FLUOR FERNALD CLOSURE PLAN
BASIS OF ESTIMATE

PBS-11
WASTE MANAGEMENT

SEPTEMBER 2001

60600-PL-0003
REVISION 1

Section 1: MMMA – WGS Program Management

1.0 Narrative
- 1.1 Overview
  - 1.1.1 Waste Program Management
  - 1.1.2 Low Level Waste Administration
- 1.2 Assumptions/Exclusions
  - 1.2.1 Assumptions
    - 1.2.1.1 Waste Program Management
    - 1.2.1.2 Low Level Waste Administration
  - 1.2.2 Exclusions
  - 1.2.3 Government-Furnished Equipment/Services
- 1.3 Drivers
- 1.4 Scope of Work
  - 1.4.1 MMMA1 – WGS Program Management
    - 1.4.1.1 Management
    - 1.4.1.2 WGS Environmental Compliance
    - 1.4.1.3 WGS Safety and Health
    - 1.4.1.4 WGS Quality Assurance
    - 1.4.1.5 WGS Administration
    - 1.4.1.6 Waste Planning and Integration
    - 1.4.1.7 WGS Project Controls
    - 1.4.1.8 WGS Operations Administration
    - 1.4.1.9 WGS Training
    - 1.4.1.10 Task Order Writing
    - 1.4.1.11 Sanitary Waste/Recycling/Waste Minimization/Pollution Prevention Administration
  - 1.4.2 Low Level Waste Administration

2.0 Manpower Plans
- 2.1 WGS Program Management
- 2.2 LLW Administration

3.0 Estimate

4.0 Risk Plan

Section 2: MMMB – Waste Management Operations Sitewide Support

1.0 Narrative
- 1.1 Overview
- 1.2 Assumptions/Exclusions
  - 1.2.1 Assumptions
    - 1.2.1.1 MMMB1 - Waste Acceptance/Waste Characterization/Inventory Management
    - 1.2.1.2 MMMB2 – Shipping/Traffic/Container Management
    - 1.2.1.3 MMMB3 – Warehousing and Surveillance
    - 1.2.1.4 MMMB4 – Decontamination Services
  - 1.2.2 Exclusions
  - 1.2.3 Government-Furnished Equipment/Services
  - 1.2.4 General
- 1.3 Drivers
  - 1.3.1 Administrative Drivers
  - 1.3.2 Physical Drivers
  - 1.3.3 Shipping/Traffic/Container Management
  - 1.3.4 Warehousing and Surveillance
  - 1.3.5 Decontamination Services
  - 1.3.6 General
- 1.4 Project Physical Description
  - 1.4.1 MMMB1 - Waste Acceptance/Waste Characterization/Inventory Management
  - 1.4.2 Shipping/Traffic/Container Management
  - 1.4.3 Warehousing and Surveillance
  - 1.4.4 Decontamination Services
- 1.5 Project Plan/Technical Scope and Quantification
  - 1.5.1 MMMB1 – Waste Acceptance/Waste Characterization/Inventory Management
  - 1.5.2 MMMB2 – Shipping/Traffic/Container Management
    - 1.5.2.1 Packaging
    - 1.5.2.2 Shipping
  - 1.5.3 MMMB3 – Warehousing and Surveillance
  - 1.5.4 MMMB4 – Decontamination Services
    - 1.5.4.1 Cleaning
    - 1.5.4.2 Preparing Rolling Stock
    - 1.5.4.3 Pumping Sumps at the FEMP

2.0 Manpower Plans
- 2.1 Waste Acceptance/Waste Characterization/Inventory Management
- 2.2 Shipping/Traffic/Container Management
- 2.3 Warehousing and Surveillance
- 2.4 Decontamination Services

3.0 Estimate

4.0 Risk Plan

Section 3: MMMC – LLW Trash

1.0 Narrative
- 1.1 Overview
- 1.2 Assumptions/Exclusions
  - 1.2.1 Assumptions
    - 1.2.1.1 General
    - 1.2.1.2 Contaminated Dumpster Trash
    - 1.2.1.3 Debris/Non-Compactible Trash
    - 1.2.1.4 Yard Scrap/Rolling Stock/Excess Containers
    - 1.2.1.5 OSDF
    - 1.2.1.6 NTS
  - 1.2.2 Exclusions
    - 1.2.2.1 Contaminated Dumpster Trash
    - 1.2.2.2 Debris/Non-Compactible Trash
    - 1.2.2.3 Yard Scrap/Rolling Stock/Excess Containers
  - 1.2.3 Government-Furnished Equipment/Services
- 1.3 Drivers
  - 1.3.1 Events
  - 1.3.2 Requirements
- 1.4 Project Physical Description
  - 1.4.1 Task #1 - MMMC1 – Compactible Dumpster Trash
  - 1.4.2 Task #2 - MMMC2 – Debris/Non-Compactible Trash
  - 1.4.3 Task #3 - MMMC3 – Yard Scrap/Rolling Stock/Excess Containers
- 1.5 Project Plan/Technical Scope and Quantification
  - 1.5.1 MMMC1 – Contaminated Dumpster Trash
    - 1) Subtask #1 – Planning
      - 1.1) Plan/Scope
      - 1.2) Quantification
    - 2) Subtask #2 – Characterization
      - 2.1) Plan/Scope
      - 2.2) Quantification
    - 3) Subtask #3 – Processing
      - 3.1) Plan/Scope
      - 3.2) Quantification
    - 4) Subtask #4 – Packaging
      - 4.1) Plan/Scope
      - 4.2) Quantification
    - 5) Subtask #5 – Shipping
      - 5.1) Plan/Scope
      - 5.2) Quantification
  - 1.5.2 MMMC2 – Debris/Non-Compactible Trash
    - 1) Subtask #1 – Planning
      - 1.1) Plan/Scope
      - 1.2) Quantification

Section 3: MMMC – LLW Trash (Continued)

2) Subtask #2 – Characterization
   2.1) Plan/Scope
   2.2) Quantification
3) Subtask #3 – Processing
   3.1) Plan/Scope
   3.2) Quantification
4) Subtask #4 – Packaging
   4.1) Plan/Scope
   4.2) Quantification
5) Subtask #5 – Shipping
   5.1) Plan/Scope
   5.2) Quantification

1.5.3 MMMC3 – Yard Scrap/Rolling Stock/Excess Containers
1) Subtask #1 – Planning
   1.1) Plan/Scope
   1.2) Quantification
2) Subtask #2 – Characterization
   2.1) Plan/Scope
   2.2) Quantification
3) Subtask #3 – Processing
   3.1) Plan/Scope
   3.2) Quantification
4) Subtask #4 – Packaging
   4.1) Plan/Scope
   4.2) Quantification
5) Subtask #5 – Shipping
   5.1) Plan/Scope
   5.2) Quantification

2.0 Schedule
3.0 Manpower Plans
   3.1 Compactible Dumpster Trash
   3.2 Non-Compactible LLW Trash
   3.3 Yard Scrap/Rolling Stock/Excess Containers
4.0 Estimate
5.0 Risk Plan

Section 4: MMMD – Asbestos Disposition

1.0 Narrative
- 1.1 Overview
- 1.2 Assumptions/Exclusions
  - 1.2.1 Assumptions
    - 1.2.1.1 General
    - 1.2.1.2 NTS
  - 1.2.2 Exclusions
  - 1.2.3 Government-Furnished Equipment/Services
- 1.3 Drivers
  - 1.3.1 Events
  - 1.3.2 Requirements
- 1.4 Project Physical Description
  - 1.4.1 Task #1 – MMMD1 – Asbestos Disposition
- 1.5 Project Plan/Technical Scope and Quantification
  - 1.5.1 MMMD1 - Asbestos Disposition
    - 1) Subtask #1 – Planning
      - 1.1) Plan/Scope
      - 1.2) Quantification
    - 2) Subtask #2 – Characterization
      - 2.1) Plan/Scope
      - 2.2) Quantification
    - 3) Subtask #3 – Processing
      - 3.1) Plan/Scope
      - 3.2) Quantification
    - 4) Subtask #4 – Packaging
      - 4.1) Plan/Scope
      - 4.2) Quantification
    - 5) Subtask #5 – Shipping
      - 5.1) Plan/Scope
      - 5.2) Quantification
    - 6) Subtask #6 – Off-Site Treatment and Disposition
      - 6.1) Plan/Scope
      - 6.2) Quantification

2.0 Schedule

3.0 Manpower Plans
- 3.1 Asbestos Disposition

4.0 Estimate

5.0 Risk Plan

Section 5: MMME – Residue Disposition

1.0 Narrative
- 1.1 Overview
- 1.2 Assumptions/Exclusions
  - 1.2.1 Assumptions
    - 1.2.1.1 General
    - 1.2.1.2 NTS
    - 1.2.1.3 Envirocare
  - 1.2.2 Exclusions
  - 1.2.3 Government-Furnished Equipment/Services
- 1.3 Drivers
  - 1.3.1 Events
  - 1.3.2 Requirements
- 1.4 Project Physical Description
  - 1.4.1 Task #1 – MMME1 – Residues (NTS) Disposition
  - 1.4.2 Task #2 – MMME2 – Residues (Envirocare) Disposition
- 1.5 Project Plan/Technical Scope and Quantification
  - 1.5.1 MMME1 - Residues (NTS) Disposition
    - 1) Subtask #1 – Planning
      - 1.1) Plan/Scope
      - 1.2) Quantification
    - 2) Subtask #2 – Characterization
      - 2.1) Plan/Scope
      - 2.2) Quantification
    - 3) Subtask #3 – Processing
      - 3.1) Plan/Scope
      - 3.2) Quantification
    - 4) Subtask #4 – Packaging
      - 4.1) Plan/Scope
      - 4.2) Quantification
    - 5) Subtask #5 – Shipping
      - 5.1) Plan/Scope
      - 5.2) Quantification
  - 1.5.2 MMME2 - Residues (Envirocare) Disposition
    - 1) Subtask #1 – Planning
      - 1.1) Plan/Scope
      - 1.2) Quantification
    - 2) Subtask #2 – Characterization
      - 2.1) Plan/Scope
      - 2.2) Quantification
    - 3) Subtask #3 – Processing
      - 3.1) Plan/Scope
      - 3.2) Quantification

Section 5: MMME – Residue Disposition (Continued)

- 4) Subtask #4 – Packaging
  - 4.1) Plan/Scope
  - 4.2) Quantification
- 5) Subtask #5 – Shipping
  - 5.1) Plan/Scope
  - 5.2) Quantification

2.0 Schedule
3.0 Manpower Plans
- 3.1 Residues (NTS) Disposition
- 3.2 Residues SP #7

4.0 Estimate
5.0 Risk Plan

Section 6: MMMF – Soils Disposition

1.0 Narrative
- 1.1 Overview
- 1.2 Assumptions/Exclusions
  - 1.2.1 Assumptions
    - 1.2.1.1 General
    - 1.2.1.2 Soils and Pit Waste
  - 1.2.2 Exclusions
  - 1.2.3 Government-Furnished Equipment/Services
- 1.3 Drivers
  - 1.3.1 Events
  - 1.3.2 Requirements
- 1.4 Project Physical Description
  - 1.4.1 Task #1 – MMMF1 – Soils Disposition
- 1.5 Project Plan/Technical Scope and Quantification
  - 1.5.1 MMMF1 - Soils Disposition
    - 1) Subtask #1 – Planning
      - 1.1) Plan/Scope
      - 1.2) Quantification
    - 2) Subtask #2 – Characterization
      - 2.1) Plan/Scope
      - 2.2) Quantification
    - 3) Subtask #3 – Processing
      - 3.1) Plan/Scope
      - 3.2) Quantification

2.0 Schedule

3.0 Manpower Plans
- 3.1 Soils Disposition

4.0 Estimate

5.0 Risk Plan

Section 7: MMMG – LLW Thorium

1.0 Narrative
- 1.1 Overview
- 1.2 Assumptions/Exclusions
  - 1.2.1 Assumptions
    - 1.2.1.1 General
    - 1.2.1.2 LLW Thorium (Thoria Gel and Thorium Residues) and Thorium Trash
    - 1.2.1.3 Thorium Requirement Treatment
  - 1.2.2 Exclusions
    - 1.2.2.1 General
  - 1.2.3 Government-Furnished Equipment/Services
- 1.3 Drivers
  - 1.3.1 Events
  - 1.3.2 Requirements
- 1.4 Project Physical Description
  - 1.4.1 Task #1 – MMMG1 – LLW Thorium
  - 1.4.2 Task #2 – MMMG2 – LLW Thorium Requiring Treatment
- 1.5 Project Plan/Technical Scope and Quantification
  - 1.5.1 MMMG1 - LLW Thorium
    - 1) Subtask #1 – Planning
      - 1.1) Plan/Scope
      - 1.2) Quantification
    - 2) Subtask #2 – Characterization
      - 2.1) Plan/Scope
      - 2.2) Quantification
    - 3) Subtask #3 – Packaging
      - 3.1) Plan/Scope
      - 3.2) Quantification
    - 4) Subtask #4 – Shipping
      - 4.1) Plan/Scope
      - 4.2) Quantification
  - 1.5.2 MMMG2 - Thorium Requiring Treatment
    - 1) Subtask #1 – Planning
      - 1.1) Plan/Scope
      - 1.2) Quantification
    - 2) Subtask #2 – Characterization
      - 2.1) Plan/Scope
      - 2.2) Quantification
    - 3) Subtask #3 – Packaging
      - 3.1) Plan/Scope
      - 3.2) Quantification
    - 4) Subtask #4 – Shipping
      - 4.1) Plan/Scope
      - 4.2) Quantification

Section 7: MMMG – LLW Thorium (Continued)

2.0 Schedule
3.0 Manpower Plans
    3.1 LLW Thorium
    3.2 Thorium Requiring Treatment
4.0 Estimate
5.0 Risk Plan

WBS DICTIONARY
CONTROL ACCOUNT/CHARGE NUMBER

U.S. DEPARTMENT OF ENERGY
WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION

1. PROJECT TITLE	2. DATE OF CONTRACT
FEMP (DEFENSE]	12/01/2000

3. IDENTIFICATION NUMBER	4. INDEX LINE NO.
DE-AC24-01OH20115	78

5. WBS ELEMENT CODE	6. WBS ELEMENT TITLE
1.1.M	PBS 11 WASTE MANAGEMENT

7. APPROVED CP NO.	8. DATE OF CHANGES
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/01/2000

9. SYSTEM DESIGN DESCRIPTION	10. BUDGET AND REPORTING NUMBER
CERCLA/ACA	EW05H3110

11. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Materials
Subcontracts
ODC's

b. TECHNICAL CONTENT:

This element provides for the administrative management of programmatic requirements associated with the management and disposition of FEMP waste. This element includes site wide support for waste management field operations. It also includes the project specific scope for planning, characterization, treatment, packaging, and shipping activities associated with the disposal of all low level contaminated waste in storage at the FEMP as of 12/01/00. Projects within this element include: Low Level Trash and Debris Disposition, Asbestos Disposition, Residue Disposition, Soils Disposition, and Low Level Thorium.

c. SCOPE OF WORK:

Administrative, operational, and project specific work scope contained within this element includes:

Waste Program Management
This element provides for the administrative management of programmatic requirements associated with the management and disposition of FEMP waste. This work scope covers the programmatic waste management services provided to FEMP waste generators, including planning, technical and administrative management, inter-project support, and integration of waste generator efforts. Work scope tasks include technical administration; health and safety; quality assurance; site waste planning and integration; project controls; operations admisistration, task orders, and training; and waste minimization, pollution

U.S. DEPARTMENT OF ENERGY
WORK BREAKDOWN STRUCTURE DICTIONARY
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9. SYSTEM DESIGN DESCRIPTION	10. BUDGET AND REPORTING NUMBER	
CERCLA/ACA	EW05H3110	

11. ELEMENT TASK DESCRIPTION

prevention, recycling, sanitary waste.

This element also contains work scope covering the planning and administration of low level waste disposition activities. This includes the administrative management for projects associated with the disposal of all low level contaminated waste in storage at the FEMP as of 12/01/00. Projects for which oversight is provided include Low Level Trash and Debris Disposition, Asbestos Disposition, Residue Disposition, Soils Disposition, and Low Level Thorium.

Waste Management Operations Site Wide Support
This element contains the programmatic management work scope, for field operation services provided to all FEMP projects and waste generators. This includes work scope for planning, administration, and management; waste acceptance/waste characterization and inventory management; shipping, traffic and container management activities; warehousing and surveillance technical oversight; and decontamination services of vehicles, tools and other equipment.

Low Level Trash and Debris
This element provides for the planning, administration/management, warehousing, surveillance, packaging, preparation, consolidation, and transfer/shipment of low level waste dumpster trash, debris, yard scrap and roll-off boxes (ROBs) to the On-Site Disposal Facility (OSDF) and/or off-site locations. These materials are to be prepared in accordance with OSDF and/or off-site location specifications and applicable transportation guidelines. Low level waste trash, debris, yard scrap, and ROBs will be managed in a manner that is consistent with the requirements of the FEMP S/RID and DOE Order 435.1. This work package covers current and future-generation contaminated dumpster trash and only debris/non-compactible waste packaged prior to December 1, 2000. This work package includes only yard scrap/excess containers (estimated 74 ROBs disposition volume), rolling stock (estimated 253 ROBs disposal volume) and site ROBs (167) inventoried as of February 28, 2001.

Asbestos Disposition
This element provides for the planning, administration/management, warehousing, surveillance, packaging, preparation, consolidation, and transfer/shipment of low level waste asbestos containing wastes for final disposition. These wastes include existing legacy and non-legacy asbestos. These wastes are to be prepared in accordance with Waste Acceptance Criteria (WAC) specifications and applicable transportation guidelines. These wastes will be managed in a manner that is consistent with the requirements of the FEMP S/RID and DOE Order 435.1.

U.S. DEPARTMENT OF ENERGY
WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION

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FEMP (DEFENSE]	12/01/2000

3. IDENTIFICATION NUMBER	4. INDEX LINE NO.
DE-AC24-01OH20115	78

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ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/01/2000

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11. ELEMENT TASK DESCRIPTION

This work package is for current low level waste asbestos containerized before December 1, 2000 and for D&D activities in Plant 5 and 6. Newly generated asbestos and asbestos containing wastes containerized after December 1, 2000 are excluded from this scope except for that generated by D&D activities in Plants 5 and 6 and the 200 cubic feet of asbestos contaminated brick. Newly generated transite and legacy transite wastes are not covered by the scope of this element.

Residues Disposition
This element provides for the planning, administration/management, warehousing, surveillance, packaging, preparation, consolidation, and transfer/shipment of low level waste residue (LLWR) resulting from historical operations and early clean-up of the FEMP. Residues are containerized uranium bearing materials that were created during refining operations at the FEMP. This scope includes disposition of these wastes at the Nevada Test Site or Envirocare of Utah. Waste containers destined for Envirocare will either be dumped at Soil Pile 7 (or equivalent). Approximately 700 containers of uncharacterized waste are also included. Process knowledge and visual inspections will be conducted to determine the disposition path for these containers. All residues will be managed and dispositioned in a manner that is consistent with the requirements of the FEMP S/RID and DOE Order 435.1. This element includes only 8,721 containers (330,942 cft) inventoried as of December 1, 2000.

Soils Disposition
This element provides for planning, coordination of characterization, processing, and management activities for disposition of low level waste (LLW) soils and pit waste, and associated containers, resulting from historical operations and the pre-ROD clean up of the FEMP. The soils and pit waste included are packaged and identified in the SWIFTS database and total 3,447 containers with 120,469 cubic feet. The anticipated final disposal path is to process this material which meets the waste acceptance criteria, through Soil Pile 7 (SP-7) to WPRAP and on to Envirocare, a commercial disposal site in Utah.

Low Level Waste Thorium
This element involves the planning, administration/management, warehousing, surveillance, packaging, preparation, processing, transportation, and disposal of low level and mixed waste thorium. Materials will fall into five primary categories for disposition: Low level waste, trash/debris, wet, mixed waste, and hydrogen generating. These wastes are to be prepared in accordance with applicable off-site location specifications and applicable transportation

U.S. DEPARTMENT OF ENERGY
WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION

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DE-AC24-01OH20115	78

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ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/01/2000

9. SYSTEM DESIGN DESCRIPTION	10. BUDGET AND REPORTING NUMBER
CERCLA/ACA	EW05H3110

11. ELEMENT TASK DESCRIPTION

guidelines. Low level and mixed waste thorium will be managed in a manner that is consistent with the requirements of the FEMP S/RID and DOE Order 435.1. This element includes only low level and mixed waste thorium (40,878 ft3 contained in 4,734 containers) packaged prior to December 1, 2000 or specifically identified within this scoping document.

U.S. DEPARTMENT OF ENERGY
WORK BREAKDOWN STRUCTURE DICTIONARY
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1.1.M.A	MANAGEMENT	
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ORIGINAL SCOPE PER CP# FY01-0115-0011-00		12/01/2000
9. SYSTEM DESIGN DESCRIPTION	10. BUDGET AND REPORTING NUMBER	
CERCLA/ACA	EW05H3110	

11. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Materials
ODC's
Subcontracts

b. TECHNICAL CONTENT:

This element provides for the administrative management of programmatic requirements associated with the management and disposition of FEMP waste. This work scope covers the programmatic waste management services provided to FEMP waste generators, including planning, technical and administrative management, inter-project support, and integration of waste generator efforts. Work scope tasks include technical administration; health and safety; quality assurance; site waste planning and integration; project controls; operations admisistration, task orders, and training; and waste minimization, pollution prevention, recycling, sanitary waste.

This element also contains work scope covering the planning and administration of low level waste disposition activities. This includes the administrative management for projects associated with the disposal of all low level contaminated waste in storage at the FEMP as of 12/01/00. Projects for which oversight is provided include Low Level Trash and Debris Disposition, Asbestos Disposition, Residue Disposition, Soils Disposition, and Low Level Thorium.

c. SCOPE OF WORK:

The scope of work for this element is segregated into two work packages (charge numbers), Waste Program Management and Low Level Waste (LLW) Administration.

Waste Program Management (MMMA1) provides for the administrative management and services associated with the oversight of FEMP waste programs. Subtasks and

U.S. DEPARTMENT OF ENERGY
WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION

1. PROJECT TITLE	2. DATE OF CONTRACT	
FEMP (DEFENSE)	12/01/2000	
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DE-AC24-01OH20115		79
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1.1.M.A	MANAGEMENT	
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ORIGINAL SCOPE PER CP# FY01-0115-0011-00		12/01/2000
9. SYSTEM DESIGN DESCRIPTION	10. BUDGET AND REPORTING NUMBER	
CERCLA/ACA	EW05H3110	

11. ELEMENT TASK DESCRIPTION

activities include:

Administrative Management
- Senior Technical Management and administration of the Waste Generator Services organization.
- Ensure that Integrated Safety Management (ISM) is incorporated into the planning, budgeting, scheduling and execution of all project work scope.
- Provide liaison with Department of Energy and the Leadership Team.

WGS Environmental Compliance
- Interpret regulatory policy and guidance in support of WGS activities.
- Provide regulatory liaison between WGS and the core group and projects.
- Coordinate regulatory reviews of USEPA/OEPA deliverables, design documents, reports, and other appropriate documentation produced by WGS.

WGS Safety and Health
- Interpret safety and health policy and guidance in support of WGS activities.
- Provide safety and health liaison between WGS and the core group and projects.
- Conduct WGS occupational safety and health assessments.
- Investigate reportable incidents and track and publish WGS safety performance indicators.
- Integrate Radiological controls into project plans and project procedures.

WGS Quality Assurance
- Implement quality assurance policy and guidance in support of all WGS activities.
- Provide quality assurance liaison between WGS and the core group and projects.
- Coordinate independent assessments of projects and functional groups in WGS.
- Prepare organizational summaries of WGS QA surveillances.
- Administration of the Nevada Test Site waste acceptance program.
- Planning and execution of WGSP project QC activities
- Conduct management assessments and self-assessments of WGS QC activities to determine compliance to requirements
- Conduct inspections, surveillance, and audits to determine conformance to specified requirements
- Coordination of WGS QC support both internally and externally to other projects
- Review and approval of quality programs of vendors and contractors
- Provide technical guidance and/or input to projects in matters relating to quality control

U.S. DEPARTMENT OF ENERGY
WORK BREAKDOWN STRUCTURE DICTIONARY
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7. APPROVED CP NO.		8. DATE OF CHANGES
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CERCLA/ACA	EW05H3110	

11. ELEMENT TASK DESCRIPTION

- Participate in WGS management assessments to determine readiness for start up of project operations activities

WGS Administration
- Implement policy and guidance for human resources, property management, space management, and records management in support of all WGS activities.
- Provide administrative liaison between WGS and the core group and project.
- Provide WGS division level commitment tracking.

Waste Planning and Integration
- Provide an initial point of contact for support of waste generators.
- Identify and resolve site waste integration issues
- Develop and maintain the Integrated Waste Management Plan to assure site wide integration.
- Review program plans and proposed changes for implementation evaluation.
- Represent the FEMP to DOE EM Integration and Disposal Cost Team.
- Facilitate waste campaign planning.
- Coordinate the development of WGS detailed work schedules.
- Develop and maintain site waste estimating bases.
- Provide scheduling support for WGS special activities, and potential activity scenarios.

WGS Project Controls
- Interpret and implement project controls policy and guidance in support of WGS activities
- Provide project controls liaison between WGS and the core groups and projects.
- Develop and analyze WGS level cost and schedule information.
- Develop and maintain monthly, the WGS baseline and forecast schedules within the FEMP Project Control System.
- Load and maintain monthly, the WGS baseline and forecast resource profiles within the FEMP Project Control System.
- Develop change control documentation in support of technical work scope changes.
- Load and maintain monthly, the quantity based earned value system.
- Status and report monthly progress against plan.
- Monitor monthly expenditures and forecast commitments against allocated funding.
- Generate monthly graphics and reports to support WGS management in assessing project status.

U.S. DEPARTMENT OF ENERGY
WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION

1. PROJECT TITLE FEMP (DEFENSE)	2. DATE OF CONTRACT 12/01/2000
3. IDENTIFICATION NUMBER DE-AC24-01OH20115	4. INDEX LINE NO. 79
5. WBS ELEMENT CODE 1.1.M.A	6. WBS ELEMENT TITLE MANAGEMENT
7. APPROVED CP NO. ORIGINAL SCOPE PER CP# FY01-0115-0011-00	8. DATE OF CHANGES 12/01/2000
9. SYSTEM DESIGN DESCRIPTION CERCLA/ACA	10. BUDGET AND REPORTING NUMBER EW05H3110

11. ELEMENT TASK DESCRIPTION

Operations Administration
- Coordinate and develop WGS specific procedures and review and maintain existing procedures.
- Coordinate and administer the program for required reading and lessons learned.
- Coordinate WGS participation in the Fluor Fernald site procedure system.
- Provide WGS documentation and forms administration
- Support Technical Basis Development

Training
- Develop the WGS training program per site requirements.
- Support training and briefings, support materials, training qualification plans and class presentations.
- Coordinate interface of site core training group and other organizations.

Task Order Writing
- Coordinate task order development activities including but not limited to the review of procedures, task walkdowns, permits and permissives, safety reviews, and provide corrective actions.
- Maintain records of completed task order documentation.

Sanitary Waste/Recycling/Waste Minimization/Pollution Prevention
Administration and oversight for the Reuse Electronic Bulletin Board, Toner Cartridges Recycle Program, Paper/Cardboard Recycling Program, Aluminum Can Recycling Program, Scrap Tire Recycling Program, Green-Is-Clean, Sanitary Waste Disposal, Waste Minimization, and Pollution Prevention.

Low Level Waste Administration (MMMA2) provides for the administrative management associated with specific, Low Level Waste projects. Work scope activities include status reporting and presentations, customer interface, cost account and management activities, invoice processing, administrative support and other general duties as well as integration with other PBS's.

WORK SCOPE DEFINITION
(Control Account)

1. PROJECT TITLE FEMP (DEFENSE)	2. DATE 12/01/2000	Page 1
3. WBS ELEMENT CODE 1.1.M.A	4. WBS ELEMENT TITLE/NAME MANAGEMENT	
5. PERFORMING DIV/DEPARTMENT CODE 51	6. ORIGINATOR NAME/PHONE J. BUCKLEY - EXT. 3232	7. WBS ELEMENT MANAGER J. BUCKLEY - EXT. 3232
8. BUDGET AND REPORTING NUMBER EW05H3110	9. BUDGET TITLE WASTE MANAGEMENT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? ORIGINAL SCOPE PER CP# FY01-0115-0011-00		11. ESTIMATED START / COMPLETION DATE 12/2000 - 09/2009
12. TASK IDENTIFICATION (CONTROL ACCOUNT) MMMA	13. TASK DESCRIPTION (ONE LINE) WGS MANAGEMENT	

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Material
Subcontracts
ODCs

b. TECHNICAL CONTENT:

This control account provides for the administrative management of programmatic requirements associated with the management and disposition of FEMP waste. This work scope covers the programmatic waste management services provided to FEMP waste generators, including planning, technical and administrative management, inter-project support, and integration of waste generator efforts. Work scope tasks include technical administration; health and safety; quality assurance; site waste planning and integration; project controls; operations administration, task orders, and training; and waste minimization, pollution prevention, recycling, sanitary waste.

This control account also contains work scope covering the planning and administration of low level waste disposition activities. This includes the administrative management for projects associated with the disposal of all low level contaminated waste in storage at the FEMP as of 12/01/00. Projects for which oversight is provided include Low Level Trash and Debris Disposition, Asbestos Disposition, Residue Disposition, Soils Disposition, and Low Level Thorium.

c. SCOPE OF WORK:

The scope of work for this control account is segregated into two work packages

Project Manager	Control Account Manager	Control Team Manager

WORK SCOPE DEFINITION
(Control Account)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 2

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.M.A	MANAGEMENT

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	J. BUCKLEY - EXT. 3232	J. BUCKLEY - EXT. 3232

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3110	WASTE MANAGEMENT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/2000 - 09/2009

12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ONE LINE)
MMMA	WGS MANAGEMENT

14. ELEMENT TASK DESCRIPTION

(charge numbers), Waste Program Management and Low Level Waste (LLW) Administration.

Waste Program Management (MMMA1) provides for the administrative management and services associated with the oversight of FEMP waste programs. Subtasks and activities include:

Administrative Management
- Senior Technical Management and administration of the Waste Generator Services organization.
- Provide liaison with Department of Energy and the Leadership Team.
- Ensure that Integrated Safety Management (ISM) is incorporated into the planning, budgeting, scheduling and execution of all project work scope.

WGS Environmental Compliance
- Interpret regulatory policy and guidance in support of WGS activities.
- Provide regulatory liaison between WGS and the core group and projects.
- Coordinate regulatory reviews of USEPA/OEPA deliverables, design documents, reports, and other appropriate documentation produced by WGS.

WGS Safety and Health
- Interpret safety and health policy and guidance in support of WGS activities.
- Provide safety and health liaison between WGS and the core group and projects.
- Conduct WGS occupational safety and health assessments.
- Investigate reportable incidents and track and publish WGS safety performance indicators.
- Integrate Radiological controls into project plans and project procedures.

WGS Quality Assurance
- Implement quality assurance policy and guidance in support of all WGS activities.
- Provide quality assurance liaison between WGS and the core group and projects.
- Coordinate independent assessments of projects and functional groups in WGS.
- Prepare organizational summaries of WGS QA surveillances.
- Administration of the Nevada Test Site waste acceptance program.
- Planning and execution of WGSP project QC activities
- Conduct management assessments and self-assessments of WGS QC activities to

WORK SCOPE DEFINITION
(Control Account)

1. PROJECT TITLE FEMP (DEFENSE)	2. DATE 12/01/2000	Page 3
3. WBS ELEMENT CODE 1.1.M.A	4. WBS ELEMENT TITLE/NAME MANAGEMENT	
5. PERFORMING DIV/DEPARTMENT CODE 51	6. ORIGINATOR NAME/PHONE J. BUCKLEY - EXT. 3232	7. WBS ELEMENT MANAGER J. BUCKLEY - EXT. 3232
8. BUDGET AND REPORTING NUMBER EW05H3110	9. BUDGET TITLE WASTE MANAGEMENT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? ORIGINAL SCOPE PER CP# FY01-0115-0011-00		11. ESTIMATED START / COMPLETION DATE 12/2000 - 09/2009
12. TASK IDENTIFICATION (CONTROL ACCOUNT) MMMA	13. TASK DESCRIPTION (ONE LINE) WGS MANAGEMENT	

14. ELEMENT TASK DESCRIPTION

determine compliance to requirements
- Conduct inspections, surveillance, and audits to determine conformance to specified requirements
- Coordination of WGS QC support, both internally and externally to other projects
- Review and approval of quality programs of vendors and contractors
- Provide technical guidance and/or input to projects in matters relating to quality control
- Participate in WGS management assessments to determine readiness for start up of project operations activities

WGS Administration
- Implement policy and guidance for human resources, property management, space management, and records management in support of all WGS activities.
- Provide administrative liaison between WGS and the core group and project.
- Provide WGS division level commitments tracking.

Waste Planning and Integration
- Provide an initial point of contact for support of waste generators.
- Identify and resolve site waste integration issues
- Develop and maintain the Integrated Waste Management Plan to assure site wide integration.
- Review program plans and proposed changes for implementation evaluation.
- Represent the FEMP to DOE EM Integration and Disposal Cost Team.
- Facilitate waste campaign planning.
- Coordinate the development of WGS detailed work schedules.
- Develop and maintain site waste estimating bases.
- Provide scheduling support for WGS special activities, and potential activity scenarios.

WGS Project Controls
- Interpret and implement project controls policy and guidance in support of WGS activities
- Provide project controls liaison between WGS and the core groups and projects.
- Develop and analyze WGS level cost and schedule information.
- Develop and maintain monthly, the WGS baseline and forecast schedules within the FEMP Project Control System.

WORK SCOPE DEFINITION
(Control Account)

1. PROJECT TITLE FEMP (DEFENSE)	2. DATE 12/01/2000	Page 4
3. WBS ELEMENT CODE 1.1.M.A	4. WBS ELEMENT TITLE/NAME MANAGEMENT	
5. PERFORMING DIV/DEPARTMENT CODE 51	6. ORIGINATOR NAME/PHONE J. BUCKLEY - EXT. 3232	7. WBS ELEMENT MANAGER J. BUCKLEY - EXT. 3232
8. BUDGET AND REPORTING NUMBER EW05H3110	9. BUDGET TITLE WASTE MANAGEMENT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? ORIGINAL SCOPE PER CP# FY01-0115-0011-00		11. ESTIMATED START / COMPLETION DATE 12/2000 - 09/2009
12. TASK IDENTIFICATION (CONTROL ACCOUNT) MMMA	13. TASK DESCRIPTION (ONE LINE) WGS MANAGEMENT	

14. ELEMENT TASK DESCRIPTION

- Load and maintain monthly, the WGS baseline and forecast resource profiles within the FEMP Project Control System.
- Develop change control documentation in support of technical work scope changes.
- Load and maintain monthly, the quantity based earned value system.
- Status and report monthly progress against plan.
- Monitor monthly expenditures and forecast commitments against allocated funding.
- Generate monthly graphics and reports to support WGS management in assessing project status.

Operations Administration
- Coordinate and develop WGS specific procedures and review and maintain existing procedures.
- Coordinate and administer the program for required reading and lessons learned.
- Coordinate WGS participation in the Fluor Fernald site procedure system.
- Provide WGS documentation and forms administration
- Support Technical Basis Development

Training
- Develop the WGS training program per site requirements.
- Support training and briefings, support materials, training qualification plans and class presentations.
- Coordinate interface of site core training group and other organizations.

Task Order Writing
- Coordinate task order development activities including but not limited to the review of procedures, task walkdowns, permits and permissives, safety reviews, and provide corrective actions.
- Maintain records of completed task order documentation.

Sanitary Waste/Recycling/Waste Minimization/Pollution Prevention
Administration and oversight for the Reuse Electronic Bulletin Board, Toner Cartridges Recycle Program, Paper/Cardboard Recycling Program, Aluminum Can Recycling Program, Scrap Tire Recycling Program, Green-Is-Clean, Sanitary Waste Disposal, Waste Minimization, and Pollution Prevention.

WORK SCOPE DEFINITION
(Control Account)

1. PROJECT TITLE FEMP (DEFENSE)	2. DATE 12/01/2000	Page 5
3. WBS ELEMENT CODE 1.1.M.A	4. WBS ELEMENT TITLE/NAME MANAGEMENT	
5. PERFORMING DIV/DEPARTMENT CODE 51	6. ORIGINATOR NAME/PHONE J. BUCKLEY - EXT. 3232	7. WBS ELEMENT MANAGER J. BUCKLEY - EXT. 3232
8. BUDGET AND REPORTING NUMBER EW05H3110	9. BUDGET TITLE WASTE MANAGEMENT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? ORIGINAL SCOPE PER CP# FY01-0115-0011-00		11. ESTIMATED START / COMPLETION DATE 12/2000 - 09/2009
12. TASK IDENTIFICATION (CONTROL ACCOUNT) MMMA	13. TASK DESCRIPTION (ONE LINE) WGS MANAGEMENT	

14. ELEMENT TASK DESCRIPTION

Low Level Waste Administration (MMMA2) provides for the administrative management associated with specific, Low Level Waste projects. Work scope activities include status reporting and presentations, customer interface, cost account and management activities, invoice processing, administrative support and other general duties as well as integration with other PBS's.

d. WORK SPECIFICALLY EXCLUDED:

1) Wastes generated and containerized after 12/01/2000 are budgeted by the waste generator.
2) The Waste Minimization/P2 scope does not include any hazardous, LLW and/or mixed wastes.

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 1

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.M.A	MANAGEMENT

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	J. BUCKLEY - EXT. 3232	J. BUCKLEY - EXT. 3232

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3110	WASTE MANAGEMENT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/2000 - 09/2009

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
MMMA1	WGS PROGRAM MANAGEMENT

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Material
Subcontracts
ODCs

b. TECHNICAL CONTENT:

This work package provides for the administrative management of programmatic requirements associated with the management and disposition of FEMP waste. This work scope covers the programmatic waste management services provided to FEMP waste generators, including planning, technical and administrative management, inter-project support, and integration of waste generator efforts. Work scope tasks include technical administration; health and safety; quality assurance; site waste planning and integration; project controls; operations administration, task orders, and training; and waste minimization, pollution prevention, recycling, sanitary waste.

c. SCOPE OF WORK:

Management
- Senior Technical Management and administration of the Waste Generator Services organization.
  a) Provide technical guidance and policy for issues concerning WGS.
  b) Establish work priorities for WGS.
  c) Integrate high level management and technical issues with other FEMP organizations and projects.
  d) Evaluate cost and schedule analysis for potential scope increases.
  e) Conduct management walk downs of facilities under WGS responsibility.

Project Manager	Control Account Manager	Control Team Manager

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 2

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.M.A	MANAGEMENT

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	J. BUCKLEY - EXT. 3232	J. BUCKLEY - EXT. 3232

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3110	WASTE MANAGEMENT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/2000 - 09/2009

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
MMMA1	WGS PROGRAM MANAGEMENT

14. ELEMENT TASK DESCRIPTION

f) Serve as the Functional Area Manager for Environmental Restoration and Waste Management (EW) and Packaging and Transportation (PT), and as such, perform the responsibilities as described in RM-0012.

g) Ensure that Integrated Safety Management (ISM) is incorporated into the planning, budgeting, scheduling and execution of all project work scope.

- Provide liaison with Department of Energy and the Leadership Team.

WGS Environmental Compliance
- Interpret regulatory policy and guidance in support of WGS activities.
- Provide regulatory liaison between WGS and the core group and projects.
- Coordinate regulatory reviews of USEPA/OEPA deliverables, design documents, reports, and other appropriate documentation produced by WGS.
- Monitor, review, and incorporate regulatory or DOE Order changes to appropriate implementing documentation.

WGS Safety and Health
- Interpret safety and health policy and guidance in support of WGS activities.
- Provide safety and health liaison between WGS and the core group and projects.
- Conduct WGS occupational safety and health assessments.
- Participate in the investigation of reportable incidents and track and publish WGS safety performance indicators.
- Manage safety and health resources assigned to WGS to assure adequate support for all projects.
- Respond to personnel contaminations and radioactive material spills.
- Gather and analyze radiological data to determine effectiveness of controls.
- Respond to audits and surveillances.
- Perform radiological incident investigation.
- Provide technical expertise to programmatic organizations as needed.
- Develop and implement manpower loading of RCTs for project support.
- Provide administrative management of projectized RCTs.

WGS Quality Assurance
- Implement quality assurance policy and guidance in support of all WGS activities.
- Provide quality assurance liaison between WGS and the core group and projects.
- Coordinate independent assessments of projects and functional groups in WGS.
- Prepare organizational summaries of WGS QA surveillances.

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 3

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.M.A	MANAGEMENT

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	J. BUCKLEY - EXT. 3232	J. BUCKLEY - EXT. 3232

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3110	WASTE MANAGEMENT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/2000 - 09/2009

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
MMMA1	WGS PROGRAM MANAGEMENT

14. ELEMENT TASK DESCRIPTION

- Manage quality assurance resources assigned to WGS to assure adequate support for all activities.
- Maintain WGS Project Quality Plan PL-3077
- Maintain and implement the NTS Compliance Waste Certification Program Plan Pl-3067 and supporting procedures for certification activities
- Maintain WGS Training and Qualification Plan TQP-63
- Provide input and ensure accuracy of Quality Assurance Section of the WGS Project Execution Plan (PEP)
- Provide Quality Control presence and input for job planning activities such as project execution and enhanced work planning.
- Provide support to the division commitment tracking representative for management and tracking for level 1,2,and 3 commitments.
- Plan the execution of WGS project QC activities.
- Review and evaluate WGS and other site projects documents, including specifications and drawings or project specific work and work orders that may affect WGS project activities.
- Review and approve WGS procurement documents
- Conduct management assessments and self-assessments of WGS QC activities to determine compliance to requirements
- Conduct inspections, surveillance, and audits to determine conformance to specified requirements
- Coordinate WGS QC support both internally and externally to other projects.
- Manage resources assigned to the Nevada Test Site Compliance group.
- Serve as the primary point of contact to the Nevada Test Site for issues regarding the NTS Waste Acceptance Criteria.
- Review and approve all waste profiles for the Nevada Test Site.
- Provide technical guidance to projects that generate, package, and ship waste to the Nevada Test Site.
- Certify LLRW meets the requirements to be shipped and disposed of at the Nevada Test Site.
- Provide for the generation and approval of project quality procedures such as Quality Assurance Job Specific Plans (QAJSP's)
- Ensure that quality records and documents are properly prepared and maintained.
- Review and approve quality control checklists for assessment activities to include inspections, surveillance, audits, and management/self assessments.
- Review and approve quality programs of vendors and contractors.

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 4

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.M.A	MANAGEMENT	
5. PERFORMING DIV/DEPARTMENT CODE	**6. ORIGINATOR NAME/PHONE**	**7. WBS ELEMENT MANAGER**
51	J. BUCKLEY - EXT. 3232	J. BUCKLEY - EXT. 3232
8. BUDGET AND REPORTING NUMBER	**9. BUDGET TITLE**	
EW05H3110	WASTE MANAGEMENT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		**11. ESTIMATED START / COMPLETION DATE**
ORIGINAL SCOPE PER CP# FY01-0115-0011-00		12/2000 - 09/2009
12. TASK IDENTIFICATION (WORK PACKAGE)	**13. TASK DESCRIPTION (ONE LINE)**	
MMMA1	WGS PROGRAM MANAGEMENT	

14. ELEMENT TASK DESCRIPTION

- Evaluate and issue nonconformance reports, and verify closure for issues and items that do not meet specified requirements.
- Update and maintain the integrated assessment schedule for WGS.
- Prepare summary reports to upper management detailing WGS performance to requirements.
- Provide technical guidance and/or input to projects in matters relating to quality control.
- Review and approve all task orders that affect packaging and shipping activities as well as others as requested by project management.
- Participate in WGS management assessments to determine readiness for start up of project operations activities.

WGS Administration
- Implement policy and guidance for human resources, property management, space management, and records management in support of all WGS activities.
- Provide WGS division level commitment tracking.

Waste Planning and Integration
- Implement DOE Order 435.1 through the development and maintenance of the FEMP Site Integrated Waste Management Plan (IWMP).
- Establish and maintain the Waste Acceptance Criteria for the FEMP waste storage facilities (Plant 1 Pad) as specified in the IWMP.
- Develop and host Waste Generators Forums to assure coordination between the waste generators and WGS.
- Assist waste generators in planning for "cradle-to-grave" management of waste. Serve to facilitate development and closeout of task orders or other work controls.
- Coordinate internal evaluations to support WGS decision-making.
- Support data calls from DOE-OH and HQ for waste inventory, disposition schedules, and cost estimates.
- Provide FEMP representation for DOE Complex Wide Environmental Management (EM) Integration and Disposal Cost Teams.
- Provide expertise to assist the DOE complex with development of waste disposition maps to determine feasibility of combining waste treatment and disposal volumes for DOE and commercial sites with the focus on Fernald legacy and future waste streams.
- Assist personnel from other DOE sites in identifying more efficient and

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 5

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.M.A	MANAGEMENT

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	J. BUCKLEY - EXT. 3232	J. BUCKLEY - EXT. 3232

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3110	WASTE MANAGEMENT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/2000 - 09/2009

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
MMMA1	WGS PROGRAM MANAGEMENT

14. ELEMENT TASK DESCRIPTION

effective ways to manage, treat, and dispose of DOE wastes and materials.
- Facilitate WGS waste campaign planning.
- Coordinate the development of WGS detailed work schedules.
- Conduct weekly reviews with WGS managers to assure internal integration and schedule accuracy.
- Develop and maintain standard estimating processes for site waste management applications.
- Provide scheduling support for WGS special activities, and potential activity scenarios.

WGS Project Controls
- Interpret and implement project controls policy and guidance in support of WGS activities.
- Provide project controls liaison between WGS and the core groups and projects.
- Develop and analyze WGS level cost and schedule information.
- Manage project controls resources assigned to WGS to assure adequate support for all activities.
- Develop and maintain monthly, the WGS baseline and forecast schedules within the FEMP Project Control System.
- Load and maintain monthly, the WGS baseline and forecast resource profiles within the FEMP Project Control System.
- Develop change control documentation in support of technical work scope changes.
- Load and maintain monthly, the quantity based earned value system.
- Status and report monthly progress against plan.
- Prepare monthly internal project review documentation.
- Prepare monthly DOE project review documentation.
- Monitor monthly expenditures and forecast commitments against allocated funding.
- Facilitate quarterly manpower planning to ensure WGS staffing levels are accurately portrayed.
- Review costs incurred and accruals monthly to ensure accurate reporting of the actual costs for work performed.
- Review open commitments monthly to ensure accurate cost reporting.
- Generate monthly graphics and reports to support WGS management in assessing project status.

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 6

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.M.A	MANAGEMENT	
5. PERFORMING DIV/DEPARTMENT CODE	**6. ORIGINATOR NAME/PHONE**	**7. WBS ELEMENT MANAGER**
51	J. BUCKLEY - EXT. 3232	J. BUCKLEY - EXT. 3232
8. BUDGET AND REPORTING NUMBER	**9. BUDGET TITLE**	
EW05H3110	WASTE MANAGEMENT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		**11. ESTIMATED START / COMPLETION DATE**
ORIGINAL SCOPE PER CP# FY01-0115-0011-00		12/2000 - 09/2009
12. TASK IDENTIFICATION (WORK PACKAGE)	**13. TASK DESCRIPTION (ONE LINE)**	
MMMA1	WGS PROGRAM MANAGEMENT	

14. ELEMENT TASK DESCRIPTION

WGS Operations Administration
- Technical Basis Development - identifies and organizes the specific technical and compliance requirements and standards applicable to the PT and EW functional areas and WGS programs and processes for incorporation in the implementing work instructions.

WGS Documentation, Procedures Development and Management Programs
- Document Development - develops project and site Functional Area documents such as manuals, plans, procedures, operator-aids, and work plans for use within WGS or related to WGS operations.
- Document Revision and Maintenance - maintains project and site Functional Area documents such as manuals, plans, procedures, operator-aids, and work plans through revisions or page changes to issued documents
- Document Cancellation - monitors active documents related to WGS Operations including site Functional Area documents and initiates/coordinates cancellation processes when documents are no longer needed
- Document Validation - supports WGS document field validation processes by facilitating validation, documenting comments, and ensuring operations interests and concerns are properly resolved.
- Document Verification - coordinates and oversees verification of site Functional Area and WGS documents. Ensures compliance with applicable federal law, state law, agreements with regulatory agencies, commitments, and DOE requirements. Ensures applicable site commitments, corrective actions, standards, and management expectations are reflected in site and WGS documents.
- Document Categorization/Safety Basis Review - coordinates and oversees categorization and safety basis reviews for WGS and WGS-related site Functional Area documents.
- Document Periodic Review - tracks document periodic review due dates and facilitates timely review and revision of WGS Project and site Functional Area documents to maintain compliance with document periodic review requirements
- Document Controlled Distribution - distributes controlled copies of WGS documents to WGS document stations.
- Records Management and Disposition - maintains paper and electronic records related to the WGS document management, required reading, lessons learned, self-assessments, and compliance assurance programs.
- Form Administration - develops, maintains, and cancels forms used by the WGS project and several site Functional Areas related to WGS operations.

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 7

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.M.A	MANAGEMENT

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	J. BUCKLEY - EXT. 3232	J. BUCKLEY - EXT. 3232

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3110	WASTE MANAGEMENT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/2000 - 09/2009

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
MMMA1	WGS PROGRAM MANAGEMENT

14. ELEMENT TASK DESCRIPTION

- Long-Term Order Administration - provides administrative support for the development, processing, distribution, and maintenance of WGS long-tern orders.
- Document User Notifications - ensures WGS supervisors, managers, and technical support personnel are notified of new, revised and cancelled documents through electronic mail messages.
- Required Reading Program Administration - administers the WGS Required Reading program by providing the WGS Required Reading Coordinator, preparing required reading items for distribution, and tracking the progress and completion of required reading items assigned to WGS personnel.
- Lessons Learned Program Administration - administers the WGS Lessons Learned program by providing the WGS Lessons Learned Coordinator and preparing WGS-related lessons learned items for distribution.
- Self-Assessment - conducts self-assessments of controlled document stations, electronic document files, OSS-related records, and the document management database on a scheduled basis as tracked through the commitment tracking system.
- Surveillance/Assessment/Audit Support - provides periodic support for surveillances and audits as audit/assessment team members
- Compliance Assurance Program - monitors changes in site levels requirements manuals, plans and procedures to identify changes impacting WGS managed documents including PT and EW Functional Area documents. Initiates required actions to maintain compliance with site standards and requirements and external drivers as reflected in those documents.
- Operational Excellence Team - supports the WGS Operational Excellence Team, prepares meeting agendas and minutes, and coordinates and tracks completion of actions identified by the team.

WGS Training
- Develop the WGS training program per site requirements.
- Support WGS activities such as: training and briefings, support materials, training qualification plans and class presentations.
- Coordinate interface with site core training group and other organizations.

Task Order Writing
- Coordinate task order development activities including but not limited to reviewing procedures, task walk downs, permits and permissives, safety reviews, and provide corrective actions.
- Maintain records of completed task order documentation.

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 8

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.M.A	MANAGEMENT

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	J. BUCKLEY - EXT. 3232	J. BUCKLEY - EXT. 3232

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3110	WASTE MANAGEMENT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/2000 - 09/2009

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
MMMA1	WGS PROGRAM MANAGEMENT

14. ELEMENT TASK DESCRIPTION

Sanitary Waste/Recycling/Waste Minimization/Pollution Prevention Administration
- Reuse Electronic Bulletin
a) Administration/operation of the electronic bulletin board, including interaction with Information
b) Management in setup and maintaining the electronic bulletin board.
c) Reused materials will be tracked for reporting purposes with estimated dollars saved.
- Toner Cartridges Recycle Program
a) Administration for the program involves preparation of the Statement of Work for the contract and correspondence with the contractor. Also submission of shipping orders when storage lockers are full.
b) Reporting for the program is done on a semi-annual and annual basis for the Waste Generation and Pollution Prevention Progress Report.
c) Reporting for recycling updates is done quarterly.
- Paper/Cardboard Recycling Program
a) Administration for the program involves preparation of the Statement of Work for the contract and correspondence with the contractor. Changes in dumpster location or pickup rates are conveyed to the contractor.
b) Reporting for the program is done on a semi-annual and annual basis for the Waste Generation and Pollution Prevention Progress Report.
c) Reporting for recycling updates is done quarterly.

- Aluminum Can Recycling Program
a) Administration involves contacting the schools that perform the pickup and coordination with onsite personnel to allow access for them to perform the pickup.
b) Reporting for the program is done on a semi-annual and annual basis for the Waste Generation and Pollution Prevention Progress Report.
c) Reporting for recycling updates is done quarterly.
- Scrap Tire Recycling Program
a) Administration for this program includes obtaining the purchase order to dispose of the scrap tires. The task order is generated and any miscellaneous shipping paperwork is handled.
b) Reporting for the program is done on a semi-annual and annual basis for the Waste Generation and Pollution Prevention Progress Report.

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 9

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.M.A	MANAGEMENT

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	J. BUCKLEY - EXT. 3232	J. BUCKLEY - EXT. 3232

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3110	WASTE MANAGEMENT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/2000 - 09/2009

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
MMMA1	WGS PROGRAM MANAGEMENT

14. ELEMENT TASK DESCRIPTION

c) Reporting for recycling updates is done quarterly.
- Green-Is-Clean
a) Administration for the program involves preparation of the Statement of Work for the contract and correspondence with the contractor.
b) Reporting for recycling updates is done quarterly.
c) Radiological surveys of 10% of the waste stream for verification of no radiological contamination and/or prohibited items.
d) Contractor collection and final disposition of the waste at an off-site sanitary landfill.
- Sanitary Waste Disposal
a) Administration for the program involves preparation of the Statement of Work for the contract and correspondence with the contractor.
b) Collection by contractor and final disposition of the waste at an off-site sanitary landfill.
- Waste Minimization
a) Development of policy and direction and administration of FEMP Recycling program.
b) Development and issuance of Semi-Annual and Annual Waste Generators/Pollution Prevention Progress Report
c) Development and issuance of Semi-Annual DOE Accomplishments Report
d) Development and issuance of quarterly recycling updates.
e) Identification of material classes which can be recycled and/or beneficially reused and the investigation of new technologies.
f) Research of changes in existing regulations and impacts to the FEMP.
g) Development and issuance of technical guidance for recycling and beneficial reuse.
h) Updates of the existing Waste Minimization/Pollution Prevention plans.

d. WORK SPECIFICALLY EXCLUDED:

1) The Waste Min/P2 scope does not include any hazardous, low level radioactive, and/or mixed wastes.

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 10

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.M.A	MANAGEMENT

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	J. BUCKLEY - EXT. 3232	J. BUCKLEY - EXT. 3232

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3110	WASTE MANAGEMENT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/2000 - 09/2009

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
MMMA1	WGS PROGRAM MANAGEMENT

14. ELEMENT TASK DESCRIPTION

2) The Waste Min/P2 scope does not include any hazardous exempted wastes.
3) The Waste Min/P2 scope does not include shipment costs for aluminum can recycling.
4) Transportation costs for onsite movement of waste to centralized bins for pickup by contractor

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 1

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.M.A	MANAGEMENT

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	TODD CLARK - EXT. 4113	J. BUCKLEY - EXT. 3232

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3110	WASTE MANAGEMENT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/2000 - 09/2009

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
MMMA2	LOW LEVEL WASTE ADMINISTRATION

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Material
Subcontracts
ODCs

b. TECHNICAL CONTENT:

This work package contains work scope covering the planning and administration of low level waste disposition activities. This includes the administrative management for projects associated with the disposal of all low-level contaminated waste in storage at the FEMP as of 12/01/00. Projects for which oversight is provided include Low Level Trash and Debris Disposition, Asbestos Disposition, Residue Disposition, Soils Disposition, and Low Level Thorium.

c. SCOPE OF WORK:

- Technical management and administration of the Low Level Waste Projects.
a) Provide guidance and policy for issues concerning low level waste.
b) Manage resources assigned to Low Level Waste Projects.
c) Provide status reporting and develop management presentations.
d) Review and process monthly invoices.

- Provide liaison with the Department of Energy and other FEMP projects.
a) Provide customer interface
b) Provide integration of activities with low level waste generators.

d. WORK SPECIFICALLY EXCLUDED:

Project Manager	Control Account Manager	Control Team Manager

SECTION 1

1.0 NARRATIVE

1. PROJECT TITLE: WASTE MANAGEMENT	2. DATE: 09/10/01	3. PBS#: 11
4. WBS ELEMENT CODE: 1.1.M.A.	5. WBS ELEMENT TITLE: WGS MANAGEMENT	
6. CAM NAME/ PHONE: JIM BUCKLEY/ 3232	7. CAM SIGNATURE:	
8. ORIGINAL/ CHANGE SCOPE/ PER CP#:	9.CONTROL ACCOUNT: MMMA	

SECTION 1: MMMA – WGS MANAGEMENT

1.0 NARRATIVE

1.1 OVERVIEW

This closure plan defines the scope of work required to perform the following tasks:

1.1.1 Waste Program Management

This work scope covers the programmatic waste management oversight provided to the FEMP. It also includes the administration of the waste minimization, pollution prevention, recycling, and sanitary waste programs.

1.1.2 Low Level Waste Administration

This work scope covers the planning and administration of the low level waste projects.

1.2 ASSUMPTIONS/EXCLUSIONS

1.2.1 Assumptions

1.2.1.1 Waste Program Management

- Site priorities support reduction requirements for current waste inventory.
- Programmatic waste management work scope will remain in PBS11 throughout the duration of site remediation.

R1-D-649

- The scope of this program will not change for the life of the FEMP with the exception of the inclusion of the Site Treatment Plan maintenance, support for Part B permit updates, and programmatic support for mixed and hazardous wastes after the conclusion of PBS10.

R1-D-601

- Facility D&D waste to be shipped off-site continues to require planning and integration programmatic support for waste management.

- Waste Pits excavation of non-typical waste requiring treatment and shipment to NTS continues to require planning and integration programmatic support for waste management.

R1-D-649

- The Site Treatment Plan (STP) will be updated and maintained on an annual basis , as necessary beginning with the submittal of the 2007 report in December 2007.

- Maintenance/repairs for all facilities and equipment will be provided by PBS01.
- Administrative homes will provide necessary training for qualifications, certifications, and maintenance of those qualifications and certifications.

- The FEMP, Site Integrated Waste Management Plan (IWMP) waste generation schedules will be utilized as the basis of waste type and quantity information for waste treatment and disposition planning.

- The IWMP will be updated annually.

- Complex Wide EM Integration participation will decrease significantly by FY-03.

- Periodic travel may be required to attend EM Integration workshop sessions and project management meetings.

- Site integration will increase during project planning to ensure effective waste disposition.

- Regulatory requirements remain unchanged during the baseline performance period.

- Site Procedures will continue to be drafted, reviewed, validated, and verified compliant by the Functional Area Manager's project technical staff.

- Waste management technical support staff will continue to provide controlled document distribution services for document stations located in bases of waste management operation.

- LLRW will continue to be shipped to NTS.

- Mixed waste will continue to be disposed offsite.

- Hazardous waste will continue to be disposed offsite.

- A waste certification program will be maintained in accordance with the NTSWAC.

- Current recycling and sanitary waste contractors continue to provide these services. The current contract costs will be used to estimate the ongoing cost of these programs.

- It is assumed that the contracts for each sanitary waste disposal/recycling project will be placed for bid three times during the duration of the FEMP site cleanup, estimated to be completed in 2010.

- Waste streams covered by the Waste Minimization/Pollution Prevention/Recycling/Sanitary Waste (Waste Min/P2) program remain exempt from the CERCLA off-site rule.

- Project safety analyses will not change to impact the Waste Min/P2 program, nor will any other future project safety basis.

- Internal and external reporting requirements remain at their current level.

- The DOE will not increase the scope of the Waste Min/P2 program through existing orders or the implementation of any additional orders.

- Regulators will not increase the scope of the Waste Min/P2 program through existing regulations and Executive Orders or the implementation of any additional regulations or orders.

- The site will continue to generate sanitary waste and office products for recycle until the end of the contract.

- There will continue to be clean offices and break trailers that generate non-contaminated trash in the process area.

- The Waste Min/P2 program will provide for all dumpster/container rentals for sanitary trash, recycled paper, and cardboard.

- Dumpsters required for industrial wastes, asbestos or special projects will be rented/obtained by the generating project.

- The number of dumpsters used by the site for sanitary waste disposal/recycling will remain at the current number until FY2006. Starting in FY2007 there will be a steady decrease until the end of the contract in FY2010.

- The number of dumpsters on site will drop to half by the end of FY2006. All remaining years will see a 30% drop per year until the completion of the contract in FY2010.

- The frequency of sanitary trash, recycled paper, and cardboard pickups will not change.

- The Sealand used for temporary storage of the Green-is-Clean trash will continue to be available and the program will not be required to purchase another.

- The Green-is-Clean program will continue as is until FY2006 when it will decrease in pickup frequency. It will continue at a reduced schedule until the end of the contract in FY2010.

- As personnel are reduced at the FEMP, there will be a consistent decline in the number office products and aluminum cans for recycle.

- There will be a surge of tires for recycle in FY 2006 as the process area is decommissioned, then a drastic reduction for the remainder of the contract due to the limited number of DOE vehicles remaining.

- The Waste Min/P2 program will be responsible for the costs of transport offsite and the disposal/recycling for the following activities: tire recycling, asbestos disposal, laser cartridge recycling, and oil recycling. Any other recycling/disposal activities must be planned by the generating project with Waste Min/P2 support.

- All low level waste containerized as of December 1, 2000, becomes the responsibility of the Low Level Waste Project.

1.2.2 Exclusions

R1-D-590

- ~~Wastes generated after December 1, 2000 are the responsibility of the waste generator.~~

- The Waste Min/P2 scope does not include any hazardous, low level radioactive, and/or mixed wastes.

- The Waste Min/P2 scope does not include any hazardous exempted wastes.

- The Waste Min/P2 scope does not include the shipment costs for the aluminum can recycling. The cans are donated to local schools who are responsible for collecting the cans from a centralized location at the FEMP and transporting them to a recycling vendor.

- Transportation costs for onsite movement of waste to centralized bins for pickup by contractor.

1.2.3 Government-Furnished Equipment/Services

None

1.3 DRIVERS

- Legacy waste inventory removal.
- Mixed, Hazardous, and Low Level Waste generation activities across the site.
- Offsite waste shipments.

- DOE Order 435.1 Radioactive Waste Management
- Nevada Test Site Waste Acceptance Criteria (NTSWAC)

1.4 SCOPE OF WORK

1.4.1 MMMA1 – WGS Program Management

1.4.1.1 Management

- Senior Technical Management and administration of the Waste Generator Services organization.

  - Provide technical guidance and policy for issues concerning WGS.
  - Establish work priorities for WGS.
  - Integrate high level management and technical issues with other FEMP organizations and projects.
  - Evaluate cost and schedule analysis for potential scope increases.
  - Conduct management walk downs of facilities under WGS responsibility.
  - Serve as the Functional Area Manager for Environmental Restoration and Waste Management (EW) and Packaging and Transportation (PT), and as such, perform the responsibilities as described in RM-0012.
  - Ensure that Integrated Safety Management (ISM) is incorporated into the planning, budgeting, scheduling and execution of all project work scope.

R1-F11-066

- Provide liaison with Department of Energy and the Leadership Team.

  - Resolve technical and policy issues with the DOE.
  - Resolve site wide policy, technical, funding, and manpower issues with the Leadership Team.
  - Serve on site wide teams to enhance site productivity while reducing costs.

1.4.1.2 WGS Environmental Compliance

- Interpret regulatory policy and guidance in support of WGS activities.

- Provide regulatory liaison between WGS and the core group and projects.

- Coordinate regulatory reviews of USEPA/OEPA deliverables, design documents, reports, and other appropriate documentation produced by WGS.

- Monitor, review, and incorporate regulatory or DOE Order changes to appropriate implementing documentation.

1.4.1.3 WGS Safety and Health

- Interpret safety and health policy and guidance in support of WGS activities.

- Provide safety and health liaison between WGS and the core group and projects.
- Conduct WGS occupational safety and health assessments.
- Participate in the investigation of reportable incidents and track and publish WGS safety performance indicators.
- Manage safety and health resources assigned to WGS to assure adequate support for all projects.
- Respond to personnel contaminations and radioactive material spills.
- Gather and analyze radiological data to determine effectiveness of controls.
- Respond to audits and surveillances.
- Perform radiological incident investigation.
- Provide technical expertise to programmatic organizations as needed.
- Develop and implement manpower loading of RCTs for project support.
- Provide administrative management of projectized RCTs.

1.4.1.4 WGS Quality Assurance

- Implement quality assurance policy and guidance in support of all WGS activities.
- Provide quality assurance liaison between WGS and the core group and projects.
- Coordinate independent assessments of projects and functional groups in WGS.
- Prepare organizational summaries of WGS QA surveillances.
- Manage quality assurance resources assigned to WGS to assure adequate support for all activities.
- Maintain WGS Project Quality Plan PL-3077
- Maintain and implement the NTS Compliance Waste Certification Program Plan PI-3067 and supporting procedures for certification activities
- Maintain WGS Training and Qualification Plan TQP-63

- Provide input and ensure accuracy of Quality Assurance Section for WGS Project Execution Plan (PEP)
- Provide Quality Control presence and input for job planning activities such as project execution and enhanced work planning.
- Provide support to the division commitment tracking representative for management and tracking for level 1,2,and 3 commitments.
- Plan the execution of WGS project QC activities.
- Review and evaluate WGS and other site projects documents, including specifications and drawings or project specific work and work orders that may affect WGS project activities.
- Review and approve WGS procurement documents
- Conduct management assessments and self assessments of WGS QC activities to determine compliance to requirements
- Conduct inspections, surveillance, and audits to determine conformance to specified requirements
- Coordinate WGS QC support both internally and externally to other projects.
- Manage resources assigned to the Nevada Test Site Compliance group.
- Serve as the primary point of contact to the Nevada Test Site for issues regarding the NTS Waste Acceptance Criteria.
- Review and approve all waste profiles for the Nevada Test Site.
- Provide technical guidance to projects that generate, package, and ship waste to the Nevada Test Site.
- Certify LLRW meets the requirements to be shipped and disposed of at the Nevada Test Site.
- Provide for the generation and approval of project quality procedures such as Quality Assurance Job Specific Plans (QAJSP's)
- Ensure that quality records and documents are properly prepared and maintained.
- Review and approve quality control checklists for assessment activities to include inspections, surveillance, audits, and management/self assessments.

- Review and approve quality programs of vendors and contractors.

- Evaluate and issue nonconformance reports, and verify closure for issues and items that do not meet specified requirements.

- Update and maintain the integrated assessment schedule for WGS.
- Prepare summary reports to upper management detailing WGS performance to requirements.

- Provide technical guidance and/or input to projects in matters relating to quality control.

- Review and approve all task orders that affect packaging and shipping activities as well as others as requested by project management.

- Participate in WGS management assessments to determine readiness for start up of project operations activities.

1.4.1.5 WGS Administration

- Implement policy and guidance for human resources, property management, space management, and records management in support of all WGS activities.

- Provide WGS level tracking of commitments.

1.4.1.6 Waste Planning and Integration

- Implement DOE Order 435.1 through the development and maintenance of the FEMP Site Integrated Waste Management Plan (IWMP).

- Establish and maintain the Waste Acceptance Criteria for the FEMP waste storage facilities (Plant 1 Pad) as specified in the IWMP.

- Develop and host Waste Generators Forums to assure coordination between the waste generators and WGS.

- Assist waste generators in planning for "cradle-to-grave" management of waste. Serve to facilitate development and closeout of task orders or other work controls.

- Coordinate internal evaluations to support WGS decision-making.

- Support data calls from DOE-OH and HQ for waste inventory, disposition schedules, and cost estimates.

- Provide FEMP representation for DOE Complex Wide Environmental Management (EM) Integration and Disposal Cost Teams.

- Provide expertise to assist the DOE complex with development of waste disposition maps to determine feasibility of combining waste treatment and disposal volumes for DOE and commercial sites with the focus on Fernald legacy and future waste streams.
- Assist personnel from other DOE sites in identifying more efficient and effective ways to manage, treat, and dispose of DOE wastes and materials.
- Facilitate WGS waste campaign planning.
- Coordinate the development of WGS detailed work schedules.
- Conduct weekly reviews with WGS managers to assure internal integration and schedule accuracy.
- Develop and maintain standard estimating processes for site waste management applications.
- Provide scheduling support for WGS special activities, and potential activity scenarios.

1.4.1.7 WGS Project Controls

- Interpret and implement project controls policy and guidance in support of WGS activities.
- Provide project controls liaison between WGS and the core groups and projects.
- Develop and analyze WGS level cost and schedule information.
- Manage project controls resources assigned to WGS to assure adequate support for all activities.
- Develop and maintain monthly, the WGS baseline and forecast schedules within the FEMP Project Control System.
- Load and maintain monthly, the WGS baseline and forecast resource profiles within the FEMP Project Control System.
- Develop change control documentation in support of technical work scope changes.
- Load and maintain monthly, the quantity based earned value system.
- Status and report monthly progress against plan.
- Prepare monthly internal project review documentation.

- Prepare monthly DOE project review documentation.
- Monitor monthly expenditures and forecast commitments against allocated funding.
- Facilitate quarterly manpower planning to ensure WGS staffing levels are accurately portrayed.
- Review costs incurred and accruals monthly to ensure accurate reporting of the actual costs for work performed.
- Review open commitments monthly to ensure accurate cost reporting.
- Generate monthly graphics and reports to support WGS management in assessing project status.

1.4.1.8 WGS Operations Administration

- Technical Basis Development – identifies and organizes the specific technical and compliance requirements and standards applicable to the PT and EW functional areas and WGS programs and processes for incorporation in the implementing work instructions.
- Document Development – develops project and site Functional Area documents such as manuals, plans, procedures, operator-aids, and work plans for use within WGS or related to WGS operations.
- Document Revision and Maintenance – maintains project and site Functional Area documents such as manuals, plans, procedures, operator-aids, and work plans through revisions or page changes to issued documents
- Document Cancellation – monitors active documents related to WGS Operations including site Functional Area documents and initiates/coordinates cancellation processes when documents are no longer needed
- Document Validation – supports WGS document field validation processes by facilitating the validation, documenting comments, and ensuring operations interests and concerns are properly resolved.
- Document Verification – coordinates and oversees verification of site Functional Area and WGS documents. Ensures compliance with applicable federal law, state law, agreements with regulatory agencies, commitments, and DOE requirements. Ensures applicable site commitments, corrective actions, standards, and management expectations are reflected in site and WGS documents.

- Document Categorization/Safety Basis Review – coordinates and oversees categorization and safety basis reviews for WGS and WGS-related site Functional Area documents.

- Document Periodic Review – tracks document periodic review due dates and facilitates timely review and revision of WGS Project and site Functional Area documents to maintain compliance with document periodic review requirements

- Document Controlled Distribution – distributes controlled copies of WGS documents to WGS document stations.

- Records Management and Disposition – maintains paper and electronic records related to the WGS document management, required reading, lessons learned, self-assessments, and compliance assurance programs.

- Form Administration – develops, maintains, and cancels forms used by the WGS project and several site Functional Areas related to WGS operations.

- Long-Term Order Administration – provides administrative support for the development, processing, distribution, and maintenance of WGS long-tern orders.

- Document User Notifications – ensures WGS supervisors, managers, and technical support personnel are notified of new, revised and cancelled documents through electronic mail messages.

- Required Reading Program Administration – administers the WGS Required Reading program by providing the WGS Required Reading Coordinator, preparing required reading items for distribution, and tracking the progress and completion of required reading items assigned to WGS personnel.

- Lessons Learned Program Administration - administers the WGS Lessons Learned program by providing the WGS Lessons Learned Coordinator and preparing WGS-related lessons learned items for distribution.

- Self-Assessment – conducts self-assessments of controlled document stations, electronic document files, OSS-related records, and the document management database on a scheduled basis as tracked through the commitment tracking system.

- Surveillance/Assessment/Audit Support – provides periodic support for surveillances and audits as audit/assessment team members

- Compliance Assurance Program – monitors changes in site levels requirements manuals, plans and procedures to identify changes impacting WGS managed documents including PT and EW Functional Area documents. Initiates required actions to maintain compliance with site standards and requirements and external drivers as reflected in those documents.

- Operational Excellence Team – supports the WGS Operational Excellence Team, prepares meeting agendas and minutes, and coordinates and tracks completion of actions identified by the team.

1.4.1.9 WGS Training

- Develop the WGS training program per site requirements.
- Support WGS activities such as: training and briefings, support materials, training qualification plans and class presentations.
- Coordinate interface with site core training group and other organizations.

1.4.1.10 Task Order Writing

- Coordinate task order development activities including but not limited to reviewing procedures, task walk downs, permits and permissives, safety reviews, and provide corrective actions.
- Maintain records of completed task order documentation.

1.4.1.11 Sanitary Waste/Recycling/Waste Minimization/Pollution Prevention Administration

- Reuse Electronic Bulletin
  - Administration/operation of the electronic bulletin board, including interaction with Information Management in setup and maintaining the electronic bulletin board.
  - Reused materials will be tracked for reporting purposes with estimated dollars saved.
- Toner Cartridges Recycle Program
  - Administration for the program involves preparation of the Statement of Work for the contract and correspondence with the contractor. Also submission of shipping orders when storage lockers are full.
  - Reporting for the program is done on a semi-annual and annual basis for the Waste Generation and Pollution Prevention Progress Report.
  - Reporting for recycling updates is done quarterly.

- Paper/Cardboard Recycling Program

  - Administration for the program involves preparation of the Statement of Work for the contract and correspondence with the contractor. Changes in dumpster location or pickup rates are conveyed to the contractor.

  - Reporting for the program is done on a semi-annual and annual basis for the Waste Generation and Pollution Prevention Progress Report.

  - Reporting for recycling updates is done quarterly.

- Aluminum Can Recycling Program

  - Administration involves contacting the schools that perform the pickup and coordination with onsite personnel to allow access for them to perform the pickup.

  - Reporting for the program is done on a semi-annual and annual basis for the Waste Generation and Pollution Prevention Progress Report.

  - Reporting for recycling updates is done quarterly.

- Scrap Tire Recycling Program

  - Administration for this program includes obtaining the purchase order to dispose of the scrap tires. The task order is generated and any miscellaneous shipping paperwork is handled.

  - Reporting for the program is done on a semi-annual and annual basis for the Waste Generation and Pollution Prevention Progress Report.

  - Reporting for recycling updates is done quarterly.

- Green-Is-Clean

  - Administration for the program involves preparation of the Statement of Work for the contract and correspondence with the contractor.

  - Reporting for recycling updates is done quarterly.

  - Radiological surveys of 10% of the waste stream for verification of no radiological contamination and/or prohibited items.

  - Collection by contractor and final disposition of the waste at an off-site sanitary landfill.

- Sanitary Waste Disposal

  - Administration for the program involves preparation of the Statement of Work for the contract and correspondence with the contractor.

  - Reporting for the program is done on a semi-annual and annual basis for the Waste Generation and Pollution Prevention Progress Report.

  - Reporting for recycling updates is done quarterly.

  - Collection by contractor and final disposition of the waste at an off-site sanitary landfill.

- Waste Minimization

  - Development of policy and direction and administration of FEMP Recycling program.

  - Development and issuance of Semi-Annual and Annual Waste Generators/Pollution Prevention Progress Report

  - Development and issuance of Semi-Annual DOE Accomplishments Report

  - Development and issuance of quarterly recycling updates.

  - Identification of material classes which can be recycled and/or beneficially reused and the investigation of new technologies.

  - Research of changes in existing regulations and impacts to the FEMP.

  - Development and issuance of technical guidance for recycling and beneficial reuse.

  - Updates of the existing Waste Minimization/Pollution Prevention plans.

- Pollution Prevention

  - Issue the Affirmative Procurement Report.
  - Development and updates of the Manual.

1.4.2 <u>MMMA2 – LLW Administration</u>

- Technical management and administration of the Low Level Waste Projects.

  - Provide guidance and policy for issues concerning low level waste.
  - Manage resources assigned to Low Level Waste Projects.

- Provide status reporting and develop management presentations.
- Review and process monthly invoices.

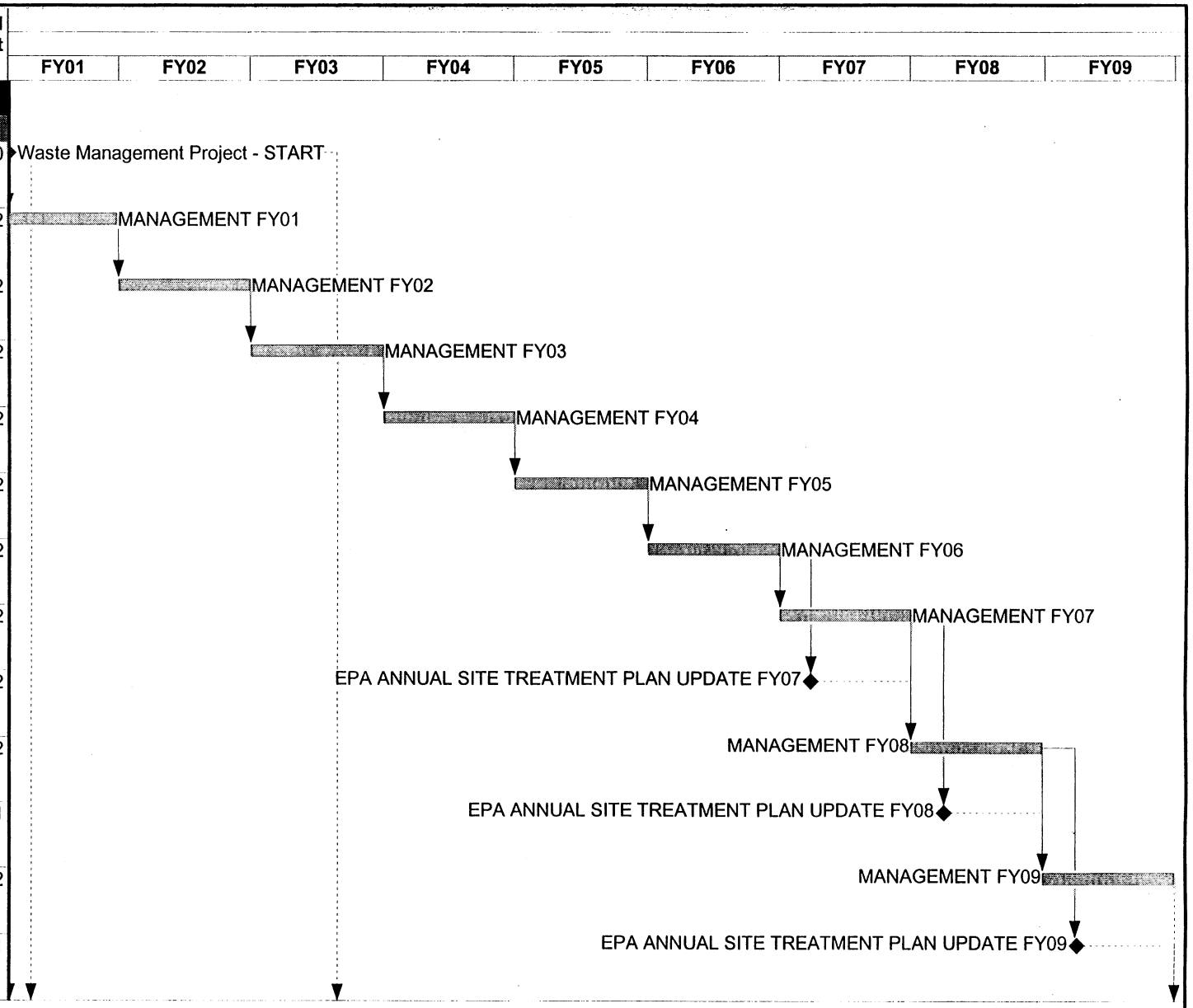
- Provide liaison with the Department of Energy and other FEMP projects.

  - Provide customer interface
  - Provide integration of activities with low level waste generators.

SECTION 1

2.0 SCHEDULE

Activity ID	Orig Dur	Baseline Early start	Baseline Early finish	Total Float
PBS 11 - WASTE MANAGEMENT				
WGS PROGRAM MANAGEMENT				
MMPBS11001	0	01DEC00		0
MMMA1MGT01	186	01DEC00	27SEP01	2
MMMA1MGT02	224	01OCT01	30SEP02	2
MMMA1MGT03	224	01OCT02	30SEP03	2
MMMA1MGT04	225	01OCT03	30SEP04	2
MMMA1MGT05	224	01OCT04	30SEP05	2
MMMA1MGT06	223	03OCT05	29SEP06	2
MMMA1MGT07	223	02OCT06	28SEP07	2
MMEPAMILE5	0		28DEC06	172
MMMA1MGT08	223	01OCT07	26SEP08	2
MMEPAMILE6	0		31DEC07	171
MMMA1MGT09	224	29SEP08	28SEP09	2
MMEPAMILE7	0		30DEC08	171



Start Date 01DEC00 Finish Date 30SEP09 Data Date 01DEC00 Run Date 12SEP01 09:11	BLCF - MM01 Sheet 1 of 12 **FLUOR FERNALD, INC** **Waste Management Baseline Schedule #2**	Early Bar Progress Bar Critical Activity	Comment Ref: R1-D-559

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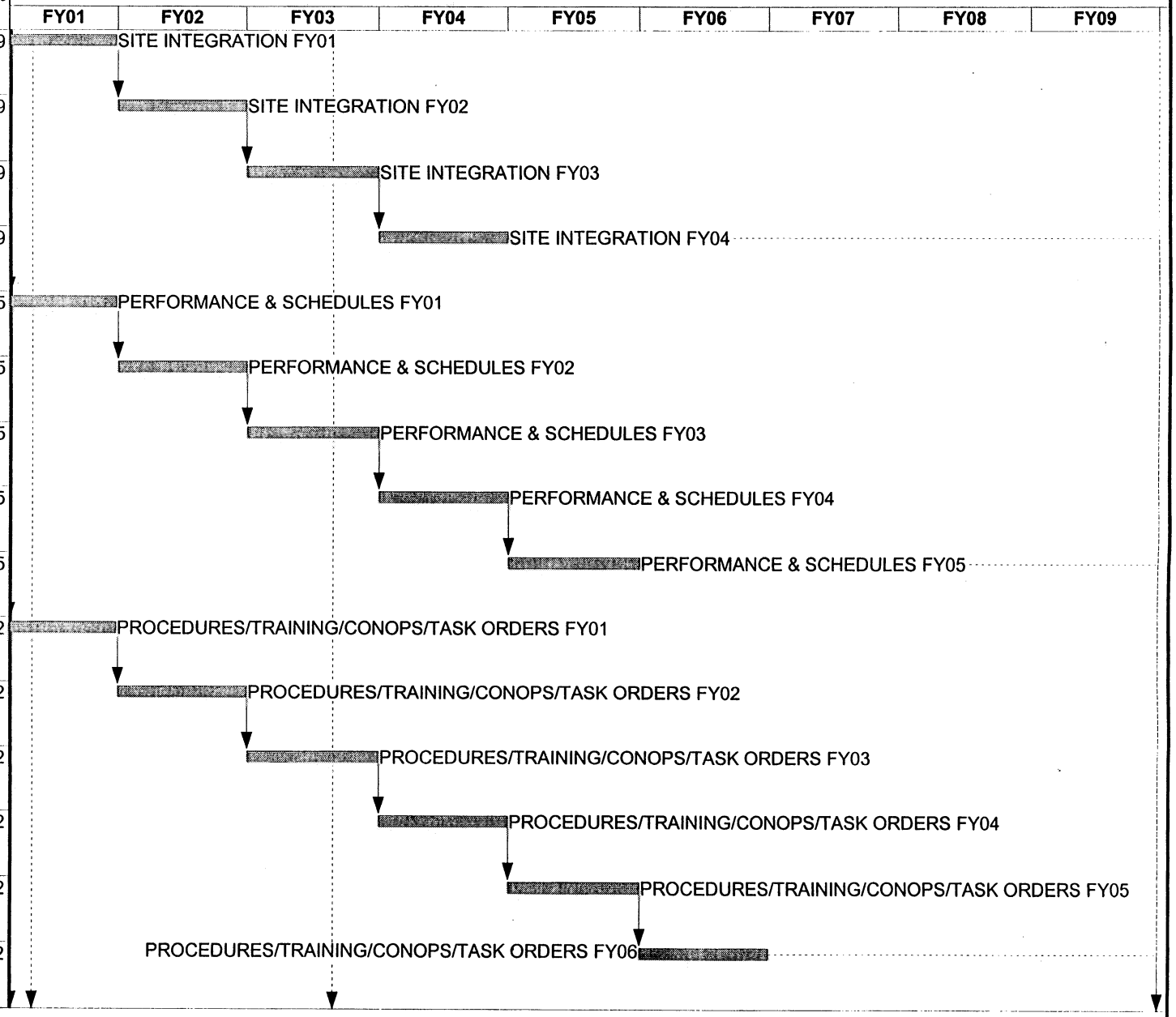
Activity ID	Orig Dur	Baseline Early start	Baseline Early finish	Total Float
MMMA1SDN01	186	01DEC00	27SEP01	1,119
MMMA1SDN02	224	01OCT01	30SEP02	1,119
MMMA1SDN03	224	01OCT02	30SEP03	1,119
MMMA1SDN04	225	01OCT03	30SEP04	1,119
MMMA1SCH01	186	01DEC00	27SEP01	895
MMMA1SCH02	224	01OCT01	30SEP02	895
MMMA1SCH03	224	01OCT02	30SEP03	895
MMMA1SCH04	225	01OCT03	30SEP04	895
MMMA1SCH05	224	01OCT04	30SEP05	895
MMMA1PPT01	186	01DEC00	27SEP01	672
MMMA1PPT02	224	01OCT01	30SEP02	672
MMMA1PPT03	224	01OCT02	30SEP03	672
MMMA1PPT04	225	01OCT03	30SEP04	672
MMMA1PPT05	224	01OCT04	30SEP05	672
MMMA1PPT06	223	03OCT05	29SEP06	672



Start Date	01DEC00
Finish Date	30SEP09
Data Date	01DEC00
Run Date	12SEP01 09:11

BLCF - MM01

Sheet 2 of 12

FLUOR FERNALD, INC

Waste Management Baseline Schedule #2

Early Bar
Progress Bar
Critical Activity

Comment Ref: R1-D-559

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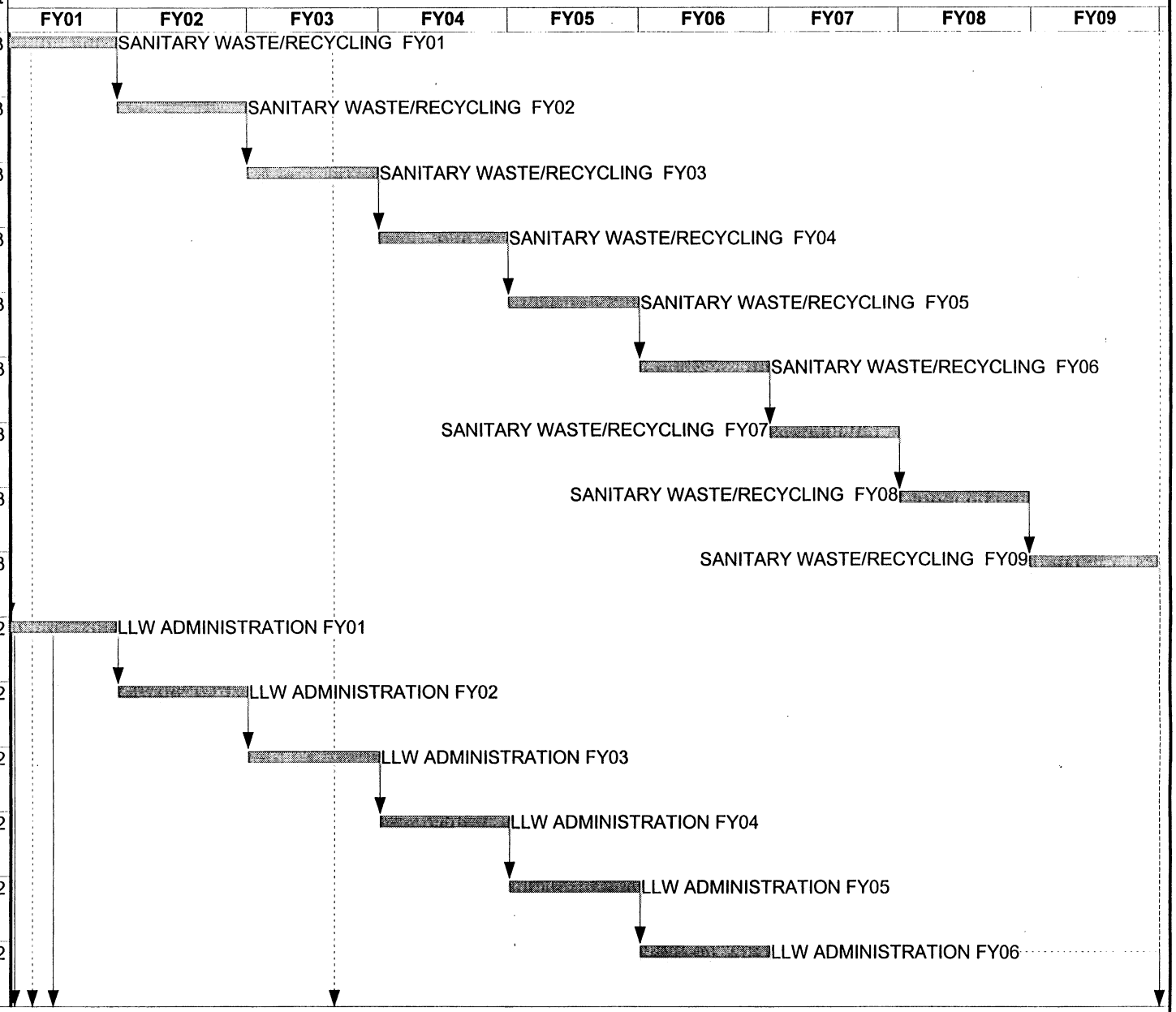
Activity ID	Orig Dur	Baseline Early start	Baseline Early finish	Total Float
MMMA1SWR01	208	01DEC00	28SEP01	3
MMMA1SWR02	250	01OCT01	30SEP02	3
MMMA1SWR03	250	01OCT02	30SEP03	3
MMMA1SWR04	251	01OCT03	30SEP04	3
MMMA1SWR05	250	01OCT04	30SEP05	3
MMMA1SWR06	249	03OCT05	29SEP06	3
MMMA1SWR07	249	02OCT06	28SEP07	3
MMMA1SWR08	249	01OCT07	26SEP08	3
MMMA1SWR09	249	29SEP08	25SEP09	3
MMMA2LLW01	186	01DEC00	27SEP01	52
MMMA2LLW02	224	01OCT01	30SEP02	672
MMMA2LLW03	224	01OCT02	30SEP03	672
MMMA2LLW04	225	01OCT03	30SEP04	672
MMMA2LLW05	224	01OCT04	30SEP05	672
MMMA2LLW06	223	03OCT05	29SEP06	672



Start Date	01DEC00	BLCF - MM01	Sheet 3 of 12
Finish Date	30SEP09		
Data Date	01DEC00		
Run Date	12SEP01 09:11		

FLUOR FERNALD, INC

Waste Management Baseline Schedule #2

Early Bar
Progress Bar
Critical Activity

Comment Ref: R1-D-559

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SECTION 1

3.0 MANPOWER

Manpower Planning Sheet (CR2)

MPS # 1MA01 WGS PROGRAM MANAGEMENT

DRIVERS	START DATE	END DATE	TOT	FY 2001 Q1 Q2 Q3 Q4	FY 2002 Q1 Q2 Q3 Q4	FY 2003 Q1 Q2 Q3 Q4	FY 2004 Q1 Q2 Q3 Q4	FY 2005 Q1 Q2 Q3 Q4	FY 2006 Q1 Q2 Q3 Q4
801 Nuclear Materials Summary	10/02/2000	05/20/2002		xxx xxx xxx xxx	xxx xxx xx				
802 Setup of Fac. & Repkg of Uranium Metals	10/02/2000	07/18/2001		xxx xxx xxx x					
803 Setup of Fac. & Repkg of < 1% Uranium	10/02/2000	08/30/2001		xxx xxx xxx xx					
804 Facilities Setup for Repkg > 1 WT% U235	10/02/2000	12/27/2001		xxx xxx xxx xxx	xxx				
805 Shipment of Nuclear Materials	10/02/2000	01/10/2002		xxx xxx xxx xxx	xxx x				
806 Nuc. Material Risk/PPE/SCA/Planning/Whse	10/02/2000	05/20/2002		xxx xxx xxx xxx	xxx xxx xx				
807 Small Scale Processing of Nuclear Material	10/02/2000	01/30/2001		xxx x					
808 UWD Depleted LLW & Depleted Ingots	10/02/2000	04/17/2002		xxx xxx xxx xxx	xxx xxx x				
809 Enriched Oxide/Metal & Residue	10/02/2000	01/06/2003		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx x			
810 UWD Planning	10/02/2000	09/30/2003		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx			
811 PPE & SCA Support for UWD Activities	07/23/2001	10/16/2003		xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	x		
812 UWD RCRA Materials	02/04/2002	01/20/2004			xx xxx xxx	xxx xxx xxx xxx	xxx x		
813 Feas. Study Processing Uranium Waste	10/01/2002	06/18/2003				xxx xxx xxx			
814 UWZ Design/Const/Treat/Ship	10/02/2003	09/29/2005					xxx xxx xxx xxx	xxx xxx xxx xxx	
1001 Mixed Waste Summary	10/02/2000	09/30/2003		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx			
1002 SSD MW DISPOSITION	10/02/2000	09/30/2002		xxx xxx xxx xxx	xxx xxx xxx xxx				
1003 Thorium Stabilization	10/02/2000	01/09/2001		xxx x					
1004 Neutralization Precipitation Deactivation	10/02/2000	01/25/2001		xxx x					
1005 Char/Pack/Ship Hazardous Waste	10/02/2000	09/28/2001		xxx xxx xxx xxx					
1006 Organic Treatment Project (PCB)	10/02/2000	07/02/2003		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx x			
1007 Thorium Mixed Waste	10/02/2000	07/15/2003		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx x			
1008 Mixed Waste Admin	10/02/2000	09/30/2003		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx			
1009 Inorganic Small Quantity	10/01/2001	07/18/2002			xxx xxx xxx x				
1010 DECONTAMINATION/MACROENCAPULATIO	01/02/2001	01/16/2002		xxx xxx xxx	xxx x				
1011 INORGANIC SAMPLE DISPOSITION	01/02/2001	01/16/2002		xxx xxx xxx	xxx x				
1012 LIQUID AWWT	10/02/2000	11/16/2000		xx					
1013 LIQUID TSCA	10/02/2000	03/28/2002		xxx xxx xxx xxx	xxx xxx				
1101 Low Level Waste Summary	10/02/2000	09/30/2005		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	
1102 Low Level Waste Processing and Packaging	10/02/2000	03/26/2001		xxx xxx					
1103 Low Level Waste Residues to NTS	10/02/2000	09/27/2001		xxx xxx xxx xxx					
1104 Low Level Waste Soil	10/02/2000	03/05/2002		xxx xxx xxx xxx	xxx xxx				
1105 LLW Noncompactable Trash	10/02/2000	07/31/2002		xxx xxx xxx xxx	xxx xxx xxx x				
1106 Low Level Waste Asbestos	10/02/2000	09/30/2002		xxx xxx xxx xxx	xxx xxx xxx xxx				
1107 Low Level Waste Residues to Envirocare	10/02/2000	09/30/2003		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx			
1108 Low Level Waste Administration	10/02/2000	09/29/2006		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx
1109 LLW Compactable Trash	10/02/2000	09/29/2006		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx
1110 LLW Waste Pit	11/30/2000	02/20/2001		xx xx					
1111 LLW THORIUM TRASH	05/29/2002	08/19/2002			xx xx				
1112 SSD LLW DISPOSITION	10/02/2000	11/21/2000		xx					

Manpower Planning Sheet (CR2)

MPS # 1MA01 WGS PROGRAM MANAGEMENT

DRIVERS	START DATE	END DATE	FY 2007 Q1 Q2 Q3 Q4	FY 2008 Q1 Q2 Q3 Q4	FY 2009 Q1 Q2 Q3 Q4	FY 2010 Q1 Q2 Q3 Q4	FY 2011 Q1 Q2 Q3 Q4
801 Nuclear Materials Summary	10/02/2000	05/20/2002					
802 Setup of Fac. & Repkg of Uranium Metals	10/02/2000	07/18/2001					
803 Setup of Fac. & Repkg of < 1% Uranium	10/02/2000	08/30/2001					
804 Facilities Setup for Repkg > 1 WT% U235	10/02/2000	12/27/2001					
805 Shipment of Nuclear Materials	10/02/2000	01/10/2002					
806 Nuc. Material Risk/PPE/SCA/Planning/Whs	10/02/2000	05/20/2002					
807 Small Scale Processing of Nuclear Material	10/02/2000	01/30/2001					
808 UWD Depleted LLW & Depleted Ingots	10/02/2000	04/17/2002					
809 Enriched Oxide/Metal & Residue	10/02/2000	01/06/2003					
810 UWD Planning	10/02/2000	09/30/2003					
811 PPE & SCA Support for UWD Activities	07/23/2001	10/16/2003					
812 UWD RCRA Materials	02/04/2002	01/20/2004					
813 Feas. Study Processing Uranium Waste	10/01/2002	06/18/2003					
814 UWZ Design/Const/Treat/Ship	10/02/2003	09/29/2005					
1001 Mixed Waste Summary	10/02/2000	09/30/2003					
1002 SSD MW DISPOSITION	10/02/2000	09/30/2002					
1003 Thorium Stabilization	10/02/2000	01/09/2001					
1004 Neutralization Precipitation Deactivation	10/02/2000	01/25/2001					
1005 Char/Pack/Ship Hazardous Waste	10/02/2000	09/28/2001					
1006 Organic Treatment Project (PCB)	10/02/2000	07/02/2003					
1007 Thorium Mixed Waste	10/02/2000	07/15/2003					
1008 Mixed Waste Admin	10/02/2000	09/30/2003					
1009 Inorganic Small Quantity	10/01/2001	07/18/2002					
1010 DECONTAMINATION/MACROENCAPULA	01/02/2001	01/16/2002					
1011 INORGANIC SAMPLE DISPOSITION	01/02/2001	01/16/2002					
1012 LIQUID AWWT	10/02/2000	11/16/2000					
1013 LIQUID TSCA	10/02/2000	03/28/2002					
1101 Low Level Waste Summary	10/02/2000	09/30/2005					
1102 Low Level Waste Processing and Packagin	10/02/2000	03/26/2001					
1103 Low Level Waste Residues to NTS	10/02/2000	09/27/2001					
1104 Low Level Waste Soil	10/02/2000	03/05/2002					
1105 LLW Noncompactable Trash	10/02/2000	07/31/2002					
1106 Low Level Waste Asbestos	10/02/2000	09/30/2002					
1107 Low Level Waste Residues to Envirocare	10/02/2000	09/30/2003					
1108 Low Level Waste Administration	10/02/2000	09/29/2006					
1109 LLW Compactable Trash	10/02/2000	09/29/2006					
1110 LLW Waste Pit	11/30/2000	02/20/2001					
1111 LLW THORIUM TRASH	05/29/2002	08/19/2002					
1112 SSD LLW DISPOSITION	10/02/2000	11/21/2000					

Manpower Planning Sheet (CR2)

MPS # 1MA01 WGS PROGRAM MANAGEMENT

DRIVERS		START DATE	END DATE	TOT	FY 2001 Q1	FY 2001 Q2	FY 2001 Q3	FY 2001 Q4	FY 2002 Q1	FY 2002 Q2	FY 2002 Q3	FY 2002 Q4	FY 2003 Q1	FY 2003 Q2	FY 2003 Q3	FY 2003 Q4	FY 2004 Q1	FY 2004 Q2	FY 2004 Q3	FY 2004 Q4	FY 2005 Q1	FY 2005 Q2	FY 2005 Q3	FY 2005 Q4	FY 2006 Q1	FY 2006 Q2	FY 2006 Q3	FY 2006 Q4
WGS Proj Dir	Project Management	Program Mgr.		17.50	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.5	0.5	0.5	0	0	0	0	0
	Administration	Executive Administrator		16.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0
Ops Manager	Project Management	Project Mgr.		32.70	1	1	1	1	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	1.5	1.5	1	0.5	0.5	0.5	0	0	0	0	0	0
	Project Management	Project Mgr.		4.00	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operations Int.	Administration	Department Administrator		18.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0
	Waste Management	Waste Engineer		53.10	1	1	1	1	4.3	4.3	4.3	4.3	4.3	4.3	4.3	3.5	3.5	3.5	3	2.5	1	1	0.5	0.5	0	0	0	0
task order syste	Project Management	Tech/Program Support Mgr.		15.80	1	1	1	1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	0.7	0.5	0.5	0.5	0	0	0	0	0	0	0	0
	Administration	Clerks		30.20	1	1	1	1	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1	1	0.5	0.5	0.5	0.5
SiteWide Integrat	Waste Management	Waste Engineering Mgr.		8.00	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Site Wide Int.	Waste Management	Waste Engineer		13.40	3	3	3.5	3.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1	0.1	0.1
Site Wide Int	Project Management	Tech/Program Support Rep.		0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Site Wide Int	Administration	Clerks		7.00	2	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Schedule/Estima	Project Management	Tech/Program Support Rep.		11.00	2	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Technical Suppo	Project Controls	Scheduler		10.50	0	0	0	0	1	1	1	1	1	1	1	1	0.5	0.5	0.5	0.5	0.5	0	0	0	0	0	0	0
Technical Supprt	Project Controls	Cost Analyst		19.50	2	2	2	2	1	1	1	1	1	1	1	1	0.5	0.5	0.5	0.5	0.5	0.5	0.1	0.1	0.1	0.1	0.1	0
Compliance- part	Environmental	Environmental Protection Rep.		4.00	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NTSC/QA	QA/QC	QA Manager		10.50	1	1	1	1	1	1	1	1	1	0.5	0.5	0.5	0	0	0	0	0	0	0	0	0	0	0	0
Operations Traini	Project Management	Tech/Program Support Rep.		5.20	1.3	1.3	1.3	1.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Procedures	Administration	Technical Writer		13.50	1	1	1	1	1	1	1	1	1	1	1	0.5	0.5	0.5	0.5	0.5	0	0	0	0	0	0	0	0
Procedures	Administration	Clerks		4.10	1.1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Procedures	Project Management	Tech/Program Support Rep.		0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Central Group	Environmental Safety & H	Rad Supervisor/Manager		3.20	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Waste Management	Waste Engineer		27.80	1.3	1.3	1.3	1.3	1.3	1.3	1	1	1	1	1	1	1	1	1	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
ISM/ Proc. Valid	General Labor	Hazwat		0.30	0	0	0	0	0.1	0	0	0	0.1	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0
SSR/Mgt Asses	Operations Labor	Engineer: Process & Startup		3.50	1	1	1	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	QA/QC	QA Engineer		9.00	0	0	0	0	1	1	1	1	1	1	1	1	0.5	0.5	0	0	0	0	0	0	0	0	0	0
			Sheet Totals:	337.80	26.50	27.40	27.90	26.40	20.30	20.20	19.90	19.90	19.00	18.40	18.40	17.10	13.30	13.00	11.50	10.50	6.00	5.50	2.60	2.10	1.20	1.20	1.20	1.10

Manpower Planning Sheet (CR2)

MPS # 1MA01 WGS PROGRAM MANAGEMENT

DRIVERS	START DATE	END DATE	FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Project Management	Program Mgr.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Administration	Executive Administrator		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Management	Project Mgr.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Management	Project Mgr.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Administration	Department Administrator		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Waste Management	Waste Engineer		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Management	Tech/Program Support Mgr.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Administration	Clerks		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0
Waste Management	Waste Engineering Mgr.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Waste Management	Waste Engineer		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Management	Tech/Program Support Rep.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Administration	Clerks		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Management	Tech/Program Support Rep.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Controls	Scheduler		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Controls	Cost Analyst		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental	Environmental Protection Rep.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QA/QC	QA Manager		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Management	Tech/Program Support Rep.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Administration	Technical Writer		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Administration	Clerks		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Management	Tech/Program Support Rep.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Rad Supervisor/Manager		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Waste Management	Waste Engineer		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0	0	0	0	0	0	0	0
General Labor	Hazwat		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operations Labor	Engineer: Process & Startup		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QA/QC	QA Engineer		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Sheet Totals:	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Manpower Planning Sheet (CR2)

MPS # 1MA02 LOW LEVEL WASTE ADMIN

	DRIVERS	START DATE	END DATE	TOT	FY 2001 Q1 Q2 Q3 Q4	FY 2002 Q1 Q2 Q3 Q4	FY 2003 Q1 Q2 Q3 Q4	FY 2004 Q1 Q2 Q3 Q4	FY 2005 Q1 Q2 Q3 Q4	FY 2006 Q1 Q2 Q3 Q4
801	Nuclear Materials Summary	10/02/2000	05/20/2002		xxx xxx xxx xxx	xxx xxx xx				
802	Setup of Fac. & Repkg of Uranium Metals	10/02/2000	07/18/2001		xxx xxx xxx x					
803	Setup of Fac. & Repkg of < 1% Uranium	10/02/2000	08/30/2001		xxx xxx xxx xx					
804	Facilities Setup for Repkg > 1 WT% U235	10/02/2000	12/27/2001		xxx xxx xxx xxx	xxx				
805	Shipment of Nuclear Materials	10/02/2000	01/10/2002		xxx xxx xxx xxx	xxx x				
806	Nuc. Material Risk/PPE/SCA/Planning/Whse	10/02/2000	05/20/2002		xxx xxx xxx xxx	xxx xxx xx				
807	Small Scale Processing of Nuclear Material	10/02/2000	01/30/2001		xxx x					
808	UWD Depleted LLW & Depleted Ingots	10/02/2000	04/17/2002		xxx xxx xxx xxx	xxx xxx x				
809	Enriched Oxide/Metal & Residue	10/02/2000	01/06/2003		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx x			
810	UWD Planning	10/02/2000	09/30/2003		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx			
811	PPE & SCA Support for UWD Activities	07/23/2001	10/16/2003		xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	x		
812	UWD RCRA Materials	02/04/2002	01/20/2004			xx xxx xxx	xxx xxx xxx xxx	xxx x		
813	Feas. Study Processing Uranium Waste	10/01/2002	06/18/2003				xxx xxx xxx			
814	UWZ Design/Const/Treat/Ship	10/02/2003	09/29/2005					xxx xxx xxx xxx	xxx xxx xxx xxx	
1001	Mixed Waste Summary	10/02/2000	09/30/2003		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx			
1002	SSD MW DISPOSITION	10/02/2000	09/30/2002		xxx xxx xxx xxx	xxx xxx xxx xxx				
1003	Thorium Stabilization	10/02/2000	01/09/2001		xxx x					
1004	Neutralization Precipitation Deactivation	10/02/2000	01/25/2001		xxx x					
1005	Char/Pack/Ship Hazardous Waste	10/02/2000	09/28/2001		xxx xxx xxx xxx					
1006	Organic Treatment Project (PCB)	10/02/2000	07/02/2003		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx x			
1007	Thorium Mixed Waste	10/02/2000	07/15/2003		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx x			
1008	Mixed Waste Admin	10/02/2000	09/30/2003		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx			
1009	Inorganic Small Quantity	10/01/2001	07/18/2002			xxx xxx xxx x				
1010	DECONTAMINATION/MACROENCAPULATIO	01/02/2001	01/16/2002		xxx xxx xxx	xxx x				
1011	INORGANIC SAMPLE DISPOSITION	01/02/2001	01/16/2002		xxx xxx xxx	xxx x				
1012	LIQUID AWWT	10/02/2000	11/16/2000		xx					
1013	LIQUID TSCA	10/02/2000	03/28/2002		xxx xxx xxx xxx	xxx xxx				
1101	Low Level Waste Summary	10/02/2000	09/30/2005		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	
1102	Low Level Waste Processing and Packaging	10/02/2000	03/26/2001		xxx xxx					
1103	Low Level Waste Residues to NTS	10/02/2000	09/27/2001		xxx xxx xxx xxx					
1104	Low Level Waste Soil	10/02/2000	03/05/2002		xxx xxx xxx xxx	xxx xxx				
1105	LLW Noncompactable Trash	10/02/2000	07/31/2002		xxx xxx xxx xxx	xxx xxx xxx x				
1106	Low Level Waste Asbestos	10/02/2000	09/30/2002		xxx xxx xxx xxx	xxx xxx xxx xxx				
1107	Low Level Waste Residues to Envirocare	10/02/2000	09/30/2003		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx			
1108	Low Level Waste Administration	10/02/2000	09/29/2006		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx
1109	LLW Compactable Trash	10/02/2000	09/29/2006		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx
1110	LLW Waste Pit	11/30/2000	02/20/2001		xx xx					
1111	LLW THORIUM TRASH	05/29/2002	08/19/2002			xx xx				
1112	SSD LLW DISPOSITION	10/02/2000	11/21/2000		xx					

Manpower Planning Sheet (CR2)

MPS # 1MA02 LOW LEVEL WASTE ADMIN

DRIVERS	START DATE	END DATE	FY 2007 Q1 Q2 Q3 Q4	FY 2008 Q1 Q2 Q3 Q4	FY 2009 Q1 Q2 Q3 Q4	FY 2010 Q1 Q2 Q3 Q4	FY 2011 Q1 Q2 Q3 Q4
801 Nuclear Materials Summary	10/02/2000	05/20/2002					
802 Setup of Fac. & Repkg of Uranium Metals	10/02/2000	07/18/2001					
803 Setup of Fac. & Repkg of < 1% Uranium	10/02/2000	08/30/2001					
804 Facilities Setup for Repkg > 1 WT% U235	10/02/2000	12/27/2001					
805 Shipment of Nuclear Materials	10/02/2000	01/10/2002					
806 Nuc. Material Risk/PPE/SCA/Planning/Whs	10/02/2000	05/20/2002					
807 Small Scale Processing of Nuclear Material	10/02/2000	01/30/2001					
808 UWD Depleted LLW & Depleted Ingots	10/02/2000	04/17/2002					
809 Enriched Oxide/Metal & Residue	10/02/2000	01/06/2003					
810 UWD Planning	10/02/2000	09/30/2003					
811 PPE & SCA Support for UWD Activities	07/23/2001	10/16/2003					
812 UWD RCRA Materials	02/04/2002	01/20/2004					
813 Feas. Study Processing Uranium Waste	10/01/2002	06/18/2003					
814 UWZ Design/Const/Treat/Ship	10/02/2003	09/29/2005					
1001 Mixed Waste Summary	10/02/2000	09/30/2003					
1002 SSD MW DISPOSITION	10/02/2000	09/30/2002					
1003 Thorium Stabilization	10/02/2000	01/09/2001					
1004 Neutralization Precipitation Deactivation	10/02/2000	01/25/2001					
1005 Char/Pack/Ship Hazardous Waste	10/02/2000	09/28/2001					
1006 Organic Treatment Project (PCB)	10/02/2000	07/02/2003					
1007 Thorium Mixed Waste	10/02/2000	07/15/2003					
1008 Mixed Waste Admin	10/02/2000	09/30/2003					
1009 Inorganic Small Quantity	10/01/2001	07/18/2002					
1010 DECONTAMINATION/MACROENCAPULA	01/02/2001	01/16/2002					
1011 INORGANIC SAMPLE DISPOSITION	01/02/2001	01/16/2002					
1012 LIQUID AWWT	10/02/2000	11/16/2000					
1013 LIQUID TSCA	10/02/2000	03/28/2002					
1101 Low Level Waste Summary	10/02/2000	09/30/2005					
1102 Low Level Waste Processing and Packagin	10/02/2000	03/26/2001					
1103 Low Level Waste Residues to NTS	10/02/2000	09/27/2001					
1104 Low Level Waste Soil	10/02/2000	03/05/2002					
1105 LLW Noncompactable Trash	10/02/2000	07/31/2002					
1106 Low Level Waste Asbestos	10/02/2000	09/30/2002					
1107 Low Level Waste Residues to Envirocare	10/02/2000	09/30/2003					
1108 Low Level Waste Administration	10/02/2000	09/29/2006					
1109 LLW Compactable Trash	10/02/2000	09/29/2006					
1110 LLW Waste Pit	11/30/2000	02/20/2001					
1111 LLW THORIUM TRASH	05/29/2002	08/19/2002					
1112 SSD LLW DISPOSITION	10/02/2000	11/21/2000					

Manpower Planning Sheet (CR2)

MPS # 1MA02 LOW LEVEL WASTE ADMIN

DRIVERS		START DATE	END DATE	TOT	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				FY 2006			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Waste Management	Waste Engineering Mgr.			3.50	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0	0	0	0	0	0	0	0	0	0	0
Waste Management	Waste Engineer			50.70	2.3	2.3	2.3	2.3	4	4	4	4	4	4	3	2.5	2	2	1.5	1	1	1	1	0.5	0.5	0.5	0.5	0.5
Project Management	Tech/Program Support Mgr.			20.00	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Project Management	Program Mgr.			4.00	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Management	Tech/Program Support Rep.			5.20	1.3	1.3	1.3	1.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Information Management	Information Records Rep.			2.40	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Administration	Clerks			14.00	1	1	1	1	1	1	1	1	1	1	0.8	0.8	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Project Controls	Cost Analyst			12.10	1	1	1	1	1	1	1	1	1	0.7	0.7	0.7	0.2	0.2	0	0.2	0.1	0.1	0.1	0.1	0	0	0	0
Environmental	Environmental Scientist Rep.			8.00	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			Sheet Totals:	119.90	9.40	9.40	9.40	9.40	8.80	8.80	8.80	8.80	7.50	7.10	5.70	5.20	3.10	2.90	2.20	1.90	1.80	1.80	1.80	1.30	1.20	1.20	1.20	1.20

Manpower Planning Sheet (CR2)

MPS # 1MA02 LOW LEVEL WASTE ADMIN

DRIVERS	START DATE	END DATE	FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Waste Management	Waste Engineering Mgr.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Waste Management	Waste Engineer		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Management	Tech/Program Support Mgr.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Management	Program Mgr.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Management	Tech/Program Support Rep.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Information Management	Information Records Rep.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Administration	Clerks		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Controls	Cost Analyst		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental	Environmental Scientist Rep.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Sheet Totals:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

SECTION 1

4.0 ESTIMATE

MMMA1

WGS PROGRAM MANAGEMENT

09/07/2001
10:24 AM

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

PBS: OHFN11
WBS: 1.1.M.A
CTRL ACCT: MMMA
CHARGE NO: MMMA1
COMMENT NO: R1-D-592, R1-D-600, R1-F11-008

DATE: 07-Sep-01
PROJECT MGR JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: CLERKS **CLERKS** **EOC: LABOR**
Res Dept: 951 **Overtime:** **Class: SAL**

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	5,378.6	2,620.5	2,620.5	2,620.5	2,158.0	873.5	174.7	174.7	173.8	0.0
Cum Hours:	5,378.6	7,999.1	10,619.6	13,240.1	15,398.1	16,271.6	16,446.3	16,621.0	16,794.8	16,794.8
Yr Total Cost:	128,495	65,895	69,796	73,912	64,475	27,883	6,045	6,372	7,045	0
Cum Total Cost:	128,495	194,390	264,187	338,098	402,573	430,456	436,501	442,873	449,918	449,918

Resource: CSTANL **COST ANALYST** **EOC: LABOR**
Res Dept: 951 **Overtime:** **Class: SAL**

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	2,904.0	1,747.0	1,747.0	873.5	503.5	127.1	0.0	0.0	0.0	0.0
Cum Hours:	2,904.0	4,651.0	6,398.0	7,271.5	7,775.0	7,902.1	7,902.1	7,902.1	7,902.1	7,902.1
Yr Total Cost:	112,966	71,532	75,766	40,117	24,495	6,606	0	0	0	0
Cum Total Cost:	112,966	184,497	260,263	300,380	324,875	331,481	331,481	331,481	331,481	331,481

Resource: DEPADM **DEPT ADMINISTRATOR** **EOC: LABOR**
Res Dept: 951 **Overtime:** **Class: SAL**

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,452.0	1,747.0	1,747.0	1,747.0	822.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,452.0	3,199.0	4,946.0	6,693.0	7,515.0	7,515.0	7,515.0	7,515.0	7,515.0	7,515.0
Yr Total Cost:	46,043	58,310	61,762	65,404	32,598	0	0	0	0	0
Cum Total Cost:	46,043	104,353	166,115	231,519	264,117	264,117	264,117	264,117	264,117	264,117

Resource: ENGPRC **ENG PROCESS/STARTUP** **EOC: LABOR**
Res Dept: 951 **Overtime:** **Class: SAL**

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,231.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,231.0	1,231.0	1,231.0	1,231.0	1,231.0	1,231.0	1,231.0	1,231.0	1,231.0	1,231.0
Yr Total Cost:	68,911	0	0	0	0	0	0	0	0	0
Cum Total Cost:	68,911	68,911	68,911	68,911	68,911	68,911	68,911	68,911	68,911	68,911

INCLUDES ESCALATION COSTS

09/07/2001
10:24 AM

PBS: OHFN11
WBS: 1.1.M.A
CTRL ACCT: MMMA
CHARGE NO: MMMA1
COMMENT NO: R1-D-592, R1-D-600, R1-F11-008

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

DATE: 07-Sep-01
PROJECT MGR JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: ENPREP **ENVIR PROTECTION REP** **EOC: LABOR**
Res Dept: 951 **Overtime:** **Class: SAL**

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,452.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0
Yr Total Cost:	70,190	0	0	0	0	0	0	0	0	0
Cum Total Cost:	70,190	70,190	70,190	70,190	70,190	70,190	70,190	70,190	70,190	70,190

Resource: EXEADM **EXEC ADMINSTRATOR** **EOC: LABOR**
Res Dept: 951 **Overtime:** **Class: SAL**

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,452.0	1,747.0	1,747.0	1,747.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,452.0	3,199.0	4,946.0	6,693.0	6,693.0	6,693.0	6,693.0	6,693.0	6,693.0	6,693.0
Yr Total Cost:	45,927	58,163	61,606	65,239	0	0	0	0	0	0
Cum Total Cost:	45,927	104,090	165,696	230,935	230,935	230,935	230,935	230,935	230,935	230,935

Resource: HAZWAT **HAZWAT** **EOC: LABOR**
Res Dept: 951 **Overtime:** **Class: HOU**

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	0.0	42.1	42.1	42.1	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	0.0	42.1	84.2	126.3	126.3	126.3	126.3	126.3	126.3	126.3
Yr Total Cost:	0	1,276	1,351	1,431	0	0	0	0	0	0
Cum Total Cost:	0	1,276	2,627	4,058	4,058	4,058	4,058	4,058	4,058	4,058

Resource: MAT300 **MATERIAL OBJCLASS300** **EOC: MATERIAL**
Res Dept: 951 **Overtime:** **Class: MAT**

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Units:	25,915.0	29,211.3	22,754.7	11,067.4	10,766.0	5,231.3	0.0	0.0	0.0	0.0
Cum Units:	25,915.0	55,126.3	77,881.0	88,948.4	99,714.4	104,945.7	104,945.7	104,945.7	104,945.7	104,945.7
Yr Total Cost:	25,915	30,000	24,000	12,000	12,000	6,000	0	0	0	0
Cum Total Cost:	25,915	55,915	79,915	91,915	103,915	109,915	109,915	109,915	109,915	109,915

INCLUDES ESCALATION COSTS

09/07/2001
10:24 AM

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

PBS: OHFN11
WBS: 1.1.M.A
CTRL ACCT: MMMA
CHARGE NO: MMMA1
COMMENT NO: R1-D-592, R1-D-600, R1-F11-008

DATE: 07-Sep-01
PROJECT MGR JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: ODCTRVL **TRAVEL RESOURCE** **EOC: ODC**
Res Dept: 951 **Overtime:** **Class: ODC**

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Units:	9,687.0	6,816.0	4,740.6	2,766.9	897.2	871.9	847.3	823.4	800.2	0.0
Cum Units:	9,687.0	16,503.0	21,243.5	24,010.4	24,907.5	25,779.4	26,626.7	27,450.2	28,250.4	28,250.4
Yr Total Cost:	9,687	7,000	5,000	3,000	1,000	1,000	1,000	1,000	1,000	0
Cum Total Cost:	9,687	16,687	21,687	24,687	25,687	26,687	27,687	28,687	29,687	29,687

Resource: PJCSCH **SCHEDULERS** **EOC: LABOR**
Res Dept: 951 **Overtime:** **Class: SAL**

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	0.0	1,747.0	1,747.0	873.5	193.5	0.0	0.0	0.0	0.0	0.0
Cum Hours:	0.0	1,747.0	3,494.0	4,367.5	4,561.0	4,561.0	4,561.0	4,561.0	4,561.0	4,561.0
Yr Total Cost:	0	97,239	102,995	54,534	12,797	0	0	0	0	0
Cum Total Cost:	0	97,239	200,234	254,768	267,565	267,565	267,565	267,565	267,565	267,565

Resource: PRJMGR **PROJECT MANAGER** **EOC: LABOR**
Res Dept: 951 **Overtime:** **Class: SAL**

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	2,904.0	5,066.3	5,066.3	1,958.5	411.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	2,904.0	7,970.3	13,036.6	14,995.1	15,406.1	15,406.1	15,406.1	15,406.1	15,406.1	15,406.1
Yr Total Cost:	258,921	475,462	503,610	206,161	45,828	0	0	0	0	0
Cum Total Cost:	258,921	734,383	1,237,993	1,444,153	1,489,982	1,489,982	1,489,982	1,489,982	1,489,982	1,489,982

Resource: PROMGR **PROGRAM MGR** **EOC: LABOR**
Res Dept: 951 **Overtime:** **Class: SAL**

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,452.0	1,747.0	1,747.0	1,747.0	635.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,452.0	3,199.0	4,946.0	6,693.0	7,328.0	7,328.0	7,328.0	7,328.0	7,328.0	7,328.0
Yr Total Cost:	136,503	172,871	183,105	193,901	74,657	0	0	0	0	0
Cum Total Cost:	136,503	309,373	492,478	686,379	761,036	761,036	761,036	761,036	761,036	761,036

INCLUDES ESCALATION COSTS

09/07/2001
10:24 AM

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

PBS: OHFN11
WBS: 1.1.M.A
CTRL ACCT: MMMA
CHARGE NO: MMMA1
COMMENT NO: R1-D-592, R1-D-600, R1-F11-008

DATE: 07-Sep-01
PROJECT MGR JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: QACENG **QA ENGINEER** **EOC: LABOR**
Res Dept: 951 **Overtime:** **Class: SAL**

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	0.0	1,747.0	1,747.0	432.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	0.0	1,747.0	3,494.0	3,926.0	3,926.0	3,926.0	3,926.0	3,926.0	3,926.0	3,926.0
Yr Total Cost:	0	84,514	89,517	23,441	0	0	0	0	0	0
Cum Total Cost:	0	84,514	174,031	197,472	197,472	197,472	197,472	197,472	197,472	197,472

Resource: QACMGR **QA MANAGER** **EOC: LABOR**
Res Dept: 951 **Overtime:** **Class: SAL**

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,452.0	1,747.0	1,084.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,452.0	3,199.0	4,283.0	4,283.0	4,283.0	4,283.0	4,283.0	4,283.0	4,283.0	4,283.0
Yr Total Cost:	78,147	98,967	65,044	0	0	0	0	0	0	0
Cum Total Cost:	78,147	177,114	242,158	242,158	242,158	242,158	242,158	242,158	242,158	242,158

Resource: RADMGR **RAD SUPERVISOR/MGR** **EOC: LABOR**
Res Dept: 951 **Overtime:** **Class: SAL**

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,161.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,161.6	1,161.6	1,161.6	1,161.6	1,161.6	1,161.6	1,161.6	1,161.6	1,161.6	1,161.6
Yr Total Cost:	69,475	0	0	0	0	0	0	0	0	0
Cum Total Cost:	69,475	69,475	69,475	69,475	69,475	69,475	69,475	69,475	69,475	69,475

Resource: SERVSUB **SUBS** **EOC: SUBCONTRACTORS**
Res Dept: 951 **Overtime:** **Class: SUB**

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Units:	57,497.0	9,737.1	4,740.6	4,611.4	2,691.5	3,487.5	0.0	0.0	0.0	0.0
Cum Units:	57,497.0	67,234.1	71,974.7	76,586.1	79,277.6	82,765.1	82,765.1	82,765.1	82,765.1	82,765.1
Yr Total Cost:	57,497	10,000	5,000	5,000	3,000	4,000	0	0	0	0
Cum Total Cost:	57,497	67,497	72,497	77,497	80,497	84,497	84,497	84,497	84,497	84,497

Resource: TECWRT **TECHNICAL WRITER** **EOC: LABOR**
Res Dept: 951 **Overtime:** **Class: SAL**

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,452.0	1,747.0	1,526.5	873.5	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,452.0	3,199.0	4,725.5	5,599.0	5,599.0	5,599.0	5,599.0	5,599.0	5,599.0	5,599.0
Yr Total Cost:	65,558	83,024	76,840	46,562	0	0	0	0	0	0
Cum Total Cost:	65,558	148,582	225,422	271,984	271,984	271,984	271,984	271,984	271,984	271,984

INCLUDES ESCALATION COSTS

09/07/2001
10:24 AM

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

PBS: OHFN11
WBS: 1.1.M.A
CTRL ACCT: MMMA
CHARGE NO: MMMA1
COMMENT NO: R1-D-592, R1-D-600, R1-F11-008

DATE: 07-Sep-01
PROJECT MGR JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: TPSMGR **TECH/PROG SUPT MGR** **EOC: LABOR**
Res Dept: 951 **Overtime:** **Class: SAL**

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,452.0	2,096.4	2,096.4	957.7	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,452.0	3,548.4	5,644.8	6,602.5	6,602.5	6,602.5	6,602.5	6,602.5	6,602.5	6,602.5
Yr Total Cost:	90,663	137,782	145,939	70,600	0	0	0	0	0	0
Cum Total Cost:	90,663	228,445	374,383	444,983	444,983	444,983	444,983	444,983	444,983	444,983

Resource: TPSREP **TECH/PROG SUPT REP** **EOC: LABOR**
Res Dept: 951 **Overtime:** **Class: SAL**

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	6,117.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	6,117.6	6,117.6	6,117.6	6,117.6	6,117.6	6,117.6	6,117.6	6,117.6	6,117.6	6,117.6
Yr Total Cost:	317,870	0	0	0	0	0	0	0	0	0
Cum Total Cost:	317,870	317,870	317,870	317,870	317,870	317,870	317,870	317,870	317,870	317,870

Resource: WSTENG **WASTE ENGINEER** **EOC: LABOR**
Res Dept: 951 **Overtime:** **Class: SAL**

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	8,137.1	9,516.2	8,906.3	7,199.5	2,158.0	873.5	873.5	873.5	869.1	0.0
Cum Hours:	8,137.1	17,653.3	26,559.6	33,759.1	35,917.1	36,790.6	37,664.1	38,537.6	39,406.7	39,406.7
Yr Total Cost:	415,236	511,145	506,706	433,751	137,721	59,558	64,566	68,053	75,243	0
Cum Total Cost:	415,236	926,381	1,433,087	1,866,838	2,004,559	2,064,118	2,128,684	2,196,737	2,271,980	2,271,980

Resource: WSTMGR **WASTE ENGINEER MGR** **EOC: LABOR**
Res Dept: 951 **Overtime:** **Class: SAL**

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,452.0	1,747.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,452.0	3,199.0	3,199.0	3,199.0	3,199.0	3,199.0	3,199.0	3,199.0	3,199.0	3,199.0
Yr Total Cost:	79,889	101,174	0	0	0	0	0	0	0	0
Cum Total Cost:	79,889	181,063	181,063	181,063	181,063	181,063	181,063	181,063	181,063	181,063

GRAND TOTALS:

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	39,449.9	35,064.5	31,824.1	21,071.8	6,881.0	1,874.1	1,048.2	1,048.2	1,042.9	0.0
Cum Hours:	39,449.9	74,514.4	106,338.5	127,410.3	134,291.3	136,165.4	137,213.6	138,261.8	139,304.7	139,304.7
Yr Total Cost:	2,077,892	2,064,355	1,978,038	1,295,052	408,571	105,047	71,611	75,425	83,288	0
Cum Total Cost:	2,077,892	4,142,246	6,120,284	7,415,336	7,823,907	7,928,954	8,000,565	8,075,990	8,159,278	8,159,278

CAM _____ CONTROL TEAM _____

INCLUDES ESCALATION COSTS

MMMA2

LOW LEVEL WASTE ADMINISTRATION

09/07/2001
10:37 AM

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

PBS: OHFN11
WBS: 1.1.M.A
CTRL ACCT: MMMA
CHARGE NO: MMMA2
COMMENT NO: R1-F11-008

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: CLERKS CLERKS EOC: LABOR
Res Dept: 951 Overtime: Class: SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,452.0	1,747.0	1,570.4	349.4	349.4	349.4	0.0	0.0	0.0	0.0
Cum Hours:	1,452.0	3,199.0	4,769.4	5,118.8	5,468.2	5,817.6	5,817.6	5,817.6	5,817.6	5,817.6
Yr Total Cost:	34,688	43,930	41,827	9,855	10,439	11,153	0	0	0	0
Cum Total Cost:	34,688	78,619	120,446	130,301	140,740	151,893	151,893	151,893	151,893	151,893

Resource: CSTANL COST ANALYST EOC: LABOR
Res Dept: 951 Overtime: Class: SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,452.0	1,747.0	1,349.2	261.0	174.7	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,452.0	3,199.0	4,548.2	4,809.2	4,983.9	4,983.9	4,983.9	4,983.9	4,983.9	4,983.9
Yr Total Cost:	56,483	71,532	58,514	11,987	8,499	0	0	0	0	0
Cum Total Cost:	56,483	128,014	186,528	198,515	207,014	207,014	207,014	207,014	207,014	207,014

Resource: ENSREP ENVIR SCIENCE REP EOC: LABOR
Res Dept: 951 Overtime: Class: SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,452.0	1,747.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,452.0	3,199.0	3,199.0	3,199.0	3,199.0	3,199.0	3,199.0	3,199.0	3,199.0	3,199.0
Yr Total Cost:	60,926	77,158	0	0	0	0	0	0	0	0
Cum Total Cost:	60,926	138,084	138,084	138,084	138,084	138,084	138,084	138,084	138,084	138,084

Resource: INRREP INFO RECORDS REP EOC: LABOR
Res Dept: 951 Overtime: Class: SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	435.6	524.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	435.6	959.7	959.7	959.7	959.7	959.7	959.7	959.7	959.7	959.7
Yr Total Cost:	12,929	16,373	0	0	0	0	0	0	0	0
Cum Total Cost:	12,929	29,302	29,302	29,302	29,302	29,302	29,302	29,302	29,302	29,302

INCLUDES ESCALATION COSTS

09/07/2001
10:37 AM

PBS: OHFN11
WBS: 1.1.M.A
CTRL ACCT: MMMA
CHARGE NO: MMMA2
COMMENT NO: R1-F11-008

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: PROMGR **PROGRAM MGR** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,452.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0
Yr Total Cost:	136,503	0	0	0	0	0	0	0	0	0
Cum Total Cost:	136,503	136,503	136,503	136,503	136,503	136,503	136,503	136,503	136,503	136,503

Resource: TPSMGR **TECH/PROG SUPT MGR** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,742.4	2,096.4	1,919.8	873.5	873.5	871.0	0.0	0.0	0.0	0.0
Cum Hours:	1,742.4	3,838.8	5,758.6	6,632.1	7,505.6	8,376.6	8,376.6	8,376.6	8,376.6	8,376.6
Yr Total Cost:	108,795	137,782	133,645	64,393	68,210	72,669	0	0	0	0
Cum Total Cost:	108,795	246,577	380,222	444,615	512,825	585,494	585,494	585,494	585,494	585,494

Resource: TPSREP **TECH/PROG SUPT REP** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,887.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,887.6	1,887.6	1,887.6	1,887.6	1,887.6	1,887.6	1,887.6	1,887.6	1,887.6	1,887.6
Yr Total Cost:	98,080	0	0	0	0	0	0	0	0	0
Cum Total Cost:	98,080	98,080	98,080	98,080	98,080	98,080	98,080	98,080	98,080	98,080

Resource: WSTENG **WASTE ENGINEER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	3,339.6	6,988.0	5,884.5	2,832.0	1,508.5	871.0	0.0	0.0	0.0	0.0
Cum Hours:	3,339.6	10,327.6	16,212.1	19,044.1	20,552.6	21,423.6	21,423.6	21,423.6	21,423.6	21,423.6
Yr Total Cost:	170,420	375,348	334,787	170,621	96,271	59,389	0	0	0	0
Cum Total Cost:	170,420	545,767	880,554	1,051,175	1,147,445	1,206,835	1,206,835	1,206,835	1,206,835	1,206,835

Resource: WSTMGR **WASTE ENGINEER MGR** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

INCLUDES ESCALATION COSTS

09/07/2001
10:37 AM

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

PBS: OHFN11
WBS: 1.1.M.A
CTRL ACCT: MMMA
CHARGE NO: MMMA2
COMMENT NO: R1-F11-008

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	435.6	524.1	391.5	84.2	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	435.6	959.7	1,351.2	1,435.4	1,435.4	1,435.4	1,435.4	1,435.4	1,435.4	1,435.4
Yr Total Cost:	23,967	30,352	24,015	5,469	0	0	0	0	0	0
Cum Total Cost:	23,967	54,319	78,334	83,804	83,804	83,804	83,804	83,804	83,804	83,804

GRAND TOTALS:

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	13,648.8	15,373.6	11,115.4	4,400.1	2,906.1	2,091.4	0.0	0.0	0.0	0.0
Cum Hours:	13,648.8	29,022.4	40,137.8	44,537.9	47,444.0	49,535.4	49,535.4	49,535.4	49,535.4	49,535.4
Yr Total Cost:	702,790	752,475	592,788	262,325	183,419	143,211	0	0	0	0
Cum Total Cost:	702,790	1,455,265	2,048,053	2,310,377	2,493,796	2,637,007	2,637,007	2,637,007	2,637,007	2,637,007

CAM James B Buckley Jr CONTROL TEAM

INCLUDES ESCALATION COSTS

SECTION 1

5.0 RISK PLAN

Risk/Opportunity Identification and Analysis Form

Project: WGS Management		PBS Number: 11			Total Baseline Dollars (Minimum Case):			$10,796,285.64		
Evaluator: J. Buckley	Date: 05/02/01	WBS Number: 1.1.M.A								
CAM:	Date:	Control Account Number: MMMA								
Project Task	Risk and/or Opportunity	Potential Impact	Internal Or External Driver	Impact Cost (Maximum Case)	Risk Impact Level	Risk Probability %	Risk Probability Level	Probable Cost (Likeliest Case)	Risk Critical Value	Risk Handling Strategy
WGS Program Management (MMMA1)	1 year schedule delay	Increased project costs	Internal	$2,000,000.00	3	50	3	$1,000,000.00	4	Accept. Reduce essential programmatic staffing
LLW Administration (MMMA2)	1 year schedule delay	Increased project costs	Internal	$500,000.00	2	10	2	$50,000.00	2	Accept. Reduce staffing or combine with MMMA1
			Total:	$2,500,000.00			Total:	$1,050,000.00		

WBS DICTIONARY
CONTROL ACCOUNT/CHARGE NUMBER

U.S. DEPARTMENT OF ENERGY
WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION

1. PROJECT TITLE	2. DATE OF CONTRACT	
FEMP (DEFENSE)	12/01/2000	
3. IDENTIFICATION NUMBER		4. INDEX LINE NO.
DE-AC24-01OH20115		80
5. WBS ELEMENT CODE	6. WBS ELEMENT TITLE	
1.1.M.B	WASTE MANAGMENT OPERATION SITE WIDE SUPPORT	
7. APPROVED CP NO.		8. DATE OF CHANGES
ORIGINAL SCOPE PER CP# FY01-0115-0011-00		12/01/2000
9. SYSTEM DESIGN DESCRIPTION	10. BUDGET AND REPORTING NUMBER	
CERCLA/ACA	EW05H3110	

11. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Materials
Subcontracts
ODC's

b. TECHNICAL CONTENT:

This element contains the programmatic management work scope, for field operation services provided to all FEMP projects and waste generators. This includes work scope for planning, administration, and management; waste acceptance/waste characterization and inventory management; shipping, traffic and container management activities; warehousing and surveillance technical oversight; and decontamination services of vehicles, tools and other equipment.

c. SCOPE OF WORK:

The Waste Management Operations Site Wide Support work scope is organized into four work packages (charge numbers): Waste Acceptance/Waste Characterization and Inventory Management, Shipping/Traffic/Container Management, Warehousing and Surveillance, and Decontamination Services.

Task 1, Waste Acceptance/Waste Characterization and Inventory Management (MMMB1) provides the technical, administrative, policy and program functions to the personnel performing waste acceptance, field verification, desktop characterization functions and waste inventory activities at the FEMP. This task also includes the technical and field support personnel tasked with support to the waste planning, generation, packaging, emplacement and disposition activities across the FEMP. This centralized function performs its tasks primarily at the point of generation of waste(s), secondary waste generation (primarily repackaging / regeneration) and verifications at the disposition locations (i.e. OSDF, WPRAP, SP-7, and Plant 1 pad).

U.S. DEPARTMENT OF ENERGY
WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION

1. PROJECT TITLE	2. DATE OF CONTRACT	
FEMP (DEFENSE)	12/01/2000	
3. IDENTIFICATION NUMBER		4. INDEX LINE NO.
DE-AC24-01OH20115		80
5. WBS ELEMENT CODE	6. WBS ELEMENT TITLE	
1.1.M.B	WASTE MANAGMENT OPERATION SITE WIDE SUPPORT	
7. APPROVED CP NO.		8. DATE OF CHANGES
ORIGINAL SCOPE PER CP# FY01-0115-0011-00		12/01/2000
9. SYSTEM DESIGN DESCRIPTION	10. BUDGET AND REPORTING NUMBER	
CERCLA/ACA	EW05H3110	

11. ELEMENT TASK DESCRIPTION

Task 2, Shipping/Traffic/Container Management (MMMB2) provides for the safe packaging and off-site shipment of non-hazardous and hazardous materials, substances and waste. This scope also includes the design, testing, procurement and distribution of containers, and the development and maintenance of the FEMP Shipping & Packaging Services Plan. This scope includes provision for representing the FEMP on various DOE transportation integration teams.

Task 3, Warehousing and Surveillance (MMMB3) provides for the safe, compliant warehousing and surveillance for Mixed, Hazardous, and Low Level Waste, including Nuclear Materials' stored at the Plant 1 Pad Facility and permitted storage areas (e.g., Bldg. 68 and Bldg. 79). This scope also includes conducting inspections, movement, and overpacking/repackaging for compliance with applicable regulations and DOE Orders.

Task 4, Decontamination Services (MMMB4) provides for the safe decontamination of scrapped site vehicles, tools and equipment in a manner that is compliant with Site RADCON and scrap disposition requirements.

WORK SCOPE DEFINITION
(Control Account)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 1

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.M.B	WASTE MANAGMENT OPERATION SITE WIDE SUPPORT

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	ROBERT GIROIR - EXT. 3761	JIM BUCKLEY - EXT. 3232

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3110	WASTE MANAGEMENT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/2000 - 09/2009

12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ONE LINE)
MMMB	WASTE MANAGEMENT OPERATIONS SITE WIDE SUPPORT

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Material
Subcontracts
ODCs

b. TECHNICAL CONTENT:

This control account contains the programmatic management work scope, for field operation services provided to all FEMP projects and waste generators. This includes work scope for planning, administration, and management; waste acceptance/waste characterization and inventory management; shipping, traffic and container management activities; warehousing and surveillance technical oversight; and decontamination services of vehicles, tools and other equipment.

c. SCOPE OF WORK:

The Waste Management Operations Site Wide Support work scope is organized into four work packages (charge numbers): Waste Acceptance/Waste Characterization and Inventory Management, Shipping/Traffic/Container Management, Warehousing and Surveillance, and Decontamination Services.

Waste Acceptance/Waste Characterization and Inventory Management (MMMB1) provides the technical, administrative, policy and program functions to the personnel performing waste acceptance, field verification, desktop characterization functions and waste inventory activities at the FEMP. This task also includes the technical and field support personnel tasked with support to the waste planning, generation, packaging, emplacement and disposition activities across the FEMP. This centralized function performs its tasks

Project Manager	Control Account Manager	Control Team Manager

WORK SCOPE DEFINITION
(Control Account)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 2

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.M.B	WASTE MANAGMENT OPERATION SITE WIDE SUPPORT

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	ROBERT GIROIR - EXT. 3761	JIM BUCKLEY - EXT. 3232

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3110	WASTE MANAGEMENT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/2000 - 09/2009

12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ONE LINE)
MMMB	WASTE MANAGEMENT OPERATIONS SITE WIDE SUPPORT

14. ELEMENT TASK DESCRIPTION

primarily at the point of generation of waste(s), secondary waste generation (primarily repackaging / regeneration) and verifications at the disposition locations (i.e. OSDF, WPRAP, SP-7, and Plant 1 pad).

Shipping/Traffic/Container Management (MMMB2) provides for the safe packaging and off-site shipment of non-hazardous and hazardous materials, substances and waste. This scope also includes the design, testing, procurement and distribution of containers, and the development and maintenance of the FEMP Shipping & Packaging Services Plan. This scope includes provision for representing the FEMP on various DOE transportation integration teams.

Warehousing and Surveillance (MMMB3) provides for the safe, compliant warehousing and surveillance for Mixed, Hazardous, and Low Level Waste, including Nuclear Materials' stored at the Plant 1 Pad Facility and permitted storage areas (e.g., Bldg. 68 and Bldg. 79). This scope also includes conducting inspections, movement, and overpacking/repackaging for compliance with applicable regulations and DOE Orders.

Decontamination Services (MMMB4) provides for the safe decontamination of scrapped site vehicles, tools and equipment in a manner that is compliant with Site RADCON and scrap disposition requirements.

d. WORK SPECIFICALLY EXCLUDED:

1) Assume that Information Management (IM), as necessary; will provide requested software changes to SWIFTS and WCRP under PBS-12.
2) Assume that IM will retain responsibility for development of new computer code, software quality assurance, and general software control in PBS-12.
3) Transfer of materials from the OMTA to the OSDF is the responsibility of PBS-03.
4) This account excludes those specific container movements requested and planned by projects.
5) Assume the maintenance and repair of all government owned facilities that are not classified as active operating plants/facilities are the responsibility of

WORK SCOPE DEFINITION
(Control Account)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 3

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.M.B	WASTE MANAGMENT OPERATION SITE WIDE SUPPORT

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	ROBERT GIROIR - EXT. 3761	JIM BUCKLEY - EXT. 3232

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3110	WASTE MANAGEMENT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/2000 - 09/2009

12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ONE LINE)
MMMB	WASTE MANAGEMENT OPERATIONS SITE WIDE SUPPORT

14. ELEMENT TASK DESCRIPTION

PBS-01.
6) Training costs will be centralized under cost account MMMA1 (WGS Program Management).
7) Maintenance of the mobile decontamination unit will be covered by PBS-01.
8) Size reduction of rolling stock to meet Waste Acceptance Criteria for the OSDF is covered under Cost Account MMMC (LLW Trash and Debris).
9) Pumping of sumps in TSS's will be covered under Cost Account MMMC3 (Warehousing and Surveillance).

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 1

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.M.B	WASTE MANAGMENT OPERATION SITE WIDE SUPPORT	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	T. WALSH/648-5275	JIM BUCKLEY - EXT. 3232
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3110	WASTE MANAGEMENT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00		12/2000 - 06/2009
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
MMMB1	WASTE ACCEPTANCE/WASTE CHARACTERIZATION & INVENTORY MANAGE	

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Material
Subcontracts
ODCs

b. TECHNICAL CONTENT:

This work package provides the technical, administrative, policy and program functions to the personnel performing waste acceptance, field verification, desktop characterization functions and waste inventory activities at the FEMP. This work package also includes the technical and field support personnel tasked with support to the waste planning, generation, packaging, emplacement and disposition activities across the FEMP. This centralized function performs its tasks primarily at the point of generation of waste(s), secondary waste generation (primarily repackaging / regeneration) and verifications at the disposition locations (i.e. OSDF, WPRAP, SP-7, and Plant 1 pad).

c. SCOPE OF WORK:

This work package includes the following sub-tasks:

Planning, including general administration, management approval, and administrative support to personnel performing waste acceptance, characterization field verification and inventory activities. This includes site wide integration of waste generation and disposition activities at the FEMP. Determine resource requirements and make assignments of personnel to projects. Implement training requirements to maintain a qualified technical staff. Provide guidance and approval for evaluations related to the radiological, chemical,

Project Manager	Control Account Manager	Control Team Manager

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 2

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.M.B	WASTE MANAGMENT OPERATION SITE WIDE SUPPORT	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	T. WALSH/648-5275	JIM BUCKLEY - EXT. 3232
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3110	WASTE MANAGEMENT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00		12/2000 - 06/2009
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
MMMB1	WASTE ACCEPTANCE/WASTE CHARACTERIZATION & INVENTORY MANAGE	

14. ELEMENT TASK DESCRIPTION

pyrophoricity, absorbency, and compatibility determinations associated with waste and nuclear materials treatment/storage and disposal. Stay abreast of waste acceptance criteria requirements and evaluation of waste streams to treatment/disposal options for cost effective disposition planning.

Characterization and waste acceptance including the evaluation of data, analytical results and process knowledge to document regulatory performance and other requirements bases for waste placement and disposition activities. Field verification of packaging and placement to defined performance requirements.

Monitoring, including the monitoring of performance indicators including characterized inventory, newly generated waste streams, profile and PWID submittals, corrective actions, and commitments are performed as part of the evaluation of the organization's performance on a monthly basis. Monitoring of the nuclear inventory is performed annually by the Field Inventory control function in conjunction with MC&A.

d. WORK SPECIFICALLY EXCLUDED:

1) Assume that Information Management (IM), as necessary; will provide requested software changes to SWIFTS and WCRP under PBS-12.
2) Assume that IM will retain responsibility for development of new computer code, software quality assurance, and general software control in PBS-12.
3) Transfer of materials from the OMTA to the OSDF is the responsibility of PBS-03.
4) This account excludes those specific container movements requested and planned by projects.
5) Assume the maintenance and repair of all government owned facilities that are not classified as active operating plants/facilities are the responsibility of PBS-01.
6) Training costs will be centralized under cost account MMMA1 (WGS Program Management).
7) Maintenance of the mobile decontamination unit will be covered by PBS-01.
8) Size reduction of rolling stock to meet Waste Acceptance Criteria for the

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 3

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.M.B	WASTE MANAGMENT OPERATION SITE WIDE SUPPORT

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	T. WALSH/648-5275	JIM BUCKLEY - EXT. 3232

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3110	WASTE MANAGEMENT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/2000 - 06/2009

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
MMMB1	WASTE ACCEPTANCE/WASTE CHARACTERIZATION & INVENTORY MANAGE

14. ELEMENT TASK DESCRIPTION

OSDF is covered under Cost Account MMMC (LLW Trash and Debris).
9) Pumping of sumps in TSS's will be covered under Cost Account MMMC3 (Warehousing and Surveillance).

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 1

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.M.B	WASTE MANAGMENT OPERATION SITE WIDE SUPPORT

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	SCOTT EDWARDS - EXT. 4583	JIM BUCKLEY - EXT. 3232

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3110	WASTE MANAGEMENT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/2000 - 09/2009

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
MMMB2	SHIPPING/TRAFFIC/CONTAINER MANAGEMENT

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Material
Subcontracts
ODCs

b. TECHNICAL CONTENT:

This work package provides for the safe packaging and off-site shipment of non-hazardous and hazardous materials, substances and waste. This scope also includes the design, testing, procurement and distribution of containers, and the development and maintenance of the FEMP Shipping & Packaging Services Plan. This scope includes provision for representing the FEMP on various DOE transportation integration teams.

c. SCOPE OF WORK:

This work package includes the following sub-tasks:

Shipping includes development, administration and maintenance of all aspects of the shipping program to ensure compliance with all drivers, including required training of personnel. It also covers providing FEMP Projects with clear guidance and direction on all aspects related to compliance with and applicability of transportation requirements for shipments, including review and implementation of any changes to those requirements.

Traffic Management includes obtaining qualified, least cost carriers for the transport of materials off site and ensuring all commercial equipment utilized for the transport of government owned materials complies with the applicable

Project Manager	Control Account Manager	Control Team Manager

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 2

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.M.B	WASTE MANAGMENT OPERATION SITE WIDE SUPPORT	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	SCOTT EDWARDS - EXT. 4583	JIM BUCKLEY - EXT. 3232
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3110	WASTE MANAGEMENT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00		12/2000 - 09/2009
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
MMMB2	SHIPPING/TRAFFIC/CONTAINER MANAGEMENT	

14. ELEMENT TASK DESCRIPTION

drivers listed. It includes auditing and approving all freight bills and input data into automated systems as required by the applicable drivers listed.

Container Management includes obtaining containers for all hazardous materials, substances and wastes that will be shipped off site. It also covers administration of the Container Distribution Facility, where the empty shipping containers are managed on site. It includes providing FEMP Projects with clear guidance and direction on all aspects related to compliance with and applicability of transportation requirements for containers, including review and implementation of any changes to those requirements and required training of personnel.

d. WORK SPECIFICALLY EXCLUDED:

1) Assume that Information Management (IM), as necessary; will provide requested software changes to SWIFTS and WCRP under PBS-12.
2) Assume that IM will retain responsibility for development of new computer code, software quality assurance, and general software control in PBS-12.
3) Transfer of materials from the OMTA to the OSDF is the responsibility of PBS-03.
4) This account excludes those specific container movements requested and planned by projects.
5) Assume the maintenance and repair of all government owned facilities that are not classified as active operating plants/facilities are the responsibility of PBS-01.
6) Training costs will be centralized under cost account MMMA1 (WGS Program Management).
7) Maintenance of the mobile decontamination unit will be covered by PBS-01.
8) Size reduction of rolling stock to meet Waste Acceptance Criteria for the OSDF is covered under Cost Account MMMC (LLW Trash and Debris).
9) Pumping of sumps in TSS's will be covered under Cost Account MMMC3 (Warehousing and Surveillance).

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 1

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.M.B	WASTE MANAGMENT OPERATION SITE WIDE SUPPORT

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	TED NAIL - EXT. 3737	JIM BUCKLEY - EXT. 3232

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3110	WASTE MANAGEMENT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/2000 - 09/2006

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
MMMB3	WAREHOUSING AND SURVEILLANCE

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Material
Subcontracts
ODCs

b. TECHNICAL CONTENT:

This work package provides for the safe, compliant warehousing and surveillance for Mixed, Hazardous, and Low Level Waste, including Nuclear Materials' stored at the Plant 1 Pad Facility and permitted storage areas (e.g., Bldg. 68 and Bldg. 79).). This scope also includes conducting inspections, movement, and overpacking/repackaging for compliance with applicable regulations and DOE Orders.

c. SCOPE OF WORK:

Planning, including general administration, procedure and task order review, procurement of supplies, daily safety meetings, inventory planning, oversight/inspections, and coordination of secondary waste/prohibited items, handling and processing.

Characterization, including field support, through movements, for field verifications, sampling & analysis.

Processing, including daily container and area inspections, container overpacking and/or repacking of leaking containers, implementing Characterization Change Notices (CCN), movement of containers in order to comply with regulatory, spacing, and compatibility requirements. Carry out project

Project Manager	Control Account Manager	Control Team Manager

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 2

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.M.B	WASTE MANAGMENT OPERATION SITE WIDE SUPPORT

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	TED NAIL - EXT. 3737	JIM BUCKLEY - EXT. 3232

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3110	WASTE MANAGEMENT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/2000 - 09/2006

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
MMMB3	WAREHOUSING AND SURVEILLANCE

14. ELEMENT TASK DESCRIPTION

requests for disposition, container labeling, container weighing, visual inspections, container venting/punching, sample disposition and housekeeping.

Packaging, including overpacking/repacking leaking containers to comply with regulatory requirements, and purchasing containers.

d. WORK SPECIFICALLY EXCLUDED:

1) Assume that Information Management (IM), as necessary; will provide requested software changes to SWIFTS and WCRP under PBS-12.
2) Assume that IM will retain responsibility for development of new computer code, software quality assurance, and general software control in PBS-12.
3) Transfer of materials from the OMTA to the OSDF is the responsibility of PBS-03.
4) This account excludes those specific container movements requested and planned by projects.
5) Assume the maintenance and repair of all government owned facilities that are not classified as active operating plants/facilities are the responsibility of PBS-01.
6) Training costs will be centralized under cost account MMMA1 (WGS Program Management).
7) Maintenance of the mobile decontamination unit will be covered by PBS-01.
8) Size reduction of rolling stock to meet Waste Acceptance Criteria for the OSDF is covered under Cost Account MMMC (LLW Trash and Debris).
9) Pumping of sumps in TSS's will be covered under Cost Account MMMC3 (Warehousing and Surveillance).

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 1

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.M.B	WASTE MANAGMENT OPERATION SITE WIDE SUPPORT	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	VAUGHN FURLONG - EXT. 5316	JIM BUCKLEY - EXT. 3232
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3110	WASTE MANAGEMENT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00		12/2000 - 09/2006
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
MMMB4	DECONTAMINATION SERVICES	

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Material
Subcontracts
ODCs

b. TECHNICAL CONTENT:

This work package provides for the safe decontamination of scrapped site vehicles, tools and equipment in a manner that is compliant with Site RADCON and scrap disposition requirements.

c. SCOPE OF WORK:

This work package includes the following sub-tasks:

Planning, including daily safety meeting, procedure and task order review, oversight/inspections, procurement of supplies, inventory planning, and coordination of secondary/prohibited items, handling and processing.

Processing, including removal of fluids and non-conforming materials (Rolling stock), pumping sumps, cleaning equipment, parts and other materials, performing decontamination activities including skids, vehicles, process equipment, etc.

Packaging, including packaging secondary wastes/prohibited items for respective disposition paths.

Project Manager	Control Account Manager	Control Team Manager

SECTION 2

1.0 NARRATIVE

1. PROJECT TITLE: WASTE MANAGEMENT	2. DATE: 09/10/01	3. PBS#: 11
4. WBS ELEMENT CODE: 1.1.M.B.	5. WBS ELEMENT TITLE: WM OPS SITEWIDE SUPPORT	
6. CAM NAME/ PHONE: JIM BUCKLEY/ 3232	7. CAM SIGNATURE:	
8. ORIGINAL/ CHANGE SCOPE/ PER CP#:	9.CONTROL ACCOUNT: MMMB	

SECTION 2: MMMB – WASTE MANAGEMENT OPERATIONS SITEWIDE SUPPORT

1.0 NARRATIVE

1.1 OVERVIEW

This Control Account contains the programmatic management work scope for field operation services provided to all FEMP projects and waste generators. This includes work scope for administration, management, technical oversight and field work for the following four Charge Numbers (Tasks):

- Waste Acceptance/Waste Characterization/Inventory Management (MMMB1)
- Shipping/Traffic/Container Management (MMMB2)
- Warehousing and Surveillance (MMMB3)
- Decontamination Services (MMMB4)

1.2 ASSUMPTIONS/EXCLUSIONS

1.2.1 Assumptions

1.2.1.1 MMMB1 – Waste Acceptance/Waste Characterization/Inventory Management

1) Projects in Planning Stage (e.g., design, traveler package, task order)

One (1) PWID and one (1) PWID revision, inclusive of supporting forms/paperwork, per Project.

2) Projects Generating OSDF-Bound Material

Maximum of 2 WAO staff within the Project boundaries: 1 FTE to rove active excavations and load-out piles and one (1) FTE to prepare manifests for trucks.

One (1) field location per project and one (1) manifest per conveyance (e.g., roll-off box).

3) Soil Excavations

The cubic yards of bulk soil identified below were calculated from the in-place volumes identified under item 2.11, utilizing a fluff factor of 15% and an optimum OSDF placement ratio of 80% (i.e., OSDF placement ratio for soil and debris of 80:20.

FY04 147K
FY05 157K
FY06 515K
FY07 437K
FY08 267K
FY09 92K

Wastes which cannot be bulk dispositioned to the OSDF or through WPRAP will require characterization and waste acceptance for containerized wastes, for off-site shipment.

4) Facilities D&D

The cubic yards of bulk debris identified below reflect numbers in the Soils/Debris Model – Scenario Six, 3-10-01.

FY02 55,904
FY03 18,622
FY04 15,593
FY05 29,901
FY06 24,491
FY07 6,149
FY08 630

Wastes which cannot be bulk dispositioned to the OSDF or through WPRAP will require characterization and waste acceptance for containerized wastes, for off-site shipment.

5) OSDF

Maximum of one (1) entrance point.

Maximum of 1½ WAO staff - 1 FTE to receive/review/record placement on incoming manifests at the rate of one (1) manifest per conveyance, and ½ FTE to perform periodic walk-downs of material dump/placement.

In-place CY per fiscal year:

FY04 160K
FY05 170K
FY06 560K
FY07 475K

FY08 290K
FY09 100K

6) Remote Stockpiles of OSDF- and WPRAP-bound material

~~Maintenance covered under an active contract for 10% or less of the total stockpiles.~~

~~Maximum of 1 WAO staff to receive/initiate manifests, with periodic walkdowns of the working face.~~

~~Only one (1) pile active per day.~~

R1-D-643

Routine Maintenance of Stockpiles (e.g., for regulatory compliance): If a project has an active building trades subcontract for the area in which a stockpile is located, then the project will utilize that mechanism to maintain the stockpile at their cost. This will account for 10% or less of site stockpiles. Maintenance of the balance of site stockpiles (i.e., 90% or more of the active stockpiles) is the responsibility of PBS11.

Material Transfers to and from Stockpiles: FTE estimates assume that a maximum of 1 WAO staff will be required at each stockpile that is receiving and/or loading out material. This staff member will be responsible for receipt/initiation of manifests/tracking logs and periodic walk-downs of the working face to inspect for prohibited material and size requirements.

Concurrent Activities at Multiple Stockpiles: FTE estimates assume that there will be only 1 stockpile on any given day that is receiving or loading out material.

7) Excavation and shipment of Waste Pit contents and similar material

Maximum of 1 WAO staff within WPRAP boundaries to perform periodic walk-downs of excavation and MHB, and oversee railcar load-out.

One (1) manifest per railcar, two (2) Profile revisions per waste stream per year, and ten (10) tracking logs per week.

8) Support Service Projects (e.g., WGS, AWWT, Maintenance)

Maximum of 4 FTE to address pre-existing and re-generated containers (i.e., Plant 1 Pad) until depletion of container inventories; reduced to 2 FTE thereafter.

Maximum of .25 FTE to support each project that is actively generating containerized waste.

Maximum of 12 sub-projects (e.g., Line and road repairs) per fiscal year.

Total of 270,000 CF of containerized waste bulked by October 31, 2002. There will be only one (1) active field location per day, five (5) tracking logs per week, six (6) RFDs per year, and twelve (12) database queries/reports per year.

Low Level cleanup waste is completed by 2006 according to Scenario 6. However, secondary waste generated by other site support services continues. Since the beginning of 2001, approximately 50 containers are generated on a weekly basis as newly generated wastes.

9) WPRAP

The number of unit trains and cars per train are an average based on past performance. The number of Tons reflects those identified in the current subcontract for the WPRAP.

18 unit trains per annum, 60 cars per unit train.
Total tonnage of 112,149 Tons +/- 10%.

To date, very little non-typical waste has been generated. However, once the Burn Pit and Pit 4 are excavated, more non-typical waste is expected to be generated.

10) Silos Projects

Silo 3 contents and other miscellaneous site wastes that require controlled blending (e.g., NMD, WGS) are processed and packaged for bulk disposition via WPRAP unit trains.

11) Soil/debris from site prep managed bulk for OSDF disposal.

LLW and MLLW inventory reductions are completed in 2004 and support for newly generated waste from D&D and Silos are required.

12) Waste Profile Criteria for Off-site Facilities

Waste profile criteria for Envirocare, NTS, TSCAI, M&EC, Waste Control Specialist(WCS), and other Broad Spectrum Treatment vendors remain the same.

13) Real-time Characterization

Real-time characterization of containerized waste will be fully implemented by the third quarter of FY02.

14) RCRA Operating Record and FEMP Administrative Record are combined in 2004.

15) The Waste Engineer category includes the Process Knowledge Review Team (Jacobs TP).

1.2.1.2 MMMB2 – Shipping/Traffic/Container Management

- The FEMP Project purchasing containers will be direct billed for the container costs.
- The FEMP Project requesting off-site shipments will be billed for transportation costs and quality control review of shipping documentation.
- Assume that training requirements and regulations do not change.
- R1-D-850 Existing GSA contracts will be used to the extent practical. ~~Sole source procurements will be used as much as practical.~~
- No materials beyond those listed in this baseline will require shipment off site.
- Requirements for transfer of materials to OMTA on site remain the same.
- Transfer of materials from the OMTA to the OSDF is the responsibility of PBS-03.
- R1-D-593 Containers will be purchased with the performance grade and quality level dictated by the risk posed by the container contents. All containers used for shipping will be procured so that all judgements of need from the White Metal Box Type B reports are satisfied and will comply with DOT and DOE requirements.
- This scope only includes the cost of quality reviews of shipping documents and containers.
- One Management Assessment of the entire Shipping/Traffic/Container Management program will occur each year.
- One Self-Assessment of the Shipping program will occur each year.
- One Self-Assessment of the Traffic Management program will occur each year.
- One Self-Assessment of the Container Management program will occur each year.
- PBS-07 will provide Traffic and Container Management for offsite shipment of Silos 1 and 2 materials. That activity will consist of 3000 shipments from May 2006 to August 2007. Programmatic support for shipping services will be provided from this task.
- PBS-07 will ship approximately 100 railcars of waste loaded with seven 22,000 to 24,000 lb sacks from March 2003 to April 2004
- R1-D-073 PBS-05 will ship approximately 1260 railcars per year in fiscal years 2001 through 2004 and ~~480~~ 432 railcars in fiscal year 2005.

- PBS-08, -10, and –11 will make approximately 400 shipments in fiscal year 2001.
- PBS-08, -10, and –11 will make approximately 200 shipments in fiscal year 2002.
- PBS-08, -10, and –11 will make approximately 100 shipments in fiscal year 2003.
- PBS-08, -10, and –11 will make approximately 260 shipments in fiscal year 2004.
- PBS-08, -10, and –11 will make approximately 150 shipments in fiscal year 2005.
- PBS-08, -10, and –11 will make approximately 110 shipments in fiscal year 2006.

R1-D-074

- After fiscal year 2006, slightly less than one FTE will be able to provide ~~all of~~ the Shipping/Traffic/Container Management support for offsite shipments, other than the PBS-07 shipments discussed ~~in item 14~~ above.

1.2.1.3 MMMB3 – Warehousing and Surveillance

- Warehousing and Surveillance is level of effort and will continue as described above until all waste is dispositioned under scenario 6, the end of FY-06.
- The Warehousing and Surveillance account will inspect containers and facilities that could result in corrective action by either overpacking/repackaging or building repairs conducted by the Maintenance Department.
- Warehousing and Surveillance will perform routine and required container movements to access other container movements requested by the dispositioning projects.
- Warehousing and Surveillance Mixed Waste project personnel will conduct daily container inspections based on a 7-day a week schedule for hazardous, Mixed and uncharacterized waste and will continue until all such waste is characterized. Once this is accomplished, weekly and annual RCRA HWMU inspections based on a 40-hour a week schedule will be conducted until final approval from OEPA that CERCLA clean-up actions have been completed. Weekly aisle spacing inspections on all Hazardous, Mixed and uncharacterized waste will also be performed. Warehousing and Surveillance project inspectors will conduct weekly container and aisle spacing inspections of LLW and NM based on a 40-hour a week schedule until all waste is removed from the storage facility. W&S will continue to perform inspections weekly, quarterly and annual LLW HWMU's based on a 40-hour a week schedule until final approval from OEPA that CERCLA clean-up actions have been completed.

- All newly generated waste containers will be delivered to appropriate storage in accordance with the Plant 1 Pad Waste Acceptance Criteria (WAC).

- Conduct container overpacking, labeling, and movements to ensure safe work environment and compliance with current applicable requirements. Estimated totals overpacked are 550 per year for legacy waste. The majority of legacy wastes will be removed in FY-01and FY-02, and staging of newly generated wastes will be the predominant inventory. Leaking containers will be reduced overall beginning FY-03 to 200 per year, FY-04 to 50 per year until FY-06.

- Conduct container tracking and inventory control.

- Management and supervision to maintain compliance with applicable regulations and DOE Orders, site safety policies and requirements to include Occupational Safety Engineering, Rad Engineering, Fire and Safety Engineering etc.

- Warehousing and Surveillance is responsible for any LLW and MW generated during project activities.
- Warehousing and Surveillance activities will be performed at the Plant 1 Pad that includes the Tension Support Structures (TSS), Bldg. 30A, and the Haz-Stor Lockers until the end of FY-07.

- Warehousing and Surveillance will implement CCNs as directed by Waste Characterization.

- Warehousing and Surveillance will write @200 Task Orders per year through FY-03, and revise procedures as needed for work direction.

- This charge account will fund support organizations i.e., Safety and Health, Radiological Safety and Fire Safety.

- This account will provide for the removal of rainwater accumulated in the sumps of TS-4, 5 and 6.

1.2.1.4 <u>MMMB4 - Decontamination Services</u>

- This charge number will include the costs for support personnel from Radiation Safety.

- Preparation of rolling stock (vehicles) for LLW Trash & Debris size reduction. Prep includes draining all fluids, glass and tire removal of 580 vehicles.

- Forty hour (4-10's) workweek.

- Necessary equipment is available to support operations.

- Assume that removing liquids from sumps at the FEMP not accessible by AWWT is covered under this work scope.

1.2.2 Exclusions

- Assume that Information Management (IM), as necessary, will provide requested software changes to SWIFTS and WCRP under PBS-12.
- Assume that IM will retain responsibility for development of new computer code, software quality assurance, and general software control in PBS-12.
- Transfer of materials from the OMTA to the OSDF is the responsibility of PBS-03.
- This account excludes those specific container movements requested and planned by projects.
- Assume the maintenance and repair of all government owned facilities that are not classified as active operating plants/facilities are the responsibility of PBS-01.
- Training costs will be centralized under cost account MMMA1 (WGS Program Management).
- Maintenance of the mobile decontamination unit will be covered by PBS-01.
- Size reduction of rolling stock to meet Waste Acceptance Criteria for the OSDF is covered under Cost Account MMMC (LLW Trash and Debris).
- Pumping of sumps in TSS's will be covered under Cost Account MMMC3 (Warehousing and Surveillance).

1.2.3 Government-Furnished Equipment/Services

- Nevada Test Site (NTS) Disposal Facility
- Envirocare Disposal based on DOE or Corps of Engineers contracts
- Disposal funds and funds transfer systems (e.g. interoffice work orders, etc)

1.2.4 General

- Work scope will remain in PBS 11 throughout the duration of the FEMP Remediation Project.

R1-D-600

R1-D-649

- Work scope will not change for the duration of the FEMP Remediation Project with the following exceptions:

R1-D-600

R1-D-649

- PBS 11 will pick up the PBS 10 scope associated with the maintenance and annual update of the Site Treatment Plan beginning in Dec. 2006.
- PBS 11 will assume responsibility for the management of the hazardous and solid waste contracts and programmatic support once turned over from PBS 10 at FY2006.

- Wastes that are containerized as of December 1, 2000 is the responsibility of the Waste Generator Services Project.
- Wastes generated after December 1, 2000 are the responsibility of the waste generator.
- Regulatory requirements remain unchanged during the performance period.
- Funding will support scope and schedule.
- Necessary equipment, i.e., vehicles, fork trucks, hoisting and rigging, etc., is available to support field operations.
- Adequate support from functional areas (e.g. Maintenance, Radiation Safety, Industrial Hygiene, Characterization and Quality Assurance) will continue to be provided in a manner that does not increase the scope of this program.
- It is assumed that current safety analysis will not change to impact this program, nor will any other project safety basis impact this scope of work.
- Field operations will be performed by FAT&LC represented personnel.

Exclusions

- Assume the maintenance and repair of all government owned equipment is budgeted for in PBS-01.
- Assume the maintenance and repair of all government owned facilities that are not classified as active operating plants/facilities are the responsibility of PBS-01.

1.3 DRIVERS

1.3.1 Administrative Drivers

- DOE Commitment - Document characterization of remediation waste on a manifest, to facilitate proper segregation, treatment, storage and disposal. CERCLA/DOE Order 5820.2A Roadmap for the On-Site Disposal Facility at the Fernald Environmental Management Project, September 1996

- DOE & EPA Commitment - Control impacted materials placed in interim staging areas (e.g., stockpiles, OMTA bins), including tracking, administrative controls, run-on/run-off controls and mitigation of airborne releases. Letter from J. Bradburne to J. Craig, C:OOTP:97-0482, "Material Tracking System," dated October 29, 1997; Sitewide Excavation Plan (2500-WP-0028, Rev 0, Final, July 1998)

- Envirocare requirements for incoming waste streams (e.g., Profile, Bounding Parameters, License limits). Envirocare Waste Acceptance Guidelines (Rev 2, September 30, 1999)

- Nevada Test Site (NTS) - Waste Certification Program will be maintained in accordance with the NTS WAC.

- Department of Transportation (DOT) requirements for off-site shipments (e.g., Bill of Lading, Manifest)

- EPA Commitment - Assess generator compliance with the PWID as wastes are generated. Waste Acceptance Criteria Attainment Plan for the On-Site Disposal Facility,20100-PL-0014, Rev. 0, Final, June 1998

- EPA Commitment - Obtain EPA approval prior to dispositioning Ancillary Wastes to the OSDF.

- Waste Acceptance Criteria Attainment Plan for the On-Site Disposal Facility, 20100-PL-0014, Rev. 0, Final, June 1998

- EPA Commitment - Review sampling plans for OSDF-bound material. Waste Acceptance Criteria Attainment Plan for the On-Site Disposal Facility,20100-PL-0014, Rev. 0, Final, June 1998

- EPA Commitment - Independent oversight of activities that generate impacted material for disposal in the OSDF. Waste Acceptance Criteria Attainment Plan for the On-Site Disposal Facility,20100-PL-0014, Rev. 0, Final, June 1998. Sitewide Excavation Plan (2500-WP-0028, Rev 0, Final, July 1998). Integrated Remedial Design/Remedial Action Work Plan (2503-WP-0023, Rev 0, Final, May 1997)

- EPA Commitment - Independent oversight for placement of impacted material in the OSDF. Waste Acceptance Criteria Attainment Plan for the On-Site Disposal Facility,20100-PL-0014, Rev. 0, Final, June 1998

- EPA Commitment - Prepare a manifest for each load of impacted material transported to the OSDF. Waste Acceptance Criteria Attainment Plan for the On-Site Disposal Facility,20100-PL-0014, Rev. 0, Final, June 1998. Impacted Materials Placement Plan for the On-Site Disposal Facility (20100-PL-007, Rev 2A, February 2000

- EPA Commitment - Maintain the WAC pedigree for impacted materials placed in interim staging areas (e.g., stockpiles, OMTA bins), including tracking and administrative controls. Waste Acceptance Criteria Attainment Plan for the On-Site Disposal Facility,20100-PL-0014, Rev. 0, Final, June 1998

- EPA Commitment - Ensure that AWAC materials are segregated and quarantined from BWAC materials. Waste Acceptance Criteria Attainment Plan for the On-Site Disposal Facility,20100-PL-0014, Rev. 0, Final, June 1998

- EPA Commitment - Record placement locations for impacted material disposed in the OSDF. Impacted Materials Placement Plan for the On-Site Disposal Facility (20100-PL-007, Rev 2A, February 2000

- EPA Commitment - Maintain cradle-to-grave records for wastes disposed in the OSDF. Waste Acceptance Criteria Attainment Plan for the On-Site Disposal Facility,20100-PL-0014, Rev. 0, Final, June 1998

- Programmatic - Maintain a Waste Acceptance Program for bulk wastes. Waste Acceptance Criteria Attainment Plan for the On-Site Disposal Facility,20100-PL-0014, Rev. 0, Final, June 1998

- Programmatic -RM-0053, Waste Characterization Information Manual.
- Programmatic -FEMP site procedures

- Programmatic -Waste requires evaluation for offsite disposition.

- Programmatic -Uncharacterized legacy inventory.

- Programmatic -NVO-325, NTS Waste Acceptance Criteria

- Programmatic -DOE Order 435.1

1.3.2 Physical Drivers

- Projects in planning stage (e.g., design, traveler package, task order).

- Project wastes include Ancillary, as defined in the OSDF WAC Plan.

- Generator conducts WAC-related sampling.

- Bulk waste generated and transported real-time to OSDF.

- Project generates AWAC wastes that can be managed bulk.

- Project generates AWAC wastes that require containerization.
- Impacted material placed in OSDF.
- Impacted material generated and transported to interim staging location.
- Stockpile(s) remain at end of Generating Project (i.e., orphan piles).
- Impacted material removed from interim staging and transported to OSDF.
- Impacted material removed from interim staging and transported to WPRAP.
- Waste Pit contents and similar wastes prepared for unit train shipment to Envirocare.
- Waste stream records (planning and field forms) turned into WAO Operating Record.

1.3.3 MMMB2 - Shipping/Traffic/Container Management

- Removal of legacy and current waste inventory.
- Mixed, Hazardous, and Low Level Waste generation activities across the site.
- Offsite waste shipments.
- Facility D&D generation of waste for both off and on-site disposition continues to require Waste Management Operations Site Wide Support.
- Waste Pits excavation on non-typical waste requiring treatment and disposition to Broad Spectrum Treatment vendor or NTS continues to require Waste Management Operations Site Wide Support.

1.3.4 MMMB3 - Warehousing and Surveillance

- Legacy waste inventory removal.
- Newly generated wastes from D&D, safe shutdown, laboratory, maintenance activities.
- Mixed, hazardous and LLW generation activities across the site.

1.3.5 MMMB4 - Decontamination Services

- EW-1016.

- Rolling stock preparation for disposition. _

- Rainfall determines the amount of time spent pumping rain water from sumps across the site.

1.3.6 General

- Contract DE-AC24-010H20115, "Fernald Closure Contract", issued 11/20/00

- Standard/Requirement Identification Document (S/RID), Section J, Attachment 2, Fernald Closure Contract

- 1998-2003 Agreement between Fluor Daniel Fernald and Atomic Trades and Labor Council (3/1/98 through 2/28/03). Successor agreements may dictate changes.

1.4 PROJECT PHYSICAL DESCRIPTION

This control account work package covers the scope of work required to perform (execute), manage, provide programmatic oversight, plan and administer the following four Charge Number Accounts (Tasks):

- Waste Acceptance/Waste Characterization/Inventory Management (MMMB1)
- Shipping/Traffic/Container Management (MMMB2)
- Warehousing and Surveillance (MMMB3)
- Decontamination Services (MMMB4)

1.4.1 Task #1 - MMMB1 – Waste Acceptance/Waste Characterization/Inventory Management

Provides the technical, administrative, policy and program functions to the personnel performing waste acceptance, field verification, desktop characterization functions and waste inventory activities at the FEMP. This task also includes the technical and field support personnel tasked with support to the waste planning, generation, packaging, emplacement and disposition activities across the FEMP. This centralized function performs its tasks primarily at the point of generation of waste(s), secondary waste generation (primarily repackaging/regeneration) and verifications at the disposition locations (i.e. OSDF, WPRAP, SP-7, and Plant 1 pad).

This task includes the following subtasks:

1) Planning

Planning, including general administration, management approval, and administrative support to personnel performing waste acceptance ,characterization field verification and inventory activities. This includes site wide integration of waste generation and disposition

activities at the FEMP. Determine resource requierments and make assignments of personnel to projects. Implement training requirements to mainatain a qualified technical staff. Provide guidance and approval for evaluations related to the radiological, chemical, pyrophoricity, absorbency, and compatibility determinations associated with waste and nuclear materials treatment/storage and disposal. Stay abreast of waste acceptance criteria requirements and evaluation of waste streams to treatment/disposal options for cost effective disposition planning.

2) Characterization

Characterization and waste acceptance including the evaluation of data, analytical results and process knowledge to document regulatory,performance, and other requirements basis for waste placement and disposition activities. Field verification of packaging and placement to defined performance requirements.

3) Monitoring

Monitoring, including the monitoring of performance indicators including characterized inventory, newly generated waste streams, profile and PWID submittals, corrective actions, and commitments are performed as part of the evaluation of the performance of the organization on a monthly basis. Monitoring of the nuclear inventory is performed annually by the Field Inventory control function in conjunction with MC&A.

1.4.2 Task #2 - MMMB2 – Shipping/Traffic/Container Management

Provides for the safe packaging and off-site shipment of non-hazardous and hazardous materials, substances and waste. This scope also includes the design, testing, procurement and distribution of containers, and the development and maintenance of the FEMP Shipping & Packaging Services Plan. This scope includes provision of prompt responses to customer requests, representing the FEMP on various DOE transportation integration teams, and supporting the Functional Area Manager for Packaging and Transportation with document reviews.

This task includes the following subtasks:

1) Shipping

Shipping includes development, administration and maintenance of all aspects of the shipping program to ensure compliance with all drivers, including required training of personnel. It also covers providing FEMP Projects with clear guidance and direction on all aspects related to compliance with and applicability of transportation requirements for shipments, including review and implementation of any changes to those requirements.

2) Traffic Management

Traffic Management includes obtaining qualified, least cost carriers for the transport of materials off site and ensuring all commercial equipment utilized for the transport of government owned materials complies with the applicable drivers listed. It includes auditing and approving all freight bills and input data into automated systems as required by the applicable drivers listed.

3) Container Management

Container Management includes obtaining containers for all hazardous materials, substances and wastes that will be shipped off site. It also covers administration of the Container Distribution Facility, where the empty shipping containers are managed on site. It includes providing FEMP Projects with clear guidance and direction on all aspects related to compliance with and applicability of transportation requirements for containers, including review and implementation of any changes to those requirements and required training of personnel.

1.4.3 Task #3 - MMMB3 – Warehousing and Surveillance

Provides for the safe, compliant warehousing and surveillance for Mixed, Hazardous, and Low Level Waste, including Nuclear Materials' stored at the Plant 1 Pad Facility and permitted storage areas (e.g., Bldg. 68 and Bldg. 79).

This task includes the following subtasks:

1) Planning

Planning, including general administration, procedure and task order review, procurement of supplies, daily safety meetings, inventory planning, oversight/inspections, and coordination of secondary waste/prohibited items, handling and processing.

2) Characterization

Characterization, including field support, through movements, for field verifications, sampling and analysis.

3) Processing

Processing, including daily container and area inspections, container overpacking and/or repacking of leaking containers, implementing Characterization Change Notices (CCN), movement of containers in order to comply with regulatory, spacing, and compatibility requirements. Carry out project requests for disposition, container labeling, container weighing, visual inspections, container venting/punching, sample disposition and housekeeping.

4) Packaging

Packaging, including overpacking/repacking leaking containers to comply with regulatory requirements, and purchasing containers.

5) Shipping

None

1.4.4 Task #4 - MMMB4 – Decontamination Services

Provides for the safe decontamination of scrapped site vehicles, tools and equipment in a manner that is compliant with Site RADCON and scrap disposition requirements.

This task includes the following subtasks:

1) Planning

Planning, including daily safety meeting, procedure and task order review, oversight/inspections, procurement of supplies, inventory planning, and coordination of secondary/prohibited items, handling and processing.

2) Characterization

None

3) Processing

Processing, including removal of fluids and non-conforming materials (Rolling stock), pumping sumps, cleaning equipment, parts and other materials, performing decontamination activities including skids, vehicles, process equipment, etc.

4) Packing

Packaging, including packaging secondary wastes/prohibited items for respective disposition paths.

5) Shipping

None

1.5 PROJECT PLAN/TECHNICAL SCOPE AND QUANTIFICATION

1.5.1 MMMB1 – Waste Acceptance/Waste Characterization/Inventory Management

Planned tasks included in this work scope include:

R1-F11-008

1) Project/Generator Support ~~(4 FTE)~~

- Project planning support, including but not limited to the following tasks:

  - Identify potential Project waste streams, based on input from generating Projects (e.g., designs, drawings, task orders) and associate with source material tracking location (MTL).

  - Estimate waste stream volumes based on input from generating Projects (e.g., designs, drawings, task orders), including both primary and secondary wastestreams.

  - Evaluate chemical, radiological and physical characteristics of waste streams, using analytical data from MEFs, RI/FS, predesigns and other sources, and assign to appropriate Profile and/or MEF.

  - Determine waste container requirements (with concurrence from Shipping/ Traffic/Container Management guidance where off-site shipment is involved).

  - Identify appropriate waste dispositions.

  - Document the above information in Project Waste Identification and Disposition Reports (PWIDs) and associated documents (e.g., MTL definition forms, MSCC).

- Prepare RFD packages for non-conventional waste streams (e.g., container-to-bulk, Category 5) and facilitate the approval process.

- Review sampling plans as relevant to waste acceptance criteria, and coordinate preparation of Data Group forms with the Project.

- Provide inspection of waste material as it is generated (e.g., container bulking, D&D, excavation, site maintenance/utilities) and loaded out, containerized, or returned to source, for real-time characterization and waste acceptance, and in support of waste certification for Nevada Test Site (NTS) and other off-site shipments.

- Document waste stream characterization, waste acceptance criteria and packaging requirements by completing field tracking logs (including field verification form or equivalent for NTS shipments) for waste material that is transferred from the source to either an interim (e.g., stockpile, Plant 1 Pad) or final (e.g., railcar, container or OSDF) location. This task includes newly generated wastes and re-generation of stockpiled or containerized material.

- Prepare manifests for waste streams that will be bulk dispositioned.
- Provide inventory reviews, tracking, reporting and coordination for on-site transfers of waste that will be bulk dispositioned.
- Prepare PWID Update reports for primary, secondary (e.g., PPE, oil spills) and unanticipated waste streams.

R1-F11-008

2) Stockpile Management ~~(2-3 FTE)~~

- Receive/review field tracking logs for impacted material entering stockpiles, and inspect the material for compliance with the relevant WAC.
- Control access to impacted material stockpiles through administrative controls (e.g., signs, construction fencing or rope) and/or engineered controls (i.e., chain link fencing).
- Maintain impacted material stockpiles for compliance with environmental (e.g., grading, cover) and access control (e.g., signs, fencing) requirements, unless covered under an active contract.
- Consolidate small volume stockpiles to centralized locations, as practicable.
- Assist projects with selection and approval of locations for new impacted material stockpiles.
- Conduct weekly inspections of impacted material stockpiles for compliance with administrative and engineered access controls, and conditions adverse to protection of the environment.
- Prepare routine drawings and reports for FEMP users, DOE and regulatory agencies for site stockpiles.

R1-F11-008

3) WPRAP and Other Projects Shipping Bulk Wastes to Envirocare ~~(2.5 FTE)~~

- Provide periodic inspection of material prior to load-out.
- Provide inspection of prepped material as it is loaded into railcars.
- Provide technical support for dispositioning prohibited items (i.e., by Envirocare's WAC).
- Provide technical support for dispositioning secondary wastes generated as a result of operations.

- Compile inputs from Project functional areas (e.g., bin ID's, rad survey results) on tracking logs, to ensure availability of information at the railcar level, for various applied uses (e.g., DOT BOL, E-Care Profile updates).

- Review analytical data for compliance with Bounding Parameters and the E-Care Profile, and coordinate any required updates with E-Care.

- Maintain and update, as necessary, the E-Care Profile.

- Prepare off-site manifests for unit train railcars.

- Provide other shipping support, as needed (e.g., DOT exemption).

- Review final unit train documentation to ensure that all required components have been prepared, and issue Certification Statement.

R1-F11-008

4) Off-site Shipment Support for Conventional Containers ~~(2FTE)~~

- Assist Projects with preparing and updating Profiles.

- Assist Projects with coordination of technical issues with receiving facilities.

- Assist DOE with contractual issues relevant to disposition of wastes to off-site facilities.

R1-F11-008

5) OSDF Material Staging and Placement ~~(2-4 FTE)~~

- Receive/review tracking logs for loads of impacted material entering the OMTA Bulk Staging Area, and inspect for compliance with the OSDF WAC.

- Manifest loads of impacted material from the OMTA Bulk Staging Area to the OSDF for placement.

- Facilitate resolution of WAC issues that may arise in the OMTA Container and Bulk Staging Areas.

- Receive/review manifests for loads of impacted material entering the OSDF for placement, inspect the material for compliance with the OSDF WAC, and record the placement location.

- Document rejection of any non-WAC compliant, impacted material that is returned to the generating Projects.

- Provide the OSDF with technical support for dispositioning secondary wastes generated as a result of operations (e.g., wheel wash clean-out, oil spills, PPE).

R1-F11-008

6) Program Management and Administration ~~(3.5 FTE)~~

- Maintenance of an integrated program that facilitates waste planning, waste characterization, waste acceptance, packaging oversight, NTS waste certification, transfers of wastes for bulk disposition.

- Maintenance of a program that facilitates characterization of containerized waste inventories that cannot be completed real-time.

- Maintenance of an Operating Record (paper and electronic) that associates containerized and bulk waste with associated PWIDs (and supporting forms), analytical data, and final disposition.

- Preparation of inventory reports for FEMP users, DOE and regulatory agencies.

- Maintenance of Waste Characterization and WAC-related procedures and plans.

- Administrative functions (e.g., budget, schedule, training).

R1-F11-008

7) Supplementary Program for Characterization of Containerized Inventories ~~(10 FTE - see details below)~~

- Application of the approach described in the following paragraphs is limited to a) existing containerized inventories for which characterization and certification activities have been completed, b) interim use through the second quarter of FY02, pending full implementation of the integrated approach described under Project/Generator Support and c) long term use for problematical waste streams that cannot be characterized as an integral part of field activities.

- Containerized inventory requiring characterization will be campaigned for treatment/disposition. Technical review and approval of the associated documentation is included in this account. For each campaign shipped to NTS, a radiological, chemical, pyrophoricity, absorbency, and compatibility determination (if wastes are commingled) is reviewed and signed by a manager. For each shipment to TSCA, a radiological, chemical, pyrophoricity, and compatibility determination is reviewed and signed by a manager. Similarly, for stockpiling containerized waste to SP-7, a chemical, pyrophoricity, and compatibility determination is reviewed and signed by a manager. Each campaign is reviewed and signed by the manager of Waste Characterization.

- The Manager of the Field Verification Group examines RTR, NDA, Visuals, NTS Checklists and MMRs as appropriate to characterize inventory. In addition, the manager is responsible for coordinating field personnel to photograph waste inventories and electronically catalog into SWIFTS for characterization

documentation. If sampling and analyses are required by characterization, the manager is also responsible for reviewing the sampling plan. These tasks in combination with the aforementioned reviews and NTS waste profile reviews encompass 1 FTE as WSTMGR. Based on the Low Level Waste estimates for trash, debris and yard scrap for compactable dumpster trash (about 48,000 ft3) going to NTS, this represents about 42 ISOs (internal volume of 1134 ft3) between FY-01 through FY-03. After FY03, all of this dumpster trash will go to the OSDF. Additionally, 88 ISO shipments of debris/non-compactable is scheduled for shipment to NTS under the Low Level Waste estimate. Prohibited items generated by trash sorting operations (small volumes) will be handled under other disposition pathways (e.g., Evirocare, WPRAP, etc.) This manager will also support the effort to review RTR and photographs of the additional 220 WMB and 158-drum inventory on the Plant 1 Pad noted in March 2001.

- The Manager of Chemical Characterization is responsible for coordinating the efforts of environmental waste engineers responsible for performing hazardous waste determinations. These determinations include the paperwork documentation required by the Ohio Administrative Code (OAC). Additionally, this manager is also responsible for ensuring the RCRA Operating Record is current in accordance with the OAC, characterization notices are issued weekly, signing inventory recode requests, and completing the Waste Characterization's weekly report. Presently, between 30 – 50 containers of waste are being generated on a weekly basis with a backlog inventory of 1200 containers. The majority of the 30000 containers on-site are tied or will be tied to an MEF. These tasks in conjunction with the technical reviews described above encompass 2 FTEs. The managerial/technical review tasks account for 1 FTE as WSTMGR while a clerical person handles the documentation and the RCRA Operating Record. (approximately 5000 Material Evaluation Forms). The clerical person is also responsible for generating WC's performance indicators as is identified as 1 FTE CLERK on the manpower plan.

- The Manager of Radiological Characterization/SWIFTS coordinates the efforts of environmental waste engineers responsible for performing radiological characterizations and pyrophoricity evaluations. This manager also provides the review of the checklists provided to Shipping Services for DOT purposes and any radiological data used for NTS profiles, WPRAP railcar shipments (through a person matrixed to WAO from WC). This role requires approximately 0.5 FTE as a WSTENG. Additionally, this manager also fulfills the gatekeeper role of SWIFTS by examining proposed changes to the system to ensure integration among users will continue with the change. This role requires a 0.5 FTE as a WSTENG. A support person for the SWIFTS segment of data management, enhancements, and eDesk management used by the Manager of Radiological Characterization/SWIFTS requires 1.0 FTE as a TRSREP.

- The Manager of Field Inventory Control coordinates field inventory control activities and integration with the MC&A organization on both waste and nuclear materials

numbering approximately 30000 containers. This manager also reviews and signs work plans on what paperwork is required, when the paperwork is to be completed, and any guidance as to how the material is packaged and weighed for the purposes of SWIFTS transactions. In addition, this person signs as the "Data Owner Signature Approval" when someone requests access to SWIFTS Material Balance Accounts. This position is also authorized to sign Shipping Orders and requires 1 FTE as MPCMGR.

- The Manager of Waste Characterization coordinates the efforts of the above mentioned groups and performs the administrative/technical functions of CAM, EW Functional Area Subject Expert, Emergency Duty Officer, member of the Independent Safety Review Committee (ISRC), NTS Technical Contact on Waste Profiles, H&S Support role and Environmental Advisor in the Emergency Operations Center (EOC). In addition, this position reviews and approves characterization campaigns for treatment/storage/disposal, absorbency determinations, and chemical compatibility determinations. This position is 1 FTE as PJCMGR.

- Administrative/technical support for the Manager of Waste Characterization includes ~~an integrator and~~ an administrative assistant. ~~The integrator acts as a liaison with the project groups inside and outside the WC organization. This person receives campaign requests for characterization support on any inventory destined to NTS, SP-7, TSCA, AWWT, etc. and ensures resources/schedules are consistent with the requests.~~ This role ~~also~~ is responsible for tracking backlogged waste inventories, newly generated wastes, and container requests (helps to plan which inventory WC will be seeing in the future). ~~The integrator also ensures paperwork associated with commitments, assessments, audits, etc. are completed on schedule. Finally, the integrator serves as a technical reviewer on hazardous waste determinations discussed earlier in this section. This position requires 1.0 FTE identified as TPSREP.~~

R1-F11-008

- The administrative assistant tracks all incoming waste verifications (outside of campaign packages), sorts and compiles spreadsheets on backlogged and newly generated waste inventories, acts as a liaison with other divisional administrative support personnel, polls SWIFTS for inventory information and performs standard clerical duties for WC group. This position requires 1.0 FTE as CLERK.

- Additional support to the Manager of WC includes the Process Knowledge review team. This group consists of 5 part-time Teaming Partners who review project documents, photographs, inventory campaigns, and other items on an as requested basis. This position is equivalent to 1.5 FTE as WSTENG.

- The rest of the WC group includes team members who charge the administrative account on issues involving administrative meetings (all-hands, safety, training, required reading, etc.) and audits/assessments. This accounts for 1.5 FTEs identified as WSTENG.

1.5.2 MMMB2 – Shipping/Traffic/Container Management

R1-F11-008

This task includes the following subtasks

1) Shipping Compliance ~~(2 FTE)~~

- Interpret, research, and implement applicable Federal, state, local and tribal regulations.
- Maintain all documentation and records generated during transportation-related activities.
- Purchase copies of updated regulatory documents.
- Maintain, inventory, and purchase labels, placards, etc., which are required to transport hazardous materials, substances or wastes.
- Develop and maintain procedures, documents, and forms to ensure all off-site shipments comply with the drivers listed above.
- Quality Control review of the shipping program and any periodic reviews of shipping paperwork (not reviews associated with a single shipment, which will be direct billed to the project making the shipment).
- Review Safety Analysis Reports to ensure compliance for Packaging when used by the FEMP.

R1-F11-008

2) Project Guidance and Direction

- Review work instructions, task orders, and procedures that involve packaging materials for off-site shipment to ensure transportation requirements are incorporated.
- Participate in planning activities to ensure that container and shipping requirements are considered early in the process.
- Review and submit comments on site-wide technical documents related to the shipment of hazardous material, substances and wastes.
- Review Material Safety Data Sheets and provide guidance regarding regulatory determinations.
- Develop shipping and container-related Quality Evaluation Plans.

R1-F11-008

3) Regulatory Reviews

- Conduct Federal Register and DOE Order reviews.
- Ensure the FEMP program that implements DOE Order 435.1 includes all shipping and container-related requirements as developed in the contract S/RIDs.

R1-F11-008

4) Training

- As required by regulation, obtain initial and recurrent training.
- Train and maintain qualified personnel in emergency response and preparedness for transportation of hazardous material, substances and wastes.

R1-F11-008

5) Reporting, Verification and Integration

- Provide a quarterly report to FEMP DOE regarding compliance of routing requirements for motor carriers transporting shipments to the Nevada Test Site.
- Respond and participate in all audits and compliance assessments. TCEAP will occur once every three years. DOE Inspector General audits will occur once per year. Department of Transportation audits will occur once every four years. Public Utility Commission of Ohio audits will occur quarterly.
- On an average of once per month up to fiscal year 2006, provide information to DOE National Transportation Program or other DOE organizations that will be used to increase the cost-effectiveness of logistics, shipping and container operations.
- Participate in one DOE ATMS User's Group meeting each year up to fiscal year 2006.
- Serve as a participant on the ATMS Steering Committee up to fiscal year 2006, including attending one meeting per year.
- Participate in one DOE Contractors Transportation Management Association meeting each year through fiscal year 2006.
- Serve as a participant on the DOE Packaging Management Council and attend their meetings twice each year through fiscal year 2006.
- Attend one DOE-sponsored Packaging and Transportation Symposium each year through fiscal year 2006.
- Attend one Cooperative Hazardous Materials Development Program/Association of Waste Hazardous Material Transporters meeting each year through fiscal year 2006.

R1-F11-008

6) Functional Area Manager (FAM) Support

- Review FEMP documents that implement any standards or requirements listed in the Standard/Requirement Identification Document (Section J, Attachment 2 to Contract DE-AC24-01OH20115, Fernald Closure Contract).

- Evaluate and perform cost impact analysis for deletion or addition to the existing S/RIDs in the area of Packaging and Transportation in support to the FAM.

R1-F11-008

1.5.2.1 Packaging, including the following sub-sub-tasks:

1) Container Management

- Manage all aspects of the container procurement process for the containers required to package the materials for the shipments listed in the assumptions above.

- Develop and lead container-testing programs to ensure all requirements are implemented.

- Resolve any container-related issues that arise throughout the lifecycle such as closure issues, long-term material incompatibilities, lessons learned, etc.
- Identify opportunities for container enhancements, make recommendations on better uses of and for the containers and study the feasibility of alternate container uses.

- Prepare documentation for containers required by and attend meetings of the Technical Review Board and the Independent Safety Review Committee when required.

R1-D-659

- ~~Manage the development and application of M-110 Container.~~

- Provide support to Container Vendors, when appropriate, to ensure prompt container delivery.

- When necessary, support development of alternate container suppliers.

- Quality control activities related to selection and use of container vendors such as source inspections.

R1-F11-008

3) Container Distribution

- Coordinate resources to receive containers on site and to deliver containers to end users in the field.

R1-F11-008

- Obtain forecasts for container use from FEMP Projects.
- Manage the inventory of containers on site to minimize warehousing costs while ensuring containers are available to support FEMP needs.
- Coordinate container requests from FEMP Projects.
- Track containers on site within SWIFTS from their arrival to their issuance to the FEMP Projects.
- Quality control receipt inspection of containers upon arrival on site.

1.5.2.2 Shipping, including the following sub-sub-tasks:

1) Shipping Compliance

- Evaluate, generate necessary documentation and approve shipments documented on Miscellaneous Shipping Orders.

2) Traffic Management

- When applicable, utilize the Automated Transportation Management System (ATMS) Rate/Route module.
- Ensure carriers satisfy DOE requirements, including, but not limited to, those for safety evaluations and insurance.
- Provide guidance to applicable FEMP Projects regarding DOE Carrier Quotes and Rate Tenders.
- Assist in the development and train Procurement/Acquisitions personnel on the usage of ATMS Rate/Route module to ensure the least cost carriers are obtained.
- Coordinate, obtain pricing and utilize the least cost carrier for inbound hazardous materials, substances and wastes shipments.
- Schedule and oversee any required repairs to commercial equipment used for off-site shipments to ensure compliance with the applicable drivers.
- When required, develop Load Securement Plans.
- Coordinate Household Goods Moves.

R1-F11-008

3) Shipment Traceability

- Audit freight bills and approve them after ensuring charges are correct.
- Once a month, submit copies of freight bills to the General Services Administration (GSA) for audit.
- Administer, maintain and utilize the Automated Transportation Management System (ATMS) mandated by DOE.
- Utilize the Shipment Mobility/Accountability Collection (SMAC) system, or its successor database, to provide centralized collection, analysis and reporting of transportation data for shipments made by and on behalf of DOE.
- Research and resolve overages, shortages and damages (OS&D) claims.

1.5.3 MMMB3 – Warehousing and Surveillance

Planned tasks included in this work scope include:

- Warehousing and Surveillance will conduct inspections for compliance with the regulations and DOE Orders. Inspections are conducted on all containers, HWMUs, Bulk Debris Piles, and Storage Facilities based on a 7-day week inspection. This work scope also provides for the purchase of equipment to support the inspection process.
- Once a deteriorated container is identified Warehousing and Surveillance will mitigate, with absorbents, with an immediate response to the spill until the final corrective action of overpacking/repackaging or delivering to the project for final disposition. Overpacking/repackaging process is accomplished in an approved location for that operation. Once overpacked/repacked the container is labeled, weigh and moved back to storage to ensure a safe and compliant work environment with applicable requirements. Estimated total of containers overpacked/repackaged are 550 per year. Any waste generated i.e., PPE or absorbent material is placed into the overpacked/repacked container that required the use of that material. This work scope includes the purchase of containers and other equipment to support the overpacking/repackaging and inspection process.
- Warehousing and Surveillance updates inventory through the completion of MMRs and conduct physical inventories to ensure that SWIFTS is updated.
- Warehousing and Surveillance tracks hydrogen monitoring of hydride forming metals for compliance with SA 96-1016 and if required install vents in containers

that could produce Flammable Gases. Puncturing and Decanting are activities to ensure compliance with that SA.

- This work scope covers the technical support, Occupational Safety Engineering, Rad Engineering, Fire and Safety Engineering etc to support operation activities.

- Warehousing and Surveillance will use the Plant 1 Pad complex that includes the TSSs, Bldg. 30A, and the Haz-Stor Lockers until the end of FY-07 Based on Scenario 6.

- Warehousing and Surveillance will implement Characterization Change Notices when released through Waste Characterization Data. The work is commensurate with the changes to the characterization. This could be a label change or movement to proper storage or both.

- Warehousing and Surveillance will write or revise procedures and Task Orders to direct work. Conduct Management Assessment, self-assessment and QEP as required. Management and implement SBD as required.

Quantification

Quantification information provided for Warehousing and Surveillance activities are based on continued operations support and troubleshooting interface for this procedure based operation through FY-07. Continual support of procedure revision and task order writing are a LOE at a rate of 250 task orders per year, declining in FY-03. Record keeping for the Inspection program and the Hydrogen Generating data are a continual daily function to support the operations it will decline after FY-03 and continues through FY-07. Training requirements for Project Personnel to continue to support operational functions. Warehousing Operations require Project Personnel to support daily operations with a continued planning effort through FY-07. Oversight is required to support the reporting of this cost account on a weekly basis. Project Personnel will purchase the equipment needed to perform operational activities to support this work scope. They will also initiate any request for the maintenance of the facilities and equipment to support this work scope.

1.5.4 MMMB4 – Decontamination Services

This task includes the following sub-tasks:

1.5.4.1 Cleaning

Washing and performing decontamination activities, including skids, rolling stock, process equipment, etc., is level of effort and will continue through the life of the project. Since this washing and decontamination if a LOE, it is difficult to quantify.

1.5.4.2 Preparing Rolling Stock

Rolling stock consists of 580 individual pieces. This scope will prepare the rolling stock for size reduction by LLW Trash & Debris, at a central location. The preparation involves the removal of glass and all prohibited/non-conforming items prior to size reduction.

Rolling Stock Inventory Summary

Category	Quantity
Vehicles	131
Heavy Equipment	23
Fork Trucks	67
Stackers	15
Trailers	38
Miscellaneous Attachments	306
Total	**580**

Prohibited/non-conforming items (including batteries, tires, cylinders, oils, and other fluids) to be removed during the preparation of this wastes for size reduction for disposal in the OSDF, will be encountered at a rate of 2% of the total stream volume (~ 3800 cubic feet). Oils, to be managed to TSCA-type incineration will account for less than 5% of the non-conforming items (~ 175 cubic feet). Broken batteries to be processed through offsite macro-encapsulation treatment will account for less than 1% of the non-conforming items (~25 cubic feet). Tires that cannot readily be decontaminated for release will account for 16& of the non-conforming items and will be sized by LLW Trash & Debris and shipped to NTS. The remaining 79% of the non-conforming items (including releasable tires, sealed batteries, 50% of oils and all vehicle antifreeze fluids) will be transferred to existing recycling programmatic scopes. Glass will be removed from 221 vehicles, but will be placed in ROB's for OSDF disposal. Each of the non-conforming waste streams will be separately containerized to facilitate transfer to receiving programs or to support disposal shipping.

Breakout of Rolling Stock Non-conforming Items by Percent

Recyclables (Tires, Oils, Batteries, Fluids)	Tires	Oils	Pb
79%	16%	<5%	<1%

1.5.4.3 Pumping Sumps at the FEMP

There are 46 sumps at the FEMP that are checked, and pumped as required, after every rainfall at the FEMP. The average rainfall from 1993-2000 at the FEMP = 43.58 inches/year.

Sumps

Location	Description	Size
Plant 2/3	Nitric Acid	25'x25'x2'
#1	Dirty TPB	30'x40x2.5'
#2	Cont. Digest	30'x60'x2.5'
#3	Roadside Sump	4'x4'x10'
#4	Metal Dis.	30'x40'x50'
#5	Oil Rec.	15/x25/x1'
#6	Nitric Acid	30'x72'x3'
#7	OK Liquir	60'x60'x3'
#8	-	3'x3'x3'
#9-14	Kerosene	20'x20'x4.5'
#15		
Miscellaneous		
#16	Railroad	25'x100'x4'
#17	Tank Farm	75'x75'x4'
#18	Thorium	Road flooding varies
#19	Gas Boy (RIMIA)	30'x30'x1.5'
#20	NEF Tank Area	25'x75'x2'
#21	Plant 1 Pad	25'x25'x15'
#22	South Bldg. 12	Road flooding varies
Pilot Plant		
#23	SW Pilot Plant	30'x30'x4'
#24	HF Tank	15'x30'x2'
Plant 8		
#25	MW Corner Plt.8	40'x40'x2'
#26	Terra Clean	20'x60'x2'
#27	Front Plant 8	Road Flooding varies
#28	Rotary Kiln South	8'x8'x5'
#29	Caustic Pit	40'x40'x4'
#30	STR Sump	4'x4'x4'
#31	Elevator	25/x25/x10'
#32	Purged Water	20'x20'x3'
#33	Old Boiler Plant	100'x100'x20' 40'x40'x40'
Plant 6		
#34	Water Tank Rem.	60' Dia. X 2'
#35	Auto Sys.	2500 gal.
#36	Scrap Pick	30'x30'x20'
#37	Oil Pump Pit	25'x25'x25'
#38	Chipper Conveyor	10'x150'x8'
#39	3 Pits East Side	20'x20'x15' each
#40-42	Rolling Mill	30'x30'x20'

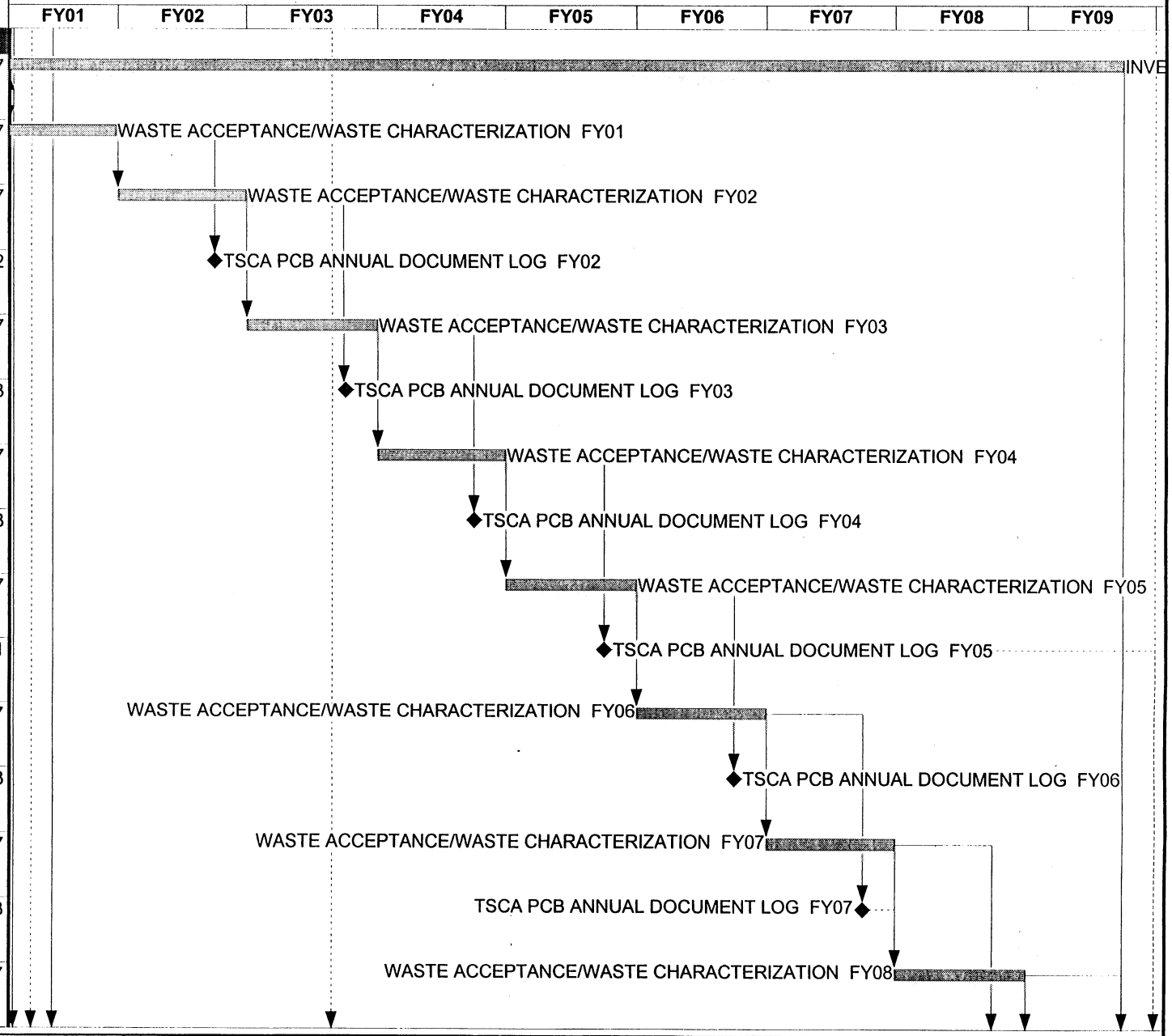
#43	TACO Furnace	30'x30'x15'
#44	Floor drains	App. 200'
Plant 5		
#45	2 Elevators	25'x25'x10'
#46	Old Bldg 55	15'x15'x20'

Beginning end of FY01 a plan will be implemented that allows the discontinuance of pumping of sumps with the exception of Plant 6 location. The technical basis is an evaluation of the storm water drainage system tie – ins to ensure collection and movement of rain water collected in sumps to AWWT. This allows the reduction in scope and manpower requirements.

SECTION 2

2.0 SCHEDULE

Activity ID	Orig Dur	Baseline Early start	Baseline Early finish	Total Float
WASTE MGT OPERATIONS SITEWIDE SUPPORT				
MMMB1WCHH0	1,921*	01DEC00	01JUL09	57
MMMB1WCH01	186	01DEC00	27SEP01	57
MMMB1WCH02	224	01OCT01	30SEP02	57
MMDOE11002	0		01JUL02	72
MMMB1WCH03	224	01OCT02	30SEP03	57
MMDOE11003	0		01JUL03	113
MMMB1WCH04	225	01OCT03	30SEP04	57
MMDOE11004	0		01JUL04	113
MMMB1WCH05	224	01OCT04	30SEP05	57
MMDOE11005	0		05JUL05	951
MMMB1WCH06	223	03OCT05	29SEP06	57
MMDOE11006	0		03JUL06	113
MMMB1WCH07	223	02OCT06	28SEP07	57
MMDOE11007	0		02JUL07	113
MMMB1WCH08	225	01OCT07	30SEP08	57



Start Date	01DEC00
Finish Date	30SEP09
Data Date	01DEC00
Run Date	12SEP01 09:11

BLCF - MM01

Sheet 4 of 12

FLUOR FERNALD, INC

Waste Management Baseline Schedule #2

Early Bar
Progress Bar
Critical Activity

Comment Ref: R1-D-559

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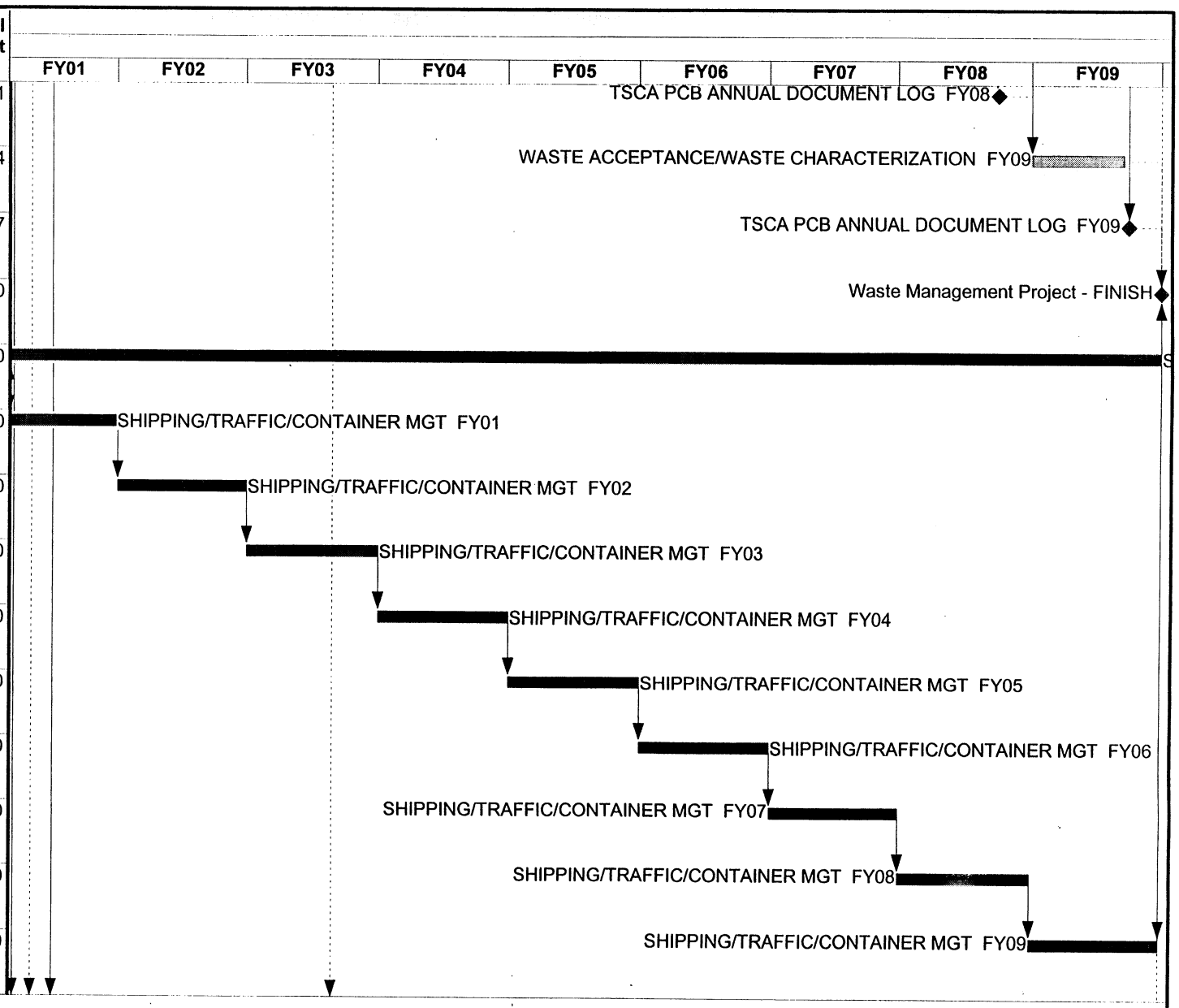
Activity ID	Orig Dur	Baseline Early start	Baseline Early finish	Total Float
MMDOE11008	0		01JUL08	121
MMMB1WCH09	160	01OCT08	19JUN09	64
MMDOE11009	0		01JUL09	57
MMPBS11012	0		30SEP09	0
MMMB2SHPH1	1,978*	01DEC00	30SEP09	0
MMMB2SHP01	186	01DEC00	27SEP01	0
MMMB2SHP02	224	01OCT01	30SEP02	0
MMMB2SHP03	224	01OCT02	30SEP03	0
MMMB2SHP04	225	01OCT03	30SEP04	0
MMMB2SHP05	224	01OCT04	30SEP05	0
MMMB2SHP06	223	03OCT05	29SEP06	0
MMMB2SHP07	223	02OCT06	28SEP07	0
MMMB2SHP08	225	01OCT07	30SEP08	0
MMMB2SHP09	224	01OCT08	30SEP09	0



Start Date	01DEC00
Finish Date	30SEP09
Data Date	01DEC00
Run Date	12SEP01 09:11

BLCF - MM01

Sheet 5 of 12

FLUOR FERNALD, INC

Waste Management Baseline Schedule #2

Early Bar
Progress Bar
Critical Activity

Comment Ref: R1-D-559

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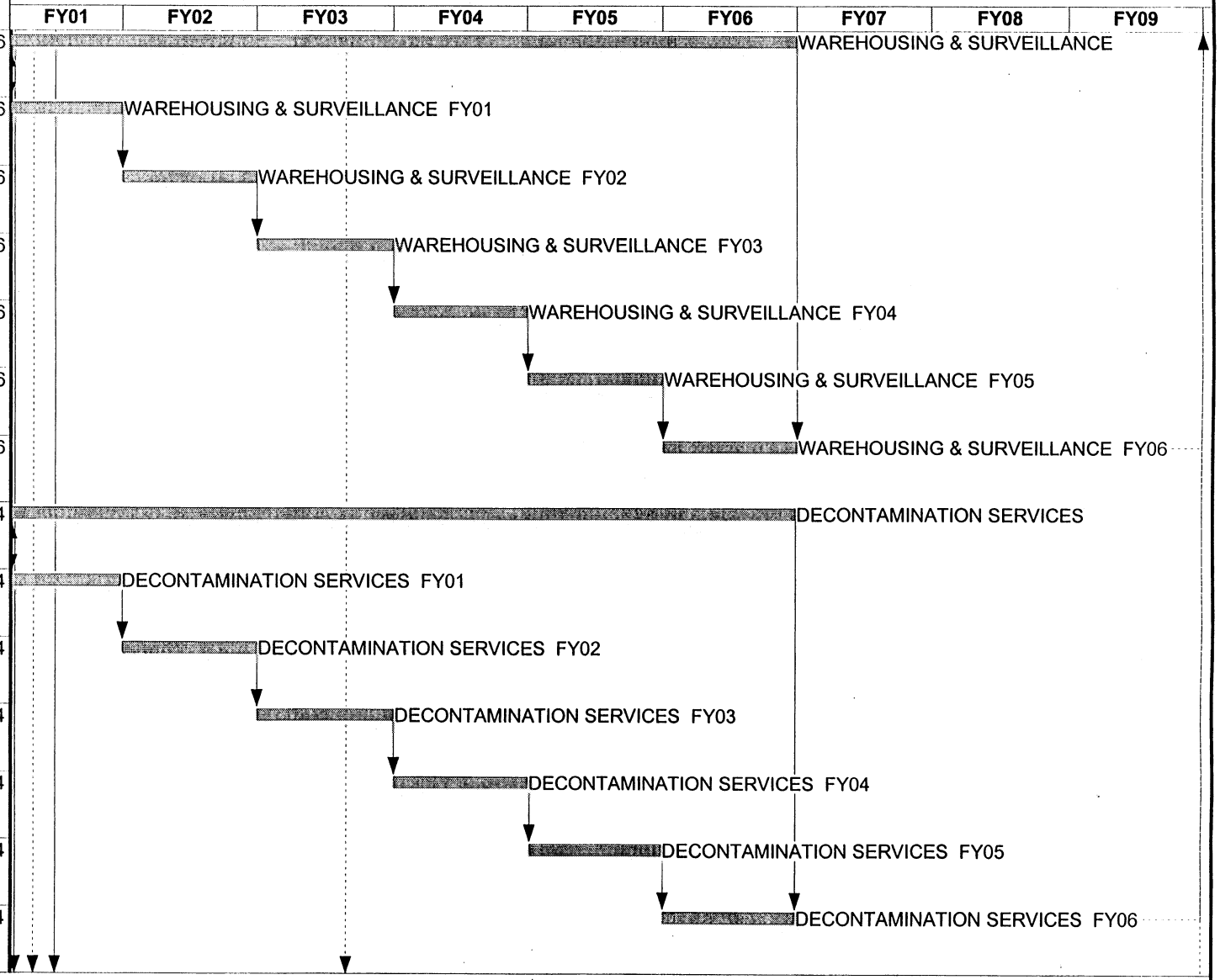
Activity ID	Orig Dur	Baseline Early start	Baseline Early finish	Total Float
MMMB3WHSH3	2,130*	01DEC00	30SEP06	1,096
MMMB3WHS01	304	01DEC00	30SEP01	1,096
MMMB3WHS02	365	01OCT01	30SEP02	1,096
MMMB3WHS03	365	01OCT02	30SEP03	1,096
MMMB3WHS04	366	01OCT03	30SEP04	1,096
MMMB3WHS05	365	01OCT04	30SEP05	1,096
MMMB3WHS06	365	01OCT05	30SEP06	1,096
MMMB4DCTH4	1,170*	04DEC00	28SEP06	604
MMMB4DCT01	166	04DEC00	27SEP01	604
MMMB4DCT02	200	01OCT01	30SEP02	604
MMMB4DCT03	201	01OCT02	30SEP03	604
MMMB4DCT04	201	01OCT03	30SEP04	604
MMMB4DCT05	201	04OCT04	29SEP05	604
MMMB4DCT06	201	03OCT05	28SEP06	604



Start Date	01DEC00
Finish Date	30SEP09
Data Date	01DEC00
Run Date	12SEP01 09:11

BLCF - MM01

Sheet 6 of 12

FLUOR FERNALD, INC

Waste Management Baseline Schedule #2

Early Bar
Progress Bar
Critical Activity

Comment Ref: R1-D-559

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SECTION 2
3.0 MANPOWER PLANS

Manpower Planning Sheet (CR2)

MPS # 1MB01 WAO/WASTE CHARACTERIZATION & INVENTORY

DRIVERS	START DATE	END DATE	TOT	FY 2001 Q1 Q2 Q3 Q4	FY 2002 Q1 Q2 Q3 Q4	FY 2003 Q1 Q2 Q3 Q4	FY 2004 Q1 Q2 Q3 Q4	FY 2005 Q1 Q2 Q3 Q4	FY 2006 Q1 Q2 Q3 Q4
201 D&D Summary	10/02/2000	03/30/2007		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx
304 OSDF CELL 3 - Waste Placement	04/01/2004	03/31/2006					xxx xxx	xxx xxx xxx xxx	xxx xxx
307 OSDF CELL 4 - Waste Placement	10/01/2004	03/30/2007						xxx xxx xxx xxx	xxx xxx xxx xxx
310 OSDF CELL 5 - Waste Placement	10/03/2005	03/31/2008							xxx xxx xxx xxx
313 OSDF CELL 6 - Waste Placement	10/02/2006	06/30/2009							
502 WASTE PIT SHIP/DISPOSAL OPERATIONS	10/02/2000	08/01/2005		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xx	
602 Area 3B Excavation	10/03/2005	03/31/2008							xxx xxx xxx xxx
604 Area 4A: Excavation	04/01/2004	09/30/2005					xxx xxx	xxx xxx xxx xxx	
606 Area 4B Excavation	10/03/2005	03/31/2008							xxx xxx xxx xxx
611 Area 6: Excavation	10/02/2006	09/28/2007							
616 Area 7, Sector 1 and 4 Excavation	01/02/2008	09/30/2008							
629 Area 3A: Excavation	04/01/2004	06/30/2005					xxx xxx	xxx xxx xxx	
632 Area 5: Excavation	10/03/2005	03/31/2008							xxx xxx xxx xxx
801 Nuclear Materials Summary	10/02/2000	05/20/2002		xxx xxx xxx xxx	xxx xxx xx				
802 Setup of Fac. & Repkg of Uranium Metals	10/02/2000	07/18/2001		xxx xxx xxx x					
803 Setup of Fac. & Repkg of < 1% Uranium	10/02/2000	08/30/2001		xxx xxx xxx xx					
804 Facilities Setup for Repkg > 1 WT% U235	10/02/2000	12/27/2001		xxx xxx xxx xxx	xxx				
805 Shipment of Nuclear Materials	10/02/2000	01/10/2002		xxx xxx xxx xxx	xxx x				
806 Nuc. Material Risk/PPE/SCA/Planning/Whse	10/02/2000	05/20/2002		xxx xxx xxx xxx	xxx xxx xx				
807 Small Scale Processing of Nuclear Material	10/02/2000	01/30/2001		xxx x					
808 UWD Depleted LLW & Depleted Ingots	10/02/2000	04/17/2002		xxx xxx xxx xxx	xxx xxx x				
809 Enriched Oxide/Metal & Residue	10/02/2000	01/06/2003		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx x			
810 UWD Planning	10/02/2000	09/30/2003		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx			
811 PPE & SCA Support for UWD Activities	07/23/2001	10/16/2003		xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	x		
812 UWD RCRA Materials	02/04/2002	01/20/2004			xx xxx xxx	xxx xxx xxx xxx	xxx x		
813 Feas. Study Processing Uranium Waste	10/01/2002	06/18/2003				xxx xxx xxx			
814 UWZ Design/Const/Treat/Ship	10/02/2003	09/29/2005					xxx xxx xxx xxx	xxx xxx xxx xxx	
1001 Mixed Waste Summary	10/02/2000	09/30/2003		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx			
1002 SSD MW DISPOSITION	10/02/2000	09/30/2002		xxx xxx xxx xxx	xxx xxx xxx xxx				
1003 Thorium Stabilization	10/02/2000	01/09/2001		xxx x					
1004 Neutralization Precipitation Deactivation	10/02/2000	01/25/2001		xxx x					
1005 Char/Pack/Ship Hazardous Waste	10/02/2000	09/28/2001		xxx xxx xxx xxx					
1006 Organic Treatment Project (PCB)	10/02/2000	07/02/2003		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx x			
1007 Thorium Mixed Waste	10/02/2000	07/15/2003		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx x			
1008 Mixed Waste Admin	10/02/2000	09/30/2003		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx			
1009 Inorganic Small Quantity	10/01/2001	07/18/2002			xxx xxx xxx x				
1010 DECONTAMINATION/MACROENCAPULATIO	01/02/2001	01/16/2002		xxx xxx xxx	xxx x				
1011 INORGANIC SAMPLE DISPOSITION	01/02/2001	01/16/2002		xxx xxx xxx	xxx x				
1012 LIQUID AWWT	10/02/2000	11/16/2000		xx					

Manpower Planning Sheet (CR2)

MPS # 1MB01 WAO/WASTE CHARACTERIZATION & INVENTORY

DRIVERS	START DATE	END DATE	FY 2007 Q1 Q2 Q3 Q4	FY 2008 Q1 Q2 Q3 Q4	FY 2009 Q1 Q2 Q3 Q4	FY 2010 Q1 Q2 Q3 Q4	FY 2011 Q1 Q2 Q3 Q4
201 D&D Summary	10/02/2000	03/30/2007	xxx xxx				
304 OSDF CELL 3 - Waste Placement	04/01/2004	03/31/2006					
307 OSDF CELL 4 - Waste Placement	10/01/2004	03/30/2007	xxx xxx				
310 OSDF CELL 5 - Waste Placement	10/03/2005	03/31/2008	xxx xxx xxx xxx	xxx xxx			
313 OSDF CELL 6 - Waste Placement	10/02/2006	06/30/2009	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx		
502 WASTE PIT SHIP/DISPOSAL OPERATION	10/02/2000	08/01/2005					
602 Area 3B Excavation	10/03/2005	03/31/2008	xxx xxx xxx xxx	xxx xxx			
604 Area 4A: Excavation	04/01/2004	09/30/2005					
606 Area 4B Excavation	10/03/2005	03/31/2008	xxx xxx xxx xxx	xxx xxx			
611 Area 6: Excavation	10/02/2006	09/28/2007	xxx xxx xxx xxx				
616 Area 7, Sector 1 and 4 Excavation	01/02/2008	09/30/2008		xxx xxx xxx			
629 Area 3A: Excavation	04/01/2004	06/30/2005					
632 Area 5: Excavation	10/03/2005	03/31/2008	xxx xxx xxx xxx	xxx xxx			
801 Nuclear Materials Summary	10/02/2000	05/20/2002					
802 Setup of Fac. & Repkg of Uranium Metals	10/02/2000	07/18/2001					
803 Setup of Fac. & Repkg of < 1% Uranium	10/02/2000	08/30/2001					
804 Facilities Setup for Repkg > 1 WT% U235	10/02/2000	12/27/2001					
805 Shipment of Nuclear Materials	10/02/2000	01/10/2002					
806 Nuc. Material Risk/PPE/SCA/Planning/Whs	10/02/2000	05/20/2002					
807 Small Scale Processing of Nuclear Material	10/02/2000	01/30/2001					
808 UWD Depleted LLW & Depleted Ingots	10/02/2000	04/17/2002					
809 Enriched Oxide/Metal & Residue	10/02/2000	01/06/2003					
810 UWD Planning	10/02/2000	09/30/2003					
811 PPE & SCA Support for UWD Activities	07/23/2001	10/16/2003					
812 UWD RCRA Materials	02/04/2002	01/20/2004					
813 Feas. Study Processing Uranium Waste	10/01/2002	06/18/2003					
814 UWZ Design/Const/Treat/Ship	10/02/2003	09/29/2005					
1001 Mixed Waste Summary	10/02/2000	09/30/2003					
1002 SSD MW DISPOSITION	10/02/2000	09/30/2002					
1003 Thorium Stabilization	10/02/2000	01/09/2001					
1004 Neutralization Precipitation Deactivation	10/02/2000	01/25/2001					
1005 Char/Pack/Ship Hazardous Waste	10/02/2000	09/28/2001					
1006 Organic Treatment Project (PCB)	10/02/2000	07/02/2003					
1007 Thorium Mixed Waste	10/02/2000	07/15/2003					
1008 Mixed Waste Admin	10/02/2000	09/30/2003					
1009 Inorganic Small Quantity	10/01/2001	07/18/2002					
1010 DECONTAMINATION/MACROENCAPULA	01/02/2001	01/16/2002					
1011 INORGANIC SAMPLE DISPOSITION	01/02/2001	01/16/2002					
1012 LIQUID AWWT	10/02/2000	11/16/2000					

Manpower Planning Sheet (CR2)

MPS # 1MB01 WAO/WASTE CHARACTERIZATION & INVENTORY

DRIVERS	START DATE	END DATE	TOT	FY 2001 Q1	FY 2001 Q2	FY 2001 Q3	FY 2001 Q4	FY 2002 Q1	FY 2002 Q2	FY 2002 Q3	FY 2002 Q4	FY 2003 Q1	FY 2003 Q2	FY 2003 Q3	FY 2003 Q4	FY 2004 Q1	FY 2004 Q2	FY 2004 Q3	FY 2004 Q4	FY 2005 Q1	FY 2005 Q2	FY 2005 Q3	FY 2005 Q4	FY 2006 Q1	FY 2006 Q2	FY 2006 Q3	FY 2006 Q4
1013 LIQUID TSCA	10/02/2000	03/28/2002		XXX	XXX	XXX	XXX	XXX	XXX																		
1101 Low Level Waste Summary	10/02/2000	09/30/2005		XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX				
1102 Low Level Waste Processing and Packaging	10/02/2000	03/26/2001		XXX	XXX																						
1103 Low Level Waste Residues to NTS	10/02/2000	09/27/2001		XXX	XXX	XXX	XXX																				
1104 Low Level Waste Soil	10/02/2000	03/05/2002		XXX	XXX	XXX	XXX	XXX	XXX																		
1105 LLW Noncompactable Trash	10/02/2000	07/31/2002		XXX	XXX	XXX	XXX	XXX	XXX	XXX	X																
1106 Low Level Waste Asbestos	10/02/2000	09/30/2002		XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX																
1107 Low Level Waste Residues to Envirocare	10/02/2000	09/30/2003		XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX												
1108 Low Level Waste Administration	10/02/2000	09/29/2006		XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
1109 LLW Compactable Trash	10/02/2000	09/29/2006		XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
1110 LLW Waste Pit	11/30/2000	02/20/2001		XX	XX																						
1111 LLW THORIUM TRASH	05/29/2002	08/19/2002								XX	XX																
1112 SSD LLW DISPOSITION	10/02/2000	11/21/2000		XX																							

			TOT	FY 2001 Q1	FY 2001 Q2	FY 2001 Q3	FY 2001 Q4	FY 2002 Q1	FY 2002 Q2	FY 2002 Q3	FY 2002 Q4	FY 2003 Q1	FY 2003 Q2	FY 2003 Q3	FY 2003 Q4	FY 2004 Q1	FY 2004 Q2	FY 2004 Q3	FY 2004 Q4	FY 2005 Q1	FY 2005 Q2	FY 2005 Q3	FY 2005 Q4	FY 2006 Q1	FY 2006 Q2	FY 2006 Q3	FY 2006 Q4
	Project Management	Program Mgr.	4.00	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1,2,4,5,6,7	Waste Management	Waste Engineer	494.00	0	11	11	11	18	18	18	18	16	16	16	16	18	18	19	24	23	23	23	23	20	17.5	15.5	15
Data manageme	Administration	Clerks	13.40	1	1	1	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2	0.2
Record Custodia	Administration	Clerks	10.00	1	1	1	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0	0	0	0	0	0	0	0
SWIFTS/IIMS	Waste Management	Waste Engineer	2.00	0.5	0.5	0.5	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SWIFTS Maint	Information Management	Information Systems Rep.	4.00	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SWIFTS/E-Desk	Environmental	Environmental Scientist Rep.	3.60	0.9	0.9	0.9	0.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SWIFTS/Charact	Waste Management	Waste Engineer	2.80	0.7	0.7	0.7	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Field Inventory C	Procurement	Material Property Control Mgr.	15.00	1	1	1	1	1	1	1	1	1	1	1	1	0.5	0.5	0.5	0.5	0.5	0.5	0	0	0	0	0	0
Characterization	Project Management	Tech/Program Support Rep.	4.00	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Waste Management	Waste Engineering Mgr.	56.20	2	2	2	2	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2	2	2	2	2	2	2	2	2	2	2	2	2
Characterization	Waste Management	Waste Engineer	2.00	0.5	0.5	0.5	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PK Review Tea	Waste Management	Waste Engineer	5.50	1.5	1.5	1.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adminstrative	Waste Management	Waste Engineer	14.00	1	1	1	1	1	1	1	1	1	1	1	1	0.5	0.5	0.5	0.5	0	0	0	0	0	0	0	0
Surveillances	QA/QC	QA Engineer	0.20	0	0	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
management	Waste Management	Waste Engineering Mgr.	8.00	2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Project Management	Project Mgr.	30.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Stockpile Maint	Transportation Labor	Heavy Equipment Operator	4.00	0	0	0	0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0	0	0	0	0	0	0	0	0	0	0	0
		Sheet Totals:	672.70	16.10	27.10	27.20	26.70	25.10	25.10	25.10	25.10	23.10	23.10	23.10	22.50	23.00	23.00	24.00	29.00	27.00	27.00	26.50	26.50	23.50	21.00	18.70	18.20

Manpower Planning Sheet (CR2)

MPS # 1MB01 WAO/WASTE CHARACTERIZATION & INVENTORY

DRIVERS	START DATE	END DATE
1013 LIQUID TSCA	10/02/2000	03/28/2002
1101 Low Level Waste Summary	10/02/2000	09/30/2005
1102 Low Level Waste Processing and Packagin	10/02/2000	03/26/2001
1103 Low Level Waste Residues to NTS	10/02/2000	09/27/2001
1104 Low Level Waste Soil	10/02/2000	03/05/2002
1105 LLW Noncompactable Trash	10/02/2000	07/31/2002
1106 Low Level Waste Asbestos	10/02/2000	09/30/2002
1107 Low Level Waste Residues to Envirocare	10/02/2000	09/30/2003
1108 Low Level Waste Administration	10/02/2000	09/29/2006
1109 LLW Compactable Trash	10/02/2000	09/29/2006
1110 LLW Waste Pit	11/30/2000	02/20/2001
1111 LLW THORIUM TRASH	05/29/2002	08/19/2002
1112 SSD LLW DISPOSITION	10/02/2000	11/21/2000

		FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Project Management	Program Mgr.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Waste Management	Waste Engineer	13	13	15	11	9.5	10	3.5	3.5	2.5	2.5	2.5	0	0	0	0	0	0	0	0	0
Administration	Clerks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Administration	Clerks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Waste Management	Waste Engineer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Information Management	Information Systems Rep.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental	Environmental Scientist Rep.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Waste Management	Waste Engineer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Procurement	Material Property Control Mgr.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Management	Tech/Program Support Rep.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Waste Management	Waste Engineering Mgr.	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Waste Management	Waste Engineer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Waste Management	Waste Engineer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Waste Management	Waste Engineer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QA/QC	QA Engineer.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Waste Management	Waste Engineering Mgr.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Management	Project Mgr.	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transportation Labor	Heavy Equipment Operator	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sheet Totals:	15.00	15.00	17.00	13.00	10.50	11.00	3.50	3.50	2.50	2.50	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Manpower Planning Sheet (CR2)

MPS # 1MB02 SHIPPING/TRAFFIC/CONTAINER MGT

	DRIVERS	START DATE	END DATE	TOT	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
					Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4
801	Nuclear Materials Summary	10/02/2000	05/20/2002		xxx xxx xxx xxx	xxx xxx xx				
802	Setup of Fac. & Repkg of Uranium Metals	10/02/2000	07/18/2001		xxx xxx xxx x					
803	Setup of Fac. & Repkg of < 1% Uranium	10/02/2000	08/30/2001		xxx xxx xxx xx					
804	Facilities Setup for Repkg > 1 WT% U235	10/02/2000	12/27/2001		xxx xxx xxx xxx	xxx				
805	Shipment of Nuclear Materials	10/02/2000	01/10/2002		xxx xxx xxx xxx	xxx x				
806	Nuc. Material Risk/PPE/SCA/Planning/Whse	10/02/2000	05/20/2002		xxx xxx xxx xxx	xxx xxx xx				
807	Small Scale Processing of Nuclear Material	10/02/2000	01/30/2001		xxx x					
808	UWD Depleted LLW & Depleted Ingots	10/02/2000	04/17/2002		xxx xxx xxx xxx	xxx xxx x				
809	Enriched Oxide/Metal & Residue	10/02/2000	01/06/2003		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx x			
810	UWD Planning	10/02/2000	09/30/2003		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx			
811	PPE & SCA Support for UWD Activities	07/23/2001	10/16/2003		xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	x		
812	UWD RCRA Materials	02/04/2002	01/20/2004			xx xxx xxx	xxx xxx xxx xxx	xxx x		
813	Feas. Study Processing Uranium Waste	10/01/2002	06/18/2003				xxx xxx xxx			
814	UWZ Design/Const/Treat/Ship	10/02/2003	09/29/2005					xxx xxx xxx xxx	xxx xxx xxx xxx	
1001	Mixed Waste Summary	10/02/2000	09/30/2003		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx			
1002	SSD MW DISPOSITION	10/02/2000	09/30/2002		xxx xxx xxx xxx	xxx xxx xxx xxx				
1003	Thorium Stabilization	10/02/2000	01/09/2001		xxx x					
1004	Neutralization Precipitation Deactivation	10/02/2000	01/25/2001		xxx x					
1005	Char/Pack/Ship Hazardous Waste	10/02/2000	09/28/2001		xxx xxx xxx xxx					
1006	Organic Treatment Project (PCB)	10/02/2000	07/02/2003		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx x			
1007	Thorium Mixed Waste	10/02/2000	07/15/2003		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx x			
1008	Mixed Waste Admin	10/02/2000	09/30/2003		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx			
1009	Inorganic Small Quantity	10/01/2001	07/18/2002			xxx xxx xxx x				
1010	DECONTAMINATION/MACROENCAPULATIO	01/02/2001	01/16/2002		xxx xxx xxx	xxx x				
1011	INORGANIC SAMPLE DISPOSITION	01/02/2001	01/16/2002		xxx xxx xxx	xxx x				
1012	LIQUID AWWT	10/02/2000	11/16/2000		xx					
1013	LIQUID TSCA	10/02/2000	03/28/2002		xxx xxx xxx xxx	xxx xxx				
1101	Low Level Waste Summary	10/02/2000	09/30/2005		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	
1102	Low Level Waste Processing and Packaging	10/02/2000	03/26/2001		xxx xxx					
1103	Low Level Waste Residues to NTS	10/02/2000	09/27/2001		xxx xxx xxx xxx					
1104	Low Level Waste Soil	10/02/2000	03/05/2002		xxx xxx xxx xxx	xxx xxx				
1105	LLW Noncompactable Trash	10/02/2000	07/31/2002		xxx xxx xxx xxx	xxx xxx xxx x				
1106	Low Level Waste Asbestos	10/02/2000	09/30/2002		xxx xxx xxx xxx	xxx xxx xxx xxx				
1107	Low Level Waste Residues to Envirocare	10/02/2000	09/30/2003		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx			
1108	Low Level Waste Administration	10/02/2000	09/29/2006		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx
1109	LLW Compactable Trash	10/02/2000	09/29/2006		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx
1110	LLW Waste Pit	11/30/2000	02/20/2001		xx xx					
1111	LLW THORIUM TRASH	05/29/2002	08/19/2002			xx xx				
1112	SSD LLW DISPOSITION	10/02/2000	11/21/2000		xx					

Manpower Planning Sheet (CR2)

MPS # 1MB02 SHIPPING/TRAFFIC/CONTAINER MGT

DRIVERS	START DATE	END DATE	FY 2007 Q1 Q2 Q3 Q4	FY 2008 Q1 Q2 Q3 Q4	FY 2009 Q1 Q2 Q3 Q4	FY 2010 Q1 Q2 Q3 Q4	FY 2011 Q1 Q2 Q3 Q4
801 Nuclear Materials Summary	10/02/2000	05/20/2002					
802 Setup of Fac. & Repkg of Uranium Metals	10/02/2000	07/18/2001					
803 Setup of Fac. & Repkg of < 1% Uranium	10/02/2000	08/30/2001					
804 Facilities Setup for Repkg > 1 WT% U235	10/02/2000	12/27/2001					
805 Shipment of Nuclear Materials	10/02/2000	01/10/2002					
806 Nuc. Material Risk/PPE/SCA/Planning/Whs	10/02/2000	05/20/2002					
807 Small Scale Processing of Nuclear Material	10/02/2000	01/30/2001					
808 UWD Depleted LLW & Depleted Ingots	10/02/2000	04/17/2002					
809 Enriched Oxide/Metal & Residue	10/02/2000	01/06/2003					
810 UWD Planning	10/02/2000	09/30/2003					
811 PPE & SCA Support for UWD Activities	07/23/2001	10/16/2003					
812 UWD RCRA Materials	02/04/2002	01/20/2004					
813 Feas. Study Processing Uranium Waste	10/01/2002	06/18/2003					
814 UWZ Design/Const/Treat/Ship	10/02/2003	09/29/2005					
1001 Mixed Waste Summary	10/02/2000	09/30/2003					
1002 SSD MW DISPOSITION	10/02/2000	09/30/2002					
1003 Thorium Stabilization	10/02/2000	01/09/2001					
1004 Neutralization Precipitation Deactivation	10/02/2000	01/25/2001					
1005 Char/Pack/Ship Hazardous Waste	10/02/2000	09/28/2001					
1006 Organic Treatment Project (PCB)	10/02/2000	07/02/2003					
1007 Thorium Mixed Waste	10/02/2000	07/15/2003					
1008 Mixed Waste Admin	10/02/2000	09/30/2003					
1009 Inorganic Small Quantity	10/01/2001	07/18/2002					
1010 DECONTAMINATION/MACROENCAPULA	01/02/2001	01/16/2002					
1011 INORGANIC SAMPLE DISPOSITION	01/02/2001	01/16/2002					
1012 LIQUID AWWT	10/02/2000	11/16/2000					
1013 LIQUID TSCA	10/02/2000	03/28/2002					
1101 Low Level Waste Summary	10/02/2000	09/30/2005					
1102 Low Level Waste Processing and Packagin	10/02/2000	03/26/2001					
1103 Low Level Waste Residues to NTS	10/02/2000	09/27/2001					
1104 Low Level Waste Soil	10/02/2000	03/05/2002					
1105 LLW Noncompactable Trash	10/02/2000	07/31/2002					
1106 Low Level Waste Asbestos	10/02/2000	09/30/2002					
1107 Low Level Waste Residues to Envirocare	10/02/2000	09/30/2003					
1108 Low Level Waste Administration	10/02/2000	09/29/2006					
1109 LLW Compactable Trash	10/02/2000	09/29/2006					
1110 LLW Waste Pit	11/30/2000	02/20/2001					
1111 LLW THORIUM TRASH	05/29/2002	08/19/2002					
1112 SSD LLW DISPOSITION	10/02/2000	11/21/2000					

Manpower Planning Sheet (CR2)

MPS # 1MB02 SHIPPING/TRAFFIC/CONTAINER MGT

DRIVERS		START DATE	END DATE	TOT	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				FY 2006			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Manager Packag	Waste Management	Waste Engineering Mgr.		22.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.5	0.5	0.5	0.5
Shipping	Waste Management	Waste Engineer		49.60	2.6	2.6	3	3	2.1	2	2.1	2.1	2	2	2	2	2.1	2	2	2	1	1	1	1	1	0.5	0.5	0.5
Shipping	QA/QC	QA Engineer		11.60	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3
Traffic	Maintenance	Project Support Rep.		37.90	2.8	2.8	2.5	2.8	2	2	2	2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1	1	0.5	0.5	0.5	0.5	0.5	0.5
Records Custodi	Administration	Clerks		24.40	1.6	1.6	1.6	1.6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.5	0.5	0.5	0.5	0.5	0.5
Packaging	Engineering & Design	Engineer		27.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Packaging Supp	Project Management	Tech/Program Support Rep.		4.00	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Package Inv. Co	Procurement	Material Property Control Rep.		16.20	1.1	1.1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0
	Transportation Labor	Motor Vehicle Operator		5.20	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Annual Update S	Environmental Safety & H	Safety Engineer		0.50	0	0	0.1	0	0	0.1	0	0	0	0.1	0	0	0	0.1	0	0	0	0.1	0	0	0	0	0	0
Centralized	Procurement	Buyer/Contracts Administrator		4.60	0.5	0.5	0.5	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2
Centralized	Engineering & Design	Drafter/CAD Operator		1.00	0.5	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			Sheet Totals:	204.00	12.80	12.80	12.40	12.60	8.80	8.80	8.80	8.80	8.20	8.30	8.20	8.20	8.30	8.30	8.20	8.20	5.60	5.70	4.50	4.50	3.90	3.40	3.40	3.60

Manpower Planning Sheet (CR2)

MPS # 1MB02 SHIPPING/TRAFFIC/CONTAINER MGT

DRIVERS	START DATE	END DATE	FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Waste Management	Waste Engineering Mgr.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Waste Management	Waste Engineer		0.5	0.5	0.5	0.5	1	1	1	1	0.5	0.5	0.5	0	0	0	0	0	0	0	0	0
QA/QC	QA Engineer		0.3	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance	Project Support Rep.		0.5	0.5	0.5	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Administration	Clerks		0.5	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Engineering & Design	Engineer		1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Management	Tech/Program Support Rep.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Procurement	Material Property Control Rep.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transportation Labor	Motor Vehicle Operator		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0
Environmental Safety & Health	Safety Engineer		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Procurement	Buyer/Contracts Administrator		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0	0	0	0	0	0	0	0
Engineering & Design	Drafter/CAD Operator		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Sheet Totals:	3.10	3.10	2.30	1.30	1.30	1.30	1.30	1.30	0.80	0.80	0.80	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Manpower Planning Sheet (CR2)

MPS # 1MB03 WAREHOUSING & SURVELLIANCE

	DRIVERS	START DATE	END DATE	TOT	FY 2001 Q1 Q2 Q3 Q4	FY 2002 Q1 Q2 Q3 Q4	FY 2003 Q1 Q2 Q3 Q4	FY 2004 Q1 Q2 Q3 Q4	FY 2005 Q1 Q2 Q3 Q4	FY 2006 Q1 Q2 Q3 Q4
801	Nuclear Materials Summary	10/02/2000	05/20/2002		xxx xxx xxx xxx	xxx xxx xx				
802	Setup of Fac. & Repkg of Uranium Metals	10/02/2000	07/18/2001		xxx xxx xxx x					
803	Setup of Fac. & Repkg of < 1% Uranium	10/02/2000	08/30/2001		xxx xxx xxx xx					
804	Facilities Setup for Repkg > 1 WT% U235	10/02/2000	12/27/2001		xxx xxx xxx xxx	xxx				
805	Shipment of Nuclear Materials	10/02/2000	01/10/2002		xxx xxx xxx xxx	xxx x				
806	Nuc. Material Risk/PPE/SCA/Planning/Whse	10/02/2000	05/20/2002		xxx xxx xxx xxx	xxx xxx xx				
807	Small Scale Processing of Nuclear Material	10/02/2000	01/30/2001		xxx x					
808	UWD Depleted LLW & Depleted Ingots	10/02/2000	04/17/2002		xxx xxx xxx xxx	xxx xxx x				
809	Enriched Oxide/Metal & Residue	10/02/2000	01/06/2003		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx x			
810	UWD Planning	10/02/2000	09/30/2003		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx			
811	PPE & SCA Support for UWD Activities	07/23/2001	10/16/2003		xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	x		
812	UWD RCRA Materials	02/04/2002	01/20/2004			xx xxx xxx	xxx xxx xxx xxx	xxx x		
813	Feas. Study Processing Uranium Waste	10/01/2002	06/18/2003				xxx xxx xxx			
814	UWZ Design/Const/Treat/Ship	10/02/2003	09/29/2005					xxx xxx xxx xxx	xxx xxx xxx xxx	
1001	Mixed Waste Summary	10/02/2000	09/30/2003		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx			
1002	SSD MW DISPOSITION	10/02/2000	09/30/2002		xxx xxx xxx xxx	xxx xxx xxx xxx				
1003	Thorium Stabilization	10/02/2000	01/09/2001		xxx x					
1004	Neutralization Precipitation Deactivation	10/02/2000	01/25/2001		xxx x					
1005	Char/Pack/Ship Hazardous Waste	10/02/2000	09/28/2001		xxx xxx xxx xxx					
1006	Organic Treatment Project (PCB)	10/02/2000	07/02/2003		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx x			
1007	Thorium Mixed Waste	10/02/2000	07/15/2003		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx x			
1008	Mixed Waste Admin	10/02/2000	09/30/2003		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx			
1009	Inorganic Small Quantity	10/01/2001	07/18/2002			xxx xxx xxx x				
1010	DECONTAMINATION/MACROENCAPULATIO	01/02/2001	01/16/2002		xxx xxx xxx	xxx x				
1011	INORGANIC SAMPLE DISPOSITION	01/02/2001	01/16/2002		xxx xxx xxx	xxx x				
1012	LIQUID AWWT	10/02/2000	11/16/2000		xx					
1013	LIQUID TSCA	10/02/2000	03/28/2002		xxx xxx xxx xxx	xxx xxx				
1101	Low Level Waste Summary	10/02/2000	09/30/2005		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	
1102	Low Level Waste Processing and Packaging	10/02/2000	03/26/2001		xxx xxx					
1103	Low Level Waste Residues to NTS	10/02/2000	09/27/2001		xxx xxx xxx xxx					
1104	Low Level Waste Soil	10/02/2000	03/05/2002		xxx xxx xxx xxx	xxx xxx				
1105	LLW Noncompactable Trash	10/02/2000	07/31/2002		xxx xxx xxx xxx	xxx xxx xxx x				
1106	Low Level Waste Asbestos	10/02/2000	09/30/2002		xxx xxx xxx xxx	xxx xxx xxx xxx				
1107	Low Level Waste Residues to Envirocare	10/02/2000	09/30/2003		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx			
1108	Low Level Waste Administration	10/02/2000	09/29/2006		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx
1109	LLW Compactable Trash	10/02/2000	09/29/2006		xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx
1110	LLW Waste Pit	11/30/2000	02/20/2001		xx xx					
1111	LLW THORIUM TRASH	05/29/2002	08/19/2002			xx xx				
1112	SSD LLW DISPOSITION	10/02/2000	11/21/2000		xx					

Manpower Planning Sheet (CR2)

MPS # 1MB03 WAREHOUSING & SURVELLIANCE

DRIVERS	START DATE	END DATE	FY 2007 Q1 Q2 Q3 Q4	FY 2008 Q1 Q2 Q3 Q4	FY 2009 Q1 Q2 Q3 Q4	FY 2010 Q1 Q2 Q3 Q4	FY 2011 Q1 Q2 Q3 Q4
801 Nuclear Materials Summary	10/02/2000	05/20/2002					
802 Setup of Fac. & Repkg of Uranium Metals	10/02/2000	07/18/2001					
803 Setup of Fac. & Repkg of < 1% Uranium	10/02/2000	08/30/2001					
804 Facilities Setup for Repkg > 1 WT% U235	10/02/2000	12/27/2001					
805 Shipment of Nuclear Materials	10/02/2000	01/10/2002					
806 Nuc. Material Risk/PPE/SCA/Planning/Whs	10/02/2000	05/20/2002					
807 Small Scale Processing of Nuclear Material	10/02/2000	01/30/2001					
808 UWD Depleted LLW & Depleted Ingots	10/02/2000	04/17/2002					
809 Enriched Oxide/Metal & Residue	10/02/2000	01/06/2003					
810 UWD Planning	10/02/2000	09/30/2003					
811 PPE & SCA Support for UWD Activities	07/23/2001	10/16/2003					
812 UWD RCRA Materials	02/04/2002	01/20/2004					
813 Feas. Study Processing Uranium Waste	10/01/2002	06/18/2003					
814 UWZ Design/Const/Treat/Ship	10/02/2003	09/29/2005					
1001 Mixed Waste Summary	10/02/2000	09/30/2003					
1002 SSD MW DISPOSITION	10/02/2000	09/30/2002					
1003 Thorium Stabilization	10/02/2000	01/09/2001					
1004 Neutralization Precipitation Deactivation	10/02/2000	01/25/2001					
1005 Char/Pack/Ship Hazardous Waste	10/02/2000	09/28/2001					
1006 Organic Treatment Project (PCB)	10/02/2000	07/02/2003					
1007 Thorium Mixed Waste	10/02/2000	07/15/2003					
1008 Mixed Waste Admin	10/02/2000	09/30/2003					
1009 Inorganic Small Quantity	10/01/2001	07/18/2002					
1010 DECONTAMINATION/MACROENCAPULA	01/02/2001	01/16/2002					
1011 INORGANIC SAMPLE DISPOSITION	01/02/2001	01/16/2002					
1012 LIQUID AWWT	10/02/2000	11/16/2000					
1013 LIQUID TSCA	10/02/2000	03/28/2002					
1101 Low Level Waste Summary	10/02/2000	09/30/2005					
1102 Low Level Waste Processing and Packagin	10/02/2000	03/26/2001					
1103 Low Level Waste Residues to NTS	10/02/2000	09/27/2001					
1104 Low Level Waste Soil	10/02/2000	03/05/2002					
1105 LLW Noncompactable Trash	10/02/2000	07/31/2002					
1106 Low Level Waste Asbestos	10/02/2000	09/30/2002					
1107 Low Level Waste Residues to Envirocare	10/02/2000	09/30/2003					
1108 Low Level Waste Administration	10/02/2000	09/29/2006					
1109 LLW Compactable Trash	10/02/2000	09/29/2006					
1110 LLW Waste Pit	11/30/2000	02/20/2001					
1111 LLW THORIUM TRASH	05/29/2002	08/19/2002					
1112 SSD LLW DISPOSITION	10/02/2000	11/21/2000					

Manpower Planning Sheet (CR2)

MPS # 1MB03 WAREHOUSING & SURVELLIANCE

DRIVERS		START DATE	END DATE	TOT	FY 2001 Q1	FY 2001 Q2	FY 2001 Q3	FY 2001 Q4	FY 2002 Q1	FY 2002 Q2	FY 2002 Q3	FY 2002 Q4	FY 2003 Q1	FY 2003 Q2	FY 2003 Q3	FY 2003 Q4	FY 2004 Q1	FY 2004 Q2	FY 2004 Q3	FY 2004 Q4	FY 2005 Q1	FY 2005 Q2	FY 2005 Q3	FY 2005 Q4	FY 2006 Q1	FY 2006 Q2	FY 2006 Q3	FY 2006 Q4
	Waste Management	Waste Engineering Mgr.		7.60	0.9	0.9	0.9	0.9	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0	0	0	0	0	0	0	0	0	0	0	0
Pad 1 Planning	Waste Management	Waste Engineer		58.40	5.2	5.2	5.2	5.2	3	3	3	3	3	3	3	3	2	2	2	2	1	1	1	1	0.4	0.4	0.4	0.4
Operations Supv.	Maintenance	Project Support Manager		57.30	3.2	3.2	4.2	4.2	4	4	4	4	3.5	3.5	3.5	3	1.5	1.5	1.5	1.5	1	1	1	1	1	1	1	0
Records Custodi	Administration	Clerks		0.40	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Environmental Safety & H	Rad Engineer		2.00	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0	0
	Environmental Safety & H	Rad Tech		46.00	3	3	3	3	3	3	3	3	2	2	2	2	1.4	1.4	1.4	1.4	1.4	1	1	1	1	1	1	1
	Environmental Safety & H	Safety Engineer		1.20	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0	0
Safety Analysis/	Environmental Safety & H	Safety Engineer		1.60	0	0	0	0.4	0	0	0	0.4	0	0	0	0.4	0	0	0	0.2	0	0	0	0.1	0	0	0	0.1
IH- H2 Sniff, Che	Environmental Safety & H	Safety Tech.		19.40	2	2	1.5	1.5	1	1	1	1	1	1	1	1	0.6	0.6	0.6	0.6	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2
	Procurement	Buyer/Contracts Administrator		0.40	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Procurement	Material Property Control Rep.		5.60	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0	0	0	0	0	0	0	0	0	0	0	0
	QA/QC	QA Engineer		18.00	1	1	1	1	1	1	1	1	1	1	1	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Inspections & Co	General Labor	Hazwat		189.80	13.2	13.2	13.2	13.2	12.5	12.5	12.5	12.5	10.5	10.5	9	9	5	5	5	5	4	4	4	4	3	3	3	3
Container move	Transportation Labor	Heavy Equipment Operator		15.60	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.6	0.6	0.6	0.6	0.4	0.4	0.4	0.4	0.2	0.2	0.2	0.2
Container Move	Transportation Labor	Motor Vehicle Operator		55.60	4.8	4.8	4	4	3	3	3	3	3	3	3	3	1.5	1.5	1.5	1.5	1	1	1	1	1	1	1	1
Mixed Waste Pro	General Labor	Hazwat		29.50	0	0	0	0	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3	2	0	0	0	0	0	0	0	0	0	0	0
Mixed Waste Pro	Transportation Labor	Motor Vehicle Operator		8.00	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Task Order	Project Management	Tech/Program Support Rep.		3.90	0.5	0.5	0.5	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0
	Information Management	Information Records Rep.		16.30	1	1	1	1	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4
Tools and Materi	Transportation Labor	Professional Warehouse Attendent		11.30	0.1	0.1	0.1	1	1	1	1	1	1	1	1	1	0.5	0.5	0.5	0.5	0	0	0	0	0	0	0	0
	Environmental Safety & H	Rad Supervisor/Manager		4.80	0	0	0	0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2	0.2	0.2	0.2	0	0	0	0	0	0	0	0
			Sheet Totals:	552.70	36.70	36.70	36.40	37.70	36.40	36.40	36.40	36.80	32.90	32.90	31.20	30.60	16.70	14.70	14.70	14.90	10.30	9.90	9.90	10.00	7.90	7.90	7.90	6.80

Manpower Planning Sheet (CR2)

MPS # 1MB03 WAREHOUSING & SURVELLIANCE

DRIVERS	START DATE	END DATE	FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Waste Management	Waste Engineering Mgr.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Waste Management	Waste Engineer		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance	Project Support Manager		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Administration	Clerks		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Rad Engineer		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Rad Tech		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Safety Engineer		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Safety Engineer		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Safety Tech.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Procurement	Buyer/Contracts Administrator		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Procurement	Material Property Control Rep.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QA/QC	QA Engineer		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
General Labor	Hazwat		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transportation Labor	Heavy Equipment Operator		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transportation Labor	Motor Vehicle Operator		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
General Labor	Hazwat		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transportation Labor	Motor Vehicle Operator		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Management	Tech/Program Support Rep.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Information Management	Information Records Rep.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transportation Labor	Professional Warehouse Attendent		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Rad Supervisor/Manager		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Sheet Totals:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Manpower Planning Sheet (CR2)

MPS # 1MB04 DECONTAMINATION SERVICES

DRIVERS			START DATE	END DATE	TOT	FY 2001 Q1	FY 2001 Q2	FY 2001 Q3	FY 2001 Q4	FY 2002 Q1	FY 2002 Q2	FY 2002 Q3	FY 2002 Q4	FY 2003 Q1	FY 2003 Q2	FY 2003 Q3	FY 2003 Q4	FY 2004 Q1	FY 2004 Q2	FY 2004 Q3	FY 2004 Q4	FY 2005 Q1	FY 2005 Q2	FY 2005 Q3	FY 2005 Q4	FY 2006 Q1	FY 2006 Q2	FY 2006 Q3	FY 2006 Q4
						#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er
Supervisor	Project Management	Tech/Program Support Mgr.			16.00	1	1	1	1	1	1	1	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	Environmental Safety & H	Rad Tech			12.00	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	Environmental Safety & H	Rad Engineer			2.50	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Industrial Hygien	Environmental Safety & H	Safety Tech.			2.40	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	General Labor	Hazwat			108.00	9	9	9	9	5	5	5	5	4	4	4	4	4	4	4	4	3	3	3	3	2	2	2	2
	Transportation Labor	Motor Vehicle Operator			20.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0
	Project Management	Tech/Program Support Rep.			2.40	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
				Sheet Totals:	163.30	11.80	11.80	11.80	11.80	7.80	7.80	7.90	7.80	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30	5.30	5.30	5.30	5.30	3.30	3.30	3.30	3.30

Manpower Planning Sheet (CR2)

MPS # 1MB04 DECONTAMINATION SERVICES

DRIVERS	START DATE	END DATE	FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
			#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er
Project Management	Tech/Program Support Mgr.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Rad Tech		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Rad Engineer		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Safety Tech.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
General Labor	Hazwat		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transportation Labor	Motor Vehicle Operator		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Management	Tech/Program Support Rep.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Sheet Totals:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

SECTION 2

4.0 ESTIMATE

MMMB1

WAO/WASTE CHARACTERIZATION & INVENTORY

09/07/2001
10:48 AM

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

PBS: OHFN11
WBS: 1.1.M.B
CTRL ACCT: MMMB
CHARGE NO: MMMB1
COMMENT NO: R1-F11-008

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: CLERKS **CLERKS** **EOC: LABOR**
Res Dept: 951 **Overtime:** **Class: SAL**

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	2,904.0	1,747.0	1,747.0	1,747.0	873.5	598.1	0.0	0.0	0.0	0.0
Cum Hours:	2,904.0	4,651.0	6,398.0	8,145.0	9,018.5	9,616.6	9,616.6	9,616.6	9,616.6	9,616.6
Yr Total Cost:	69,377	43,930	46,531	49,274	26,098	19,092	0	0	0	0
Cum Total Cost:	69,377	113,307	159,838	209,112	235,210	254,302	254,302	254,302	254,302	254,302

Resource: ENSREP **ENVIR SCIENCE REP** **EOC: LABOR**
Res Dept: 951 **Overtime:** **Class: SAL**

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,306.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,306.8	1,306.8	1,306.8	1,306.8	1,306.8	1,306.8	1,306.8	1,306.8	1,306.8	1,306.8
Yr Total Cost:	54,833	0	0	0	0	0	0	0	0	0
Cum Total Cost:	54,833	54,833	54,833	54,833	54,833	54,833	54,833	54,833	54,833	54,833

Resource: HEOOPR **HEAVY EQUIP OPERATOR** **EOC: LABOR**
Res Dept: 951 **Overtime:** **Class: HOU**

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	0.0	873.5	873.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	0.0	873.5	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0
Yr Total Cost:	0	28,925	30,638	0	0	0	0	0	0	0
Cum Total Cost:	0	28,925	59,563	59,563	59,563	59,563	59,563	59,563	59,563	59,563

Resource: INSREP **INFO SYSTEMS REP** **EOC: LABOR**
Res Dept: 951 **Overtime:** **Class: SAL**

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,452.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0
Yr Total Cost:	72,295	0	0	0	0	0	0	0	0	0
Cum Total Cost:	72,295	72,295	72,295	72,295	72,295	72,295	72,295	72,295	72,295	72,295

INCLUDES ESCALATION COSTS

09/07/2001
10:48 AM

PBS: OHFN11
WBS: 1.1.M.B
CTRL ACCT: MMMB
CHARGE NO: MMMB1
COMMENT NO: R1-F11-008

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: MAT300 **MATERIAL OBJCLASS300** **EOC:** MATERIAL
Res Dept: 951 **Overtime:** **Class:** MAT

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Units:	5,575.0	5,842.3	5,688.7	5,533.7	5,383.0	5,231.3	5,083.9	4,940.6	3,601.0	0.0
Cum Units:	5,575.0	11,417.3	17,105.9	22,639.6	28,022.6	33,253.9	38,337.8	43,278.4	46,879.4	46,879.4
Yr Total Cost:	5,575	6,000	6,000	6,000	6,000	6,000	6,000	6,000	4,500	0
Cum Total Cost:	5,575	11,575	17,575	23,575	29,575	35,575	41,575	47,575	52,075	52,075

Resource: MPCMGR **MATL PROP CTRL MGR** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,452.0	1,747.0	1,747.0	873.5	411.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,452.0	3,199.0	4,946.0	5,819.5	6,230.5	6,230.5	6,230.5	6,230.5	6,230.5	6,230.5
Yr Total Cost:	66,865	84,679	89,692	47,490	23,670	0	0	0	0	0
Cum Total Cost:	66,865	151,544	241,236	288,727	312,397	312,397	312,397	312,397	312,397	312,397

Resource: ODCTRVL **TRAVEL RESOURCE** **EOC:** ODC
Res Dept: 951 **Overtime:** **Class:** ODC

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Units:	1,695.0	973.7	948.1	922.3	897.2	871.9	847.3	823.4	400.1	0.0
Cum Units:	1,695.0	2,668.7	3,616.8	4,539.1	5,436.3	6,308.2	7,155.5	7,978.9	8,379.0	8,379.0
Yr Total Cost:	1,695	1,000	1,000	1,000	1,000	1,000	1,000	1,000	500	0
Cum Total Cost:	1,695	2,695	3,695	4,695	5,695	6,695	7,695	8,695	9,195	9,195

Resource: PRJMGR **PROJECT MANAGER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,452.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	858.0	0.0	0.0
Cum Hours:	1,452.0	3,199.0	4,946.0	6,693.0	8,440.0	10,187.0	11,934.0	12,792.0	12,792.0	12,792.0
Yr Total Cost:	129,460	163,953	173,659	183,897	194,799	208,121	225,620	116,793	0	0
Cum Total Cost:	129,460	293,413	467,071	650,969	845,768	1,053,889	1,279,509	1,396,302	1,396,302	1,396,302

INCLUDES ESCALATION COSTS

09/07/2001
10:48 AM

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

PBS: OHFN11
WBS: 1.1.M.B
CTRL ACCT: MMMB
CHARGE NO: MMMB1
COMMENT NO: R1-F11-008

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: PROMGR **PROGRAM MGR** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,452.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0
Yr Total Cost:	136,503	0	0	0	0	0	0	0	0	0
Cum Total Cost:	136,503	136,503	136,503	136,503	136,503	136,503	136,503	136,503	136,503	136,503

Resource: QACENG **QA ENGINEER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	88.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3
Yr Total Cost:	4,058	0	0	0	0	0	0	0	0	0
Cum Total Cost:	4,058	4,058	4,058	4,058	4,058	4,058	4,058	4,058	4,058	4,058

Resource: TPSREP **TECH/PROG SUPT REP** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,452.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0
Yr Total Cost:	75,446	0	0	0	0	0	0	0	0	0
Cum Total Cost:	75,446	75,446	75,446	75,446	75,446	75,446	75,446	75,446	75,446	75,446

Resource: WSTENG **WASTE ENGINEER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	20,463.4	33,193.0	29,699.0	35,407.5	40,181.0	29,483.5	22,643.0	11,480.5	3,157.0	0.0
Cum Hours:	20,463.4	53,656.4	83,355.4	118,762.9	158,943.9	188,427.4	211,070.4	222,550.9	225,707.9	225,707.9
Yr Total Cost:	1,044,247	1,782,901	1,689,665	2,133,209	2,564,305	2,010,286	1,673,686	894,429	273,327	0
Cum Total Cost:	1,044,247	2,827,148	4,516,813	6,650,022	9,214,328	11,224,613	12,898,300	13,792,728	14,066,055	14,066,055

INCLUDES ESCALATION COSTS

09/07/2001
10:48 AM

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

PBS: OHFN11
WBS: 1.1.M.B
CTRL ACCT: MMMB
CHARGE NO: MMMB1
COMMENT NO: R1-F11-008

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: WSTMGR **WASTE ENGINEER MGR** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	5,808.0	4,542.2	4,277.6	3,494.0	3,494.0	3,494.0	1,747.0	0.0	0.0	0.0
Cum Hours:	5,808.0	10,350.2	14,627.8	18,121.8	21,615.8	25,109.8	26,856.8	26,856.8	26,856.8	26,856.8
Yr Total Cost:	319,556	263,052	262,394	226,964	240,418	256,860	139,228	0	0	0
Cum Total Cost:	319,556	582,608	845,002	1,071,966	1,312,384	1,569,244	1,708,472	1,708,472	1,708,472	1,708,472

GRAND TOTALS:

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	37,830.5	43,849.7	40,091.1	43,269.0	46,706.5	35,322.6	26,137.0	12,338.5	3,157.0	0.0
Cum Hours:	37,830.5	81,680.2	121,771.3	165,040.3	211,746.8	247,069.4	273,206.4	285,544.9	288,701.9	288,701.9
Yr Total Cost:	1,979,910	2,374,441	2,299,578	2,647,835	3,056,290	2,501,359	2,045,535	1,018,221	278,327	0
Cum Total Cost:	1,979,910	4,354,351	6,653,929	9,301,764	12,358,053	14,859,412	16,904,947	17,923,168	18,201,496	18,201,496

CAM _____ CONTROL TEAM _____

INCLUDES ESCALATION COSTS

MMMB2

SHIPPING/TRAFFIC/CONTAINER MGT

09/07/2001
10:45 AM

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

PBS: OHFN11
WBS: 1.1.M.B
CTRL ACCT: MMMB
CHARGE NO: MMMB2
COMMENT NO: R1-F11-008

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: BUYCON **BUYER/CONTRACTS ADMN** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	726.0	0.0	0.0	0.0	0.0	95.2	349.4	349.4	349.4	0.0
Cum Hours:	726.0	726.0	726.0	726.0	726.0	821.2	1,170.6	1,520.0	1,869.4	1,869.4
Yr Total Cost:	30,419	0	0	0	0	5,330	21,206	22,351	24,838	0
Cum Total Cost:	30,419	30,419	30,419	30,419	30,419	35,749	56,955	79,306	104,144	104,144

Resource: CLERKS **CLERKS** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	2,323.2	1,747.0	1,747.0	1,747.0	1,284.5	873.5	414.5	0.0	0.0	0.0
Cum Hours:	2,323.2	4,070.2	5,817.2	7,564.2	8,848.7	9,722.2	10,136.7	10,136.7	10,136.7	10,136.7
Yr Total Cost:	55,501	43,930	46,531	49,274	38,377	27,883	14,344	0	0	0
Cum Total Cost:	55,501	99,432	145,963	195,237	233,614	261,497	275,840	275,840	275,840	275,840

Resource: DRFCAD **DRAFTER/CAD OPERATOR** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	284.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	284.5	284.5	284.5	284.5	284.5	284.5	284.5	284.5	284.5	284.5
Yr Total Cost:	8,874	0	0	0	0	0	0	0	0	0
Cum Total Cost:	8,874	8,874	8,874	8,874	8,874	8,874	8,874	8,874	8,874	8,874

Resource: ENGINR **ENGINEER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,452.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	1,271.0	0.0	0.0	0.0
Cum Hours:	1,452.0	3,199.0	4,946.0	6,693.0	8,440.0	10,187.0	11,458.0	11,458.0	11,458.0	11,458.0
Yr Total Cost:	99,840	126,440	133,925	141,821	150,228	160,503	126,589	0	0	0
Cum Total Cost:	99,840	226,279	360,204	502,026	652,254	812,757	939,346	939,346	939,346	939,346

INCLUDES ESCALATION COSTS

09/07/2001
10:45 AM

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

PBS: OHFN11
WBS: 1.1.M.B
CTRL ACCT: MMMB
CHARGE NO: MMMB2
COMMENT NO: R1-F11-008

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: MAT300 **MATERIAL OBJCLASS300** **EOC:** MATERIAL
Res Dept: 951 **Overtime:** **Class:** MAT

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Units:	94,873.0	70,107.1	68,264.0	66,404.7	64,596.0	62,775.5	40,670.9	39,524.6	7,202.0	0.0
Cum Units:	94,873.0	164,980.1	233,244.1	299,648.7	364,244.7	427,020.2	467,691.0	507,215.7	514,417.7	514,417.7
Yr Total Cost:	94,873	72,000	72,000	72,000	72,000	72,000	48,000	48,000	9,000	0
Cum Total Cost:	94,873	166,873	238,873	310,873	382,873	454,873	502,873	550,873	559,873	559,873

Resource: MPCREP **MATL PROP CTRL REP** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,508.9	1,747.0	1,747.0	1,747.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,508.9	3,255.9	5,002.9	6,749.9	6,749.9	6,749.9	6,749.9	6,749.9	6,749.9	6,749.9
Yr Total Cost:	48,768	59,432	62,950	66,662	0	0	0	0	0	0
Cum Total Cost:	48,768	108,200	171,150	237,812	237,812	237,812	237,812	237,812	237,812	237,812

Resource: MVOOPR **MOTOR VEHICLE OPER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	290.4	349.4	349.4	349.4	174.7	174.7	174.7	174.7	174.7	0.0
Cum Hours:	290.4	639.8	989.2	1,338.6	1,513.3	1,688.0	1,862.7	2,037.4	2,212.1	2,212.1
Yr Total Cost:	8,381	10,614	11,242	11,905	6,305	6,737	7,303	7,697	8,554	0
Cum Total Cost:	8,381	18,995	30,237	42,142	48,448	55,184	62,487	70,185	78,739	78,739

Resource: ODCTRVL **TRAVEL RESOURCE** **EOC:** ODC
Res Dept: 951 **Overtime:** **Class:** ODC

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Units:	31,592.0	35,053.6	34,132.0	33,202.3	32,298.0	31,387.7	30,503.1	9,881.2	7,202.0	0.0
Cum Units:	31,592.0	66,645.6	100,777.5	133,979.9	166,277.9	197,665.6	228,168.7	238,049.9	245,251.9	245,251.9
Yr Total Cost:	31,592	36,000	36,000	36,000	36,000	36,000	36,000	12,000	9,000	0
Cum Total Cost:	31,592	67,592	103,592	139,592	175,592	211,592	247,592	259,592	268,592	268,592

INCLUDES ESCALATION COSTS

09/07/2001
10:45 AM

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

PBS: OHFN11
WBS: 1.1.M.B
CTRL ACCT: MMMB
CHARGE NO: MMMB2
COMMENT NO: R1-F11-008

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: PJSREP **PROJECT SUPPORT REP** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	3,933.3	3,494.0	2,620.5	2,620.5	1,284.5	873.5	873.5	0.0	0.0	0.0
Cum Hours:	3,933.3	7,427.3	10,047.8	12,668.3	13,952.8	14,826.3	15,699.8	15,699.8	15,699.8	15,699.8
Yr Total Cost:	160,361	149,940	119,113	126,136	65,494	47,584	51,584	0	0	0
Cum Total Cost:	160,361	310,301	429,414	555,549	621,043	668,626	720,211	720,211	720,211	720,211

Resource: QACENG **QA ENGINEER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	726.0	873.5	873.5	873.5	781.0	524.1	248.7	0.0	0.0	0.0
Cum Hours:	726.0	1,599.5	2,473.0	3,346.5	4,127.5	4,651.6	4,900.3	4,900.3	4,900.3	4,900.3
Yr Total Cost:	33,367	42,257	44,759	47,398	44,891	32,185	16,557	0	0	0
Cum Total Cost:	33,367	75,624	120,382	167,780	212,670	244,855	261,412	261,412	261,412	261,412

Resource: S&HENG **SAFETY ENGINEER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	44.1	43.6	44.3	44.3	43.5	0.0	0.0	0.0	0.0	0.0
Cum Hours:	44.1	87.7	132.0	176.3	219.8	219.8	219.8	219.8	219.8	219.8
Yr Total Cost:	2,192	2,281	2,455	2,600	2,704	0	0	0	0	0
Cum Total Cost:	2,192	4,474	6,929	9,529	12,233	12,233	12,233	12,233	12,233	12,233

Resource: SERVSUB **SUBS** **EOC:** SUBCONTRACTORS
Res Dept: 951 **Overtime:** **Class:** SUB

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Units:	5,702.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Units:	5,702.0	5,702.0	5,702.0	5,702.0	5,702.0	5,702.0	5,702.0	5,702.0	5,702.0	5,702.0
Yr Total Cost:	5,702	0	0	0	0	0	0	0	0	0
Cum Total Cost:	5,702	5,702	5,702	5,702	5,702	5,702	5,702	5,702	5,702	5,702

INCLUDES ESCALATION COSTS

09/07/2001
10:45 AM

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

PBS: OHFN11
WBS: 1.1.M.B
CTRL ACCT: MMMB
CHARGE NO: MMMB2
COMMENT NO: R1-F11-008

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: TPSREP TECH/PROG SUPT REP EOC: LABOR
Res Dept: 951 Overtime: Class: SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,452.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0
Yr Total Cost:	75,446	0	0	0	0	0	0	0	0	0
Cum Total Cost:	75,446	75,446	75,446	75,446	75,446	75,446	75,446	75,446	75,446	75,446

Resource: WSTENG WASTE ENGINEER EOC: LABOR
Res Dept: 951 Overtime: Class: SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	4,128.4	3,625.1	3,494.0	3,536.1	1,747.0	1,070.5	873.5	1,747.0	653.0	0.0
Cum Hours:	4,128.4	7,753.5	11,247.5	14,783.6	16,530.6	17,601.1	18,474.6	20,221.6	20,874.6	20,874.6
Yr Total Cost:	210,672	194,716	198,784	213,041	111,492	72,990	64,566	136,106	56,536	0
Cum Total Cost:	210,672	405,388	604,172	817,213	928,704	1,001,695	1,066,260	1,202,367	1,258,902	1,258,902

Resource: WSTMGR WASTE ENGINEER MGR EOC: LABOR
Res Dept: 951 Overtime: Class: SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,452.0	1,747.0	1,747.0	1,747.0	1,747.0	873.5	0.0	0.0	0.0	0.0
Cum Hours:	1,452.0	3,199.0	4,946.0	6,693.0	8,440.0	9,313.5	9,313.5	9,313.5	9,313.5	9,313.5
Yr Total Cost:	79,889	101,174	107,163	113,482	120,209	64,215	0	0	0	0
Cum Total Cost:	79,889	181,063	288,226	401,708	521,917	586,132	586,132	586,132	586,132	586,132

GRAND TOTALS:

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	18,320.8	15,373.6	14,369.7	14,411.8	8,809.2	6,232.0	4,205.3	2,271.1	1,177.1	0.0
Cum Hours:	18,320.8	33,694.4	48,064.1	62,475.9	71,285.1	77,517.1	81,722.4	83,993.5	85,170.6	85,170.6
Yr Total Cost:	945,876	838,784	834,922	880,318	647,700	525,425	386,148	226,155	107,928	0
Cum Total Cost:	945,876	1,784,660	2,619,583	3,499,901	4,147,601	4,673,026	5,059,174	5,285,328	5,393,256	5,393,256

CAM _____ CONTROL TEAM _____

INCLUDES ESCALATION COSTS

MMMB3

WAREHOUSING & SURVEILLANCE

09/07/2001
10:56 AM

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

PBS: OHFN11
WBS: 1.1.M.B
CTRL ACCT: MMMB
CHARGE NO: MMMB3
COMMENT NO: R1-F11-008

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: BUYCON **BUYER/CONTRACTS ADMN** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	145.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2
Yr Total Cost:	6,084	0	0	0	0	0	0	0	0	0
Cum Total Cost:	6,084	6,084	6,084	6,084	6,084	6,084	6,084	6,084	6,084	6,084

Resource: CLERKS **CLERKS** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	145.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2
Yr Total Cost:	3,469	0	0	0	0	0	0	0	0	0
Cum Total Cost:	3,469	3,469	3,469	3,469	3,469	3,469	3,469	3,469	3,469	3,469

Resource: HAZWAT **HAZWAT** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	19,166.4	27,952.0	22,913.0	9,577.0	6,988.0	5,241.0	0.0	0.0	0.0	0.0
Cum Hours:	19,166.4	47,118.4	70,031.4	79,608.4	86,596.4	91,837.4	91,837.4	91,837.4	91,837.4	91,837.4
Yr Total Cost:	551,801	847,051	735,456	325,525	251,604	201,609	0	0	0	0
Cum Total Cost:	551,801	1,398,852	2,134,308	2,459,833	2,711,437	2,913,045	2,913,045	2,913,045	2,913,045	2,913,045

Resource: HEOOPR **HEAVY EQUIP OPERATOR** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,306.8	1,572.3	1,572.3	1,048.2	698.8	349.4	0.0	0.0	0.0	0.0
Cum Hours:	1,306.8	2,879.1	4,451.4	5,499.6	6,198.4	6,547.8	6,547.8	6,547.8	6,547.8	6,547.8
Yr Total Cost:	41,112	52,065	55,148	38,933	27,494	14,687	0	0	0	0
Cum Total Cost:	41,112	93,177	148,325	187,258	214,752	229,439	229,439	229,439	229,439	229,439

INCLUDES ESCALATION COSTS

09/07/2001
10:56 AM

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

PBS: OHFN11
WBS: 1.1.M.B
CTRL ACCT: MMMB
CHARGE NO: MMMB3
COMMENT NO: R1-F11-008

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: INHTEC **INDUST HYGIENIST TEC** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	2,462.5	1,747.0	1,747.0	1,048.2	524.1	349.4	0.0	0.0	0.0	0.0
Cum Hours:	2,462.5	4,209.5	5,956.5	7,004.7	7,528.8	7,878.2	7,878.2	7,878.2	7,878.2	7,878.2
Yr Total Cost:	92,812	69,307	73,409	46,643	24,704	17,596	0	0	0	0
Cum Total Cost:	92,812	162,118	235,528	282,170	306,874	324,470	324,470	324,470	324,470	324,470

Resource: INRREP **INFO RECORDS REP** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,452.0	1,222.9	1,222.9	1,222.9	873.5	825.9	0.0	0.0	0.0	0.0
Cum Hours:	1,452.0	2,674.9	3,897.8	5,120.7	5,994.2	6,820.1	6,820.1	6,820.1	6,820.1	6,820.1
Yr Total Cost:	43,095	38,204	40,466	42,852	32,423	32,753	0	0	0	0
Cum Total Cost:	43,095	81,299	121,765	164,617	197,040	229,792	229,792	229,792	229,792	229,792

Resource: MAT300 **MATERIAL OBJCLASS300** **EOC:** MATERIAL
Res Dept: 951 **Overtime:** **Class:** MAT

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Units:	141,662.0	146,056.5	142,216.6	138,343.0	107,659.9	83,700.6	0.0	0.0	0.0	0.0
Cum Units:	141,662.0	287,718.5	429,935.1	568,278.1	675,938.1	759,638.7	759,638.7	759,638.7	759,638.7	759,638.7
Yr Total Cost:	141,662	150,000	150,000	150,000	120,000	96,000	0	0	0	0
Cum Total Cost:	141,662	291,662	441,662	591,662	711,662	807,662	807,662	807,662	807,662	807,662

Resource: MPCREP **MATL PROP CTRL REP** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	726.0	873.5	696.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	726.0	1,599.5	2,296.4	2,296.4	2,296.4	2,296.4	2,296.4	2,296.4	2,296.4	2,296.4
Yr Total Cost:	23,464	29,716	25,112	0	0	0	0	0	0	0
Cum Total Cost:	23,464	53,180	78,292	78,292	78,292	78,292	78,292	78,292	78,292	78,292

INCLUDES ESCALATION COSTS

09/07/2001
10:56 AM

PBS: OHFN11
WBS: 1.1.M.B
CTRL ACCT: MMMB
CHARGE NO: MMMB3
COMMENT NO: R1-F11-008

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: MVOOPR **MOTOR VEHICLE OPER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	6,263.2	6,988.0	6,988.0	2,620.5	1,747.0	1,747.0	0.0	0.0	0.0	0.0
Cum Hours:	6,263.2	13,251.2	20,239.2	22,859.7	24,606.7	26,353.7	26,353.7	26,353.7	26,353.7	26,353.7
Yr Total Cost:	180,756	212,278	224,844	89,288	63,054	67,366	0	0	0	0
Cum Total Cost:	180,756	393,034	617,878	707,166	770,220	837,586	837,586	837,586	837,586	837,586

Resource: PJSMGR **PROJECT SUPPORT MGR** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	5,529.4	6,988.0	5,894.0	2,620.5	1,747.0	1,271.0	0.0	0.0	0.0	0.0
Cum Hours:	5,529.4	12,517.4	18,411.4	21,031.9	22,778.9	24,049.9	24,049.9	24,049.9	24,049.9	24,049.9
Yr Total Cost:	252,804	336,290	300,434	141,450	99,890	77,643	0	0	0	0
Cum Total Cost:	252,804	589,094	889,529	1,030,979	1,130,869	1,208,512	1,208,512	1,208,512	1,208,512	1,208,512

Resource: PROWHA **PROF WAREHOUSE ATTEN** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	543.0	1,747.0	1,747.0	873.5	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	543.0	2,290.0	4,037.0	4,910.5	4,910.5	4,910.5	4,910.5	4,910.5	4,910.5	4,910.5
Yr Total Cost:	14,428	48,858	51,751	27,401	0	0	0	0	0	0
Cum Total Cost:	14,428	63,286	115,037	142,438	142,438	142,438	142,438	142,438	142,438	142,438

Resource: QACENG **QA ENGINEER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,452.0	1,747.0	1,747.0	873.5	873.5	873.5	0.0	0.0	0.0	0.0
Cum Hours:	1,452.0	3,199.0	4,946.0	5,819.5	6,693.0	7,566.5	7,566.5	7,566.5	7,566.5	7,566.5
Yr Total Cost:	66,734	84,514	89,517	47,398	50,207	53,641	0	0	0	0
Cum Total Cost:	66,734	151,248	240,765	288,162	338,370	392,011	392,011	392,011	392,011	392,011

INCLUDES ESCALATION COSTS

09/07/2001
10:56 AM

PBS: OHFN11
WBS: 1.1.M.B
CTRL ACCT: MMMB
CHARGE NO: MMMB3
COMMENT NO: R1-F11-008

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: RADENG **RAD ENGINEER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	145.2	174.7	174.7	174.7	174.7	0.0	0.0	0.0	0.0	0.0
Cum Hours:	145.2	319.9	494.6	669.3	844.0	844.0	844.0	844.0	844.0	844.0
Yr Total Cost:	6,853	8,679	9,193	9,735	10,312	0	0	0	0	0
Cum Total Cost:	6,853	15,533	24,726	34,461	44,774	44,774	44,774	44,774	44,774	44,774

Resource: RADMGR **RAD SUPERVISOR/MGR** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	0.0	873.5	873.5	349.4	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	0.0	873.5	1,747.0	2,096.4	2,096.4	2,096.4	2,096.4	2,096.4	2,096.4	2,096.4
Yr Total Cost:	0	54,991	58,246	24,672	0	0	0	0	0	0
Cum Total Cost:	0	54,991	113,238	137,910	137,910	137,910	137,910	137,910	137,910	137,910

Resource: RADTEC **RAD TECH** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	4,356.0	5,241.0	3,494.0	2,445.8	1,901.8	1,747.0	0.0	0.0	0.0	0.0
Cum Hours:	4,356.0	9,597.0	13,091.0	15,536.8	17,438.6	19,185.6	19,185.6	19,185.6	19,185.6	19,185.6
Yr Total Cost:	148,452	188,005	132,756	98,409	81,057	79,551	0	0	0	0
Cum Total Cost:	148,452	336,457	469,214	567,622	648,679	728,230	728,230	728,230	728,230	728,230

Resource: S&HENG **SAFETY ENGINEER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	322.0	351.5	351.1	88.2	47.7	47.6	0.0	0.0	0.0	0.0
Cum Hours:	322.0	673.5	1,024.6	1,112.8	1,160.5	1,208.1	1,208.1	1,208.1	1,208.1	1,208.1
Yr Total Cost:	16,007	18,392	19,458	5,176	2,965	3,162	0	0	0	0
Cum Total Cost:	16,007	34,398	53,857	59,033	61,999	65,160	65,160	65,160	65,160	65,160

INCLUDES ESCALATION COSTS

09/07/2001
10:56 AM

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

PBS: OHFN11
WBS: 1.1.M.B
CTRL ACCT: MMMB
CHARGE NO: MMMB3
COMMENT NO: R1-F11-008

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: SERVSUB **SUBS** **EOC:** SUBCONTRACTORS
Res Dept: 951 **Overtime:** **Class:** SUB

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Units:	0.0	5,024.3	4,892.3	4,759.0	4,629.4	4,498.9	0.0	0.0	0.0	0.0
Cum Units:	0.0	5,024.3	9,916.6	14,675.6	19,305.0	23,803.9	23,803.9	23,803.9	23,803.9	23,803.9
Yr Total Cost:	0	5,160	5,160	5,160	5,160	5,160	0	0	0	0
Cum Total Cost:	0	5,160	10,320	15,480	20,640	25,800	25,800	25,800	25,800	25,800

Resource: TPSREP **TECH/PROG SUPT REP** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	726.0	174.7	174.7	174.7	174.7	127.1	0.0	0.0	0.0	0.0
Cum Hours:	726.0	900.7	1,075.4	1,250.1	1,424.8	1,551.9	1,551.9	1,551.9	1,551.9	1,551.9
Yr Total Cost:	37,723	9,555	10,120	10,717	11,352	8,824	0	0	0	0
Cum Total Cost:	37,723	47,278	57,398	68,115	79,467	88,291	88,291	88,291	88,291	88,291

Resource: WSTENG **WASTE ENGINEER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	7,550.4	5,241.0	5,241.0	3,494.0	1,747.0	698.8	0.0	0.0	0.0	0.0
Cum Hours:	7,550.4	12,791.4	18,032.4	21,526.4	23,273.4	23,972.2	23,972.2	23,972.2	23,972.2	23,972.2
Yr Total Cost:	385,297	281,511	298,176	210,504	111,492	47,647	0	0	0	0
Cum Total Cost:	385,297	666,808	964,984	1,175,488	1,286,980	1,334,626	1,334,626	1,334,626	1,334,626	1,334,626

INCLUDES ESCALATION COSTS

09/07/2001
10:56 AM

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

PBS: OHFN11
WBS: 1.1.M.B
CTRL ACCT: MMMB
CHARGE NO: MMMB3
COMMENT NO: R1-F11-008

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: WSTMGR **WASTE ENGINEER MGR** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,306.8	873.5	873.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,306.8	2,180.3	3,053.8	3,053.8	3,053.8	3,053.8	3,053.8	3,053.8	3,053.8	3,053.8
Yr Total Cost:	71,900	50,587	53,582	0	0	0	0	0	0	0
Cum Total Cost:	71,900	122,487	176,069	176,069	176,069	176,069	176,069	176,069	176,069	176,069

GRAND TOTALS:

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	53,598.1	63,767.6	55,710.6	26,611.1	17,497.8	13,277.7	0.0	0.0	0.0	0.0
Cum Hours:	53,598.1	117,365.7	173,076.3	199,687.4	217,185.2	230,462.9	230,462.9	230,462.9	230,462.9	230,462.9
Yr Total Cost:	2,084,453	2,485,163	2,332,830	1,273,862	891,714	705,638	0	0	0	0
Cum Total Cost:	2,084,453	4,569,616	6,902,446	8,176,308	9,068,022	9,773,659	9,773,659	9,773,659	9,773,659	9,773,659

CAM_____ CONTROL TEAM_____

INCLUDES ESCALATION COSTS

MMMB4

DECONTAMINATION SERVICES

09/07/2001
11:02 AM

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

PBS: OHFN11
WBS: 1.1.M.B
CTRL ACCT: MMMB
CHARGE NO: MMMB4
COMMENT NO: R1-F11-008

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: HAZWAT **HAZWAT** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	13,068.0	8,735.0	6,988.0	6,988.0	5,241.0	3,494.0	0.0	0.0	0.0	0.0
Cum Hours:	13,068.0	21,803.0	28,791.0	35,779.0	41,020.0	44,514.0	44,514.0	44,514.0	44,514.0	44,514.0
Yr Total Cost:	376,228	264,704	224,299	237,524	188,703	134,406	0	0	0	0
Cum Total Cost:	376,228	640,931	865,230	1,102,754	1,291,457	1,425,863	1,425,863	1,425,863	1,425,863	1,425,863

Resource: INHTEC **INDUST HYGIENIST TEC** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	145.2	174.7	174.7	174.7	174.7	174.7	0.0	0.0	0.0	0.0
Cum Hours:	145.2	319.9	494.6	669.3	844.0	1,018.7	1,018.7	1,018.7	1,018.7	1,018.7
Yr Total Cost:	5,473	6,931	7,341	7,774	8,235	8,798	0	0	0	0
Cum Total Cost:	5,473	12,403	19,744	27,518	35,753	44,550	44,550	44,550	44,550	44,550

Resource: MAT300 **MATERIAL OBJCLASS300** **EOC:** MATERIAL
Res Dept: 951 **Overtime:** **Class:** MAT

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Units:	2,500.0	5,842.3	5,688.7	5,533.7	5,383.0	5,231.3	0.0	0.0	0.0	0.0
Cum Units:	2,500.0	8,342.3	14,030.9	19,564.6	24,947.6	30,178.9	30,178.9	30,178.9	30,178.9	30,178.9
Yr Total Cost:	2,500	6,000	6,000	6,000	6,000	6,000	0	0	0	0
Cum Total Cost:	2,500	8,500	14,500	20,500	26,500	32,500	32,500	32,500	32,500	32,500

Resource: MVOOPR **MOTOR VEHICLE OPER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,452.0	1,747.0	1,747.0	1,747.0	1,747.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,452.0	3,199.0	4,946.0	6,693.0	8,440.0	8,440.0	8,440.0	8,440.0	8,440.0	8,440.0
Yr Total Cost:	41,905	53,069	56,211	59,525	63,054	0	0	0	0	0
Cum Total Cost:	41,905	94,974	151,185	210,711	273,765	273,765	273,765	273,765	273,765	273,765

INCLUDES ESCALATION COSTS

09/07/2001
11:02 AM

PBS: OHFN11
WBS: 1.1.M.B
CTRL ACCT: MMMB
CHARGE NO: MMMB4
COMMENT NO: R1-F11-008

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: RADENG **RAD ENGINEER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	145.2	219.5	174.7	174.7	174.7	174.7	0.0	0.0	0.0	0.0
Cum Hours:	145.2	364.7	539.4	714.1	888.8	1,063.5	1,063.5	1,063.5	1,063.5	1,063.5
Yr Total Cost:	6,853	10,905	9,193	9,735	10,312	11,018	0	0	0	0
Cum Total Cost:	6,853	17,759	26,952	36,687	46,999	58,017	58,017	58,017	58,017	58,017

Resource: RADTEC **RAD TECH** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	726.0	873.5	873.5	873.5	873.5	873.5	0.0	0.0	0.0	0.0
Cum Hours:	726.0	1,599.5	2,473.0	3,346.5	4,220.0	5,093.5	5,093.5	5,093.5	5,093.5	5,093.5
Yr Total Cost:	24,742	31,334	33,189	35,146	37,229	39,776	0	0	0	0
Cum Total Cost:	24,742	56,076	89,265	124,411	161,641	201,416	201,416	201,416	201,416	201,416

Resource: TPSMGR **TECH/PROG SUPT MGR** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,452.0	1,747.0	873.5	873.5	873.5	873.5	0.0	0.0	0.0	0.0
Cum Hours:	1,452.0	3,199.0	4,072.5	4,946.0	5,819.5	6,693.0	6,693.0	6,693.0	6,693.0	6,693.0
Yr Total Cost:	90,663	114,818	60,808	64,393	68,210	72,875	0	0	0	0
Cum Total Cost:	90,663	205,481	266,289	330,682	398,892	471,767	471,767	471,767	471,767	471,767

INCLUDES ESCALATION COSTS

09/07/2001
11:02 AM

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

PBS: OHFN11
WBS: 1.1.M.B
CTRL ACCT: MMMB
CHARGE NO: MMMB4
COMMENT NO: R1-F11-008

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: TPSREP **TECH/PROG SUPT REP** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	145.2	174.7	174.7	174.7	174.7	174.7	0.0	0.0	0.0	0.0
Cum Hours:	145.2	319.9	494.6	669.3	844.0	1,018.7	1,018.7	1,018.7	1,018.7	1,018.7
Yr Total Cost:	7,545	9,555	10,120	10,717	11,352	12,129	0	0	0	0
Cum Total Cost:	7,545	17,099	27,220	37,937	49,289	61,418	61,418	61,418	61,418	61,418

GRAND TOTALS:

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	17,133.6	13,671.4	11,006.1	11,006.1	9,259.1	5,765.1	0.0	0.0	0.0	0.0
Cum Hours:	17,133.6	30,805.0	41,811.1	52,817.2	62,076.3	67,841.4	67,841.4	67,841.4	67,841.4	67,841.4
Yr Total Cost:	555,908	497,316	407,162	430,814	393,096	285,000	0	0	0	0
Cum Total Cost:	555,908	1,053,224	1,460,385	1,891,200	2,284,296	2,569,296	2,569,296	2,569,296	2,569,296	2,569,296

CAM _____ CONTROL TEAM _____

INCLUDES ESCALATION COSTS

SECTION 2

5.0 RISK PLAN

Risk/Opportunity Identification and Analysis Form

Project: WM Operations Sitewide Services		PBS Number: 11			Total Baseline Dollars (Minimum Case):			$35,937,708		
Evaluator: Jim Buckley	Date: 05/02/01	WBS Number: 1.1.M.B								
CAM:	Date:	Control Account Number: MMMB								
Project Task	Risk and/or Opportunity	Potential Impact	Internal Or External Driver	Impact Cost (Maximum Case)	Risk Impact Level	Risk Probability %	Risk Probability Level	Probable Cost (Likeliest Case)	Risk Critical Value	Risk Handling Strategy
MMMB1										
Waste Acceptance and Characterization (MMMB1)	Inventory mis-characterized because each container isn't opened before shipment	Shut-down of off-site shipment for up to 18 months and cost of corrective actions	Internal	$6,000,000.00	5	10	2	$600,000.00	8	Reduce.
Waste Acceptance and Characterization (MMMB1)	Leaking container or compatibility issue	Shut-down of off-site shipment for up to 18 months and cost of corrective actions	Internal	$6,000,000.00	5	10	2	$600,000.00	8	Reduce.
Hardware/Software Problem with SWIFTS (MMMB1)	Inventory control and/or shipment delay	Hold-up of shipments for several weeks while problem is being corrected	Internal	$100,000.00	2	10	2	$10,000.00	2	Accept.
MMMB2										
Containers (MMMB2)	Fernald-caused failure of a container on the public highways.	Shutdown of off-site shipments for up to 18 months and cost of corrective actions.	Internal	$6,000,000.00	5	10	1	$600,000.00	5	Reduce. Increase QA/QC.
Transportation (MMMB2)	Accident involving Fernald shipment	Response and recovery costs	Internal	$1,000,000.00	3	10	2	$100,000.00	3	
Shipping (MMMB2)	Making shipments that do not comply with DOT regulations.	Adverse publicity and fine by DOT.	Internal	$270,000.00	2	10	1	$27,000.00	1	Accept.
MMMB3										
Warehousing (MMMB3)	Scheduling delay due to project delays in shipment/disposal	Increased need for warehousing oversight and operations/increased project cost	Internal	$2,000,000.00	3	50	5	$1,000,000.00	6	Accept.
Warehousing (MMMB3)	Relocation of containers based upon DOE 435.1	Relocation costs increase project costs	Internal	$800,000.00	2	20	2	$160,000.00	2	Accept.
Warehousing (MMMB3)	Changes required by Fernald Storage WAC	Additional project costs	Internal	$700,000.00	2	20	2	$140,000.00	2	Accept.
Warehousing (MMMB3)	Insufficient FAT&LC operators for project activities	Delay in schedule/increased project cost	Internal	$350,000.00	3	60	4	$210,000.00	5	Reduce. Coordinate through Manpower Planning.
Warehousing (MMMB3)	Recoat flooring in TSS6	Increased baseline costs beyond normal maintenance and costs to relocate waste	Internal	$250,000.00	2	5	1	$12,500.00	1	Accept.

Risk/Opportunity Identification and Analysis Form

Project: WM Operations Sitewide Services		PBS Number: 11			Total Baseline Dollars (Minimum Case):			$35,937,708		
Evaluator: Jim Buckley	Date: 05/02/01	WBS Number: 1.1.M.B								
CAM:	Date:	Control Account Number: MMMB								
Project Task	Risk and/or Opportunity	Potential Impact	Internal Or External Driver	Impact Cost (Maximum Case)	Risk Impact Level	Risk Probability %	Risk Probability Level	Probable Cost (Likeliest Case)	Risk Critical Value	Risk Handling Strategy
Warehousing (MMMB3)	Recoat Plant 1 Pad surface	Increased baseline costs beyond normal maintenance and costs to relocate waste	Internal	$1,000,000.00	3	20	2	$200,000.00	2	Accept.
			Total:	$24,470,000.00			Total:	$3,659,500.00		
MMMB1										
Waste Acceptance Criteria (WAC) Change (MMMB1)	More stringent WAC implemented by Treatment/Storage/Disposal (TSD) Facility	Sampling or additional documentation for characterization process	External	$200,000.00	2	10	2	$20,000.00	2	
MMMB2										
Containers (MMMB2)	Requirement to use a new burial site with different waste acceptance criteria.	Selection of new containers for waste that meet the new criteria and repackaging existing containerized waste.	External	$1,000,000.00	2	10	2	$100,000.00	2	
Transportation (MMMB2)	Change in DOT regulations increases requirements.	Selection of new containers for waste that meet the new criteria and repackaging existing containerized waste or additional effort involved with preparing shipping documentation.	External	$1,000,000.00	2	10	2	$100,000.00	2	
Transportation (MMMB2)	Increased fuel or transportation costs.	Additional funding is required to transport materials for final disposition.	External	$150,000.00	2	80	5	$120,000.00	3	
Transportation (MMMB2)	Existing container vendors or carriers are not available.	Additional funding is required to obtain contracts for containers or to transport materials for final disposition.	External	$200,000.00	2	10	2	$20,000.00	2	
Warehousing (MMMB3)	Tension support structures are determined inappropriate for existing storage array	Relocation costs increase project costs/retrofit or new construction costs for appropriate storage	External	$8,000,000.00	4	20	2	$1,600,000.00	5	

WBS DICTIONARY
CONTROL ACCOUNT/CHARGE NUMBER

U.S. DEPARTMENT OF ENERGY
WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION

1. PROJECT TITLE	2. DATE OF CONTRACT	
FEMP (DEFENSE)	12/01/2000	
3. IDENTIFICATION NUMBER		4. INDEX LINE NO.
DE-AC24-01OH20115		81
5. WBS ELEMENT CODE	6. WBS ELEMENT TITLE	
1.1.M.C	TRASH DISPOSITION	
7. APPROVED CP NO.		8. DATE OF CHANGES
ORIGINAL SCOPE PER CP# FY01-0115-0011-00		12/01/2000
9. SYSTEM DESIGN DESCRIPTION	10. BUDGET AND REPORTING NUMBER	
CERCLA/ACA	EW05H3110	

11. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Materials
Subcontracts
ODC's

b. TECHNICAL CONTENT:

This element provides for the planning, administration/management, warehousing, surveillance, packaging, preparation, consolidation, and transfer/shipment of low level waste dumpster trash, debris, yard scrap and roll-off boxes (ROBs) to the On-Site Disposal Facility (OSDF) and/or off-site locations. These materials are to be prepared in accordance with OSDF and/or off-site location specifications and applicable transportation guidelines. Low level waste trash, debris, yard scrap, and ROBs will be managed in a manner that is consistent with the requirements of the FEMP S/RID and DOE Order 435.1. This work package covers current and future-generation contaminated dumpster trash and only debris/non-compactible waste packaged prior to December 1, 2000. This work package includes only yard scrap/excess containers (estimated 74 ROBs disposition volume), rolling stock (estimated 253 ROBs disposal volume) and site ROBs (167) inventoried as of February 28, 2001.

c. SCOPE OF WORK:

This element is organized into three work packages (charge numbers): Contaminated Dumpster Trash, Debris/Noncompactible Trash, and Yard Scrap/Rolling Stock/ Excess Containers.

Contaminated Dumpster Trash (MMMC1) provides for the collection, sorting, processing, and disposition of contaminated dumpster trash from controlled areas through closure. This waste stream consists of contaminated compactible type waste (paper, packaging, PPE, etc) generated from projects and activities in

U.S. DEPARTMENT OF ENERGY
WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION

1. PROJECT TITLE	2. DATE OF CONTRACT	
FEMP (DEFENSE)	12/01/2000	
3. IDENTIFICATION NUMBER		4. INDEX LINE NO.
DE-AC24-01OH20115		81
5. WBS ELEMENT CODE	6. WBS ELEMENT TITLE	
1.1.M.C	TRASH DISPOSITION	
7. APPROVED CP NO.		8. DATE OF CHANGES
ORIGINAL SCOPE PER CP# FY01-0115-0011-00		12/01/2000
9. SYSTEM DESIGN DESCRIPTION	10. BUDGET AND REPORTING NUMBER	
CERCLA/ACA	EW05H3110	

11. ELEMENT TASK DESCRIPTION

potentially contaminated environments around the FEMP. This task also provides for the processing of all prohibited items and/or wastes requiring treatment, to achieve full disposition of the forecasted wastes of this waste category.

Debris/Non-Compactible Trash (MMMC2) provides for the sorting, packaging and shipment or transfer of packaged debris/non-compactible trash generated prior to December 1, 2000, consisting of ISOs, metal boxes, and drums. This task also provides for the processing of all prohibited items and/or wastes requiring treatment, to achieve full disposition of the inventories baselined in this waste category.

Yard Scrap/Rolling Stock/Excess Containers (MMMC3) provides for the collection and processing (including removal of glass, fluids/non-conforming items and size reduction) of inventoried contaminated yard scrap, rolling stock, and excess containers and equipment. The primary wastes will be processed for OSDF disposal in a controlled area, under a Task Order, RCRA and/or prohibited items removed, size-reduced, loaded into ROBs, and moved to a transfer area for disposal in OSDF. Secondary wastes (not meeting the OSDF WAC) will be processed for shipment to NTS or combined with other similar waste streams in the Closure Baseline to receive treatment as required (under this task charge number) followed by off-site disposal.

This work package also provides for disposition of the existing 167 roll off box fleet. As the fleet size required to support the FEMP Closure gradually declines as the project progresses, excess ROBs will be inspected to verify they can be excessed to other DOE/Federal Facilities. Containers processed to another Federal site will be done under the conditions that the gaining site will pay for all gross decontamination, packaging as required, loading and shipping costs.

WORK SCOPE DEFINITION
(Control Account)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 1

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.M.C	TRASH DISPOSITION

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	TODD CLARK - EXT. 4113	J. BUCKLEY - EXT. 3232

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3110	WASTE MANAGEMENT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/2000 - 09/2008

12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ONE LINE)
MMMC	LOW LEVEL WASTE TRASH & DEBRIS

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Material
Subcontracts
ODCs

b. TECHNICAL CONTENT:

This control account provides for the planning, administration/management, warehousing, surveillance, packaging, preparation, consolidation, and transfer/shipment of low level waste dumpster trash, debris, yard scrap and roll-off boxes (ROBs) to the On-Site Disposal Facility (OSDF) and/or off-site locations. These materials are to be prepared in accordance with OSDF and/or off-site location specifications and applicable transportation guidelines. Low level waste trash, debris, yard scrap, and ROBs will be managed in a manner that is consistent with the requirements of the FEMP S/RID and DOE Order 435.1. This work package covers current and future-generation contaminated dumpster trash and only debris/non-compactible waste packaged prior to December 1, 2000. This work package includes only yard scrap/excess containers (estimated 74 ROBs disposition volume), rolling stock (estimated 253 ROBs disposal volume) and site ROBs (167) inventoried as of February 28, 2001.

c. SCOPE OF WORK:

This control account is organized into three work packages (charge numbers): Contaminated Dumpster Trash, Debris/Noncompactible Trash, and Yard Scrap/Rolling Stock/ Excess Containers.

Contaminated Dumpster Trash (MMMC1) provides for the collection, sorting,

Project Manager	Control Account Manager	Control Team Manager

WORK SCOPE DEFINITION
(Control Account)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 2

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.M.C	TRASH DISPOSITION	
5. PERFORMING DIV/DEPARTMENT CODE	**6. ORIGINATOR NAME/PHONE**	**7. WBS ELEMENT MANAGER**
51	TODD CLARK - EXT. 4113	J. BUCKLEY - EXT. 3232
8. BUDGET AND REPORTING NUMBER	**9. BUDGET TITLE**	
EW05H3110	WASTE MANAGEMENT	

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/2000 - 09/2008

12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ONE LINE)
MMMC	LOW LEVEL WASTE TRASH & DEBRIS

14. ELEMENT TASK DESCRIPTION

processing, and disposition of contaminated dumpster trash from controlled areas through closure. This waste stream consists of contaminated compactible type waste (paper, packaging, PPE, etc) generated from projects and activities in potentially contaminated environments around the FEMP. This task also provides for the processing of all prohibited items and/or wastes requiring treatment, to achieve full disposition of the forecasted wastes of this waste category.

Debris/Non-Compactible Trash (MMMC2) provides for the sorting, packaging and shipment or transfer of packaged debris/non-compactible trash generated prior to December 1, 2000, consisting of ISOs, metal boxes, and drums. This task also provides for the processing of all prohibited items and/or wastes requiring treatment, to achieve full disposition of the inventories baselined in this waste category.

Yard Scrap/Rolling Stock/Excess Containers (MMMC3) provides for the collection and processing (including removal of glass, fluids/non-conforming items and size reduction) of inventoried contaminated yard scrap, rolling stock, and excess containers and equipment. The primary wastes will be processed for OSDF disposal in a controlled area, under a Task Order, RCRA and/or prohibited items removed, size-reduced, loaded into ROBs, and moved to a transfer area for disposal in OSDF. Secondary wastes (not meeting the OSDF WAC) will be processed for shipment to NTS or combined with other similar waste streams in the Closure Baseline to receive treatment as required (under this task charge number) followed by off-site disposal.

This work package also provides for disposition of the existing 167 roll off box fleet. As the fleet size required to support the FEMP Closure gradually declines as the project progresses, excess ROBs will be inspected to verify they can be excessed to other DOE/Federal Facilities. Containers processed to another Federal site will be done under the conditions that the gaining site will pay for all gross decontamination, packaging as required, loading and shipping costs.

d. WORK SPECIFICALLY EXCLUDED:

WORK SCOPE DEFINITION
(Control Account)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 3

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.M.C	TRASH DISPOSITION

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	TODD CLARK - EXT. 4113	J. BUCKLEY - EXT. 3232

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3110	WASTE MANAGEMENT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/2000 - 09/2008

12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ONE LINE)
MMMC	LOW LEVEL WASTE TRASH & DEBRIS

14. ELEMENT TASK DESCRIPTION

1) Burial fees for the NTS or Envirocare of Utah.
2) The maintenance work package will provide budget for replacements and repairs of general use equipment.
3) "Green-Is-Clean" trash segregation and monitoring activities.
4) Newly generated debris packaged after December 1, 2000.
5) Additions to FEMP rolling stock made after the February 28, 2001 inventory will, upon completion of FEMP service, be free released under respective project budgets or excessed to another DOE site with the gaining site paying decontamination and transportation costs.
6) Non-contaminated yard scrap, rolling stock, materials, containers, etc. are processed through the excess process for free release and are not included in this work package
7) Yard scrap, rolling stock, or excess containers not included in the February 28, 2001 inventory.
8) Maintenance activities to maintain ROBs in usable condition.

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 1

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.M.C	TRASH DISPOSITION	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	TODD CLARK - EXT. 4113	J. BUCKLEY - EXT. 3232
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3110	WASTE MANAGEMENT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00		12/2000 - 09/2008
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
MMMC1	CONTAMINATED DUMPSTER TRASH	

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Material
Subcontracts
ODCs

b. TECHNICAL CONTENT:

This work packages provides for the collection, sorting, processing, and disposition of contaminated dumpster trash from controlled areas through closure. This waste stream consists of contaminated compactible type waste (paper, packaging, PPE, etc) generated from projects and activities in potentially contaminated environments around the FEMP. This work package also provides for the processing of all prohibited items and/or wastes requiring treatment, to achieve full disposition of the forecasted wastes of this waste category.

c. SCOPE OF WORK:

This work package includes wastes processed through the Controlled Area trash dumpsters, comprised primarily of compactible trash (disposable PPE, broken-up pallets, satellite change area trash, etc) with potential for small amounts (estimated 1 percent of the waste volume) of content considered prohibited items by disposal facilities. Prohibited wastes generally require additional treatment or processing prior to disposal to achieve disposal acceptance criteria and/or regulatory compliance. This work package includes an estimated 1500 dumpster loads (at an estimated 100 cubic feet each) that will be collected from controlled area sources throughout the remainder of the closure project (see table) plus 10 ISOs remaining from prior activities that packaged trash for

Project Manager	Control Account Manager	Control Team Manager

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 2

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.M.C	TRASH DISPOSITION	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	TODD CLARK - EXT. 4113	J. BUCKLEY - EXT. 3232
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3110	WASTE MANAGEMENT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00		12/2000 - 09/2008
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
MMMC1	CONTAMINATED DUMPSTER TRASH	

14. ELEMENT TASK DESCRIPTION

future processing (backlog).

This work package includes the following sub-tasks:

Planning, including procedure and task order maintenance, procurement of supplies and containers, and coordination of secondary waste/prohibited items handling and processing.
Characterization, including any RTR and/or NDA support required for gathering physical and radiological information. Development of characterization documentation for the primary or secondary wastes and prohibited items managed under this work scope is excluded from this package.
Processing, including delivery of trash dumpsters from discrete controlled area locations to Building 68, inspecting the waste for prohibited items, treatment of secondary wastes/prohibited items to meet disposition requirements, containerizing and moving bagged trash for void filler in NTS packaging operations, and containerizing and moving trash in Sea/Lands for OSDF placement staging.
Packaging, including preparing and labeling compactor boxes for off-site shipment and repackaging secondary wastes/prohibited items for respective disposition paths.
Shipping, including shipment of compacted trash to NTS and wastes requiring off-site treatment and/or off-site disposal.

d. WORK SPECIFICALLY EXCLUDED:

1) Burial fees for the NTS or Envirocare of Utah.
2) The maintenance work package will provide budget for replacements and repairs of general use equipment.
3) "Green-Is-Clean" trash segregation and monitoring activities.

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 1

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.M.C	TRASH DISPOSITION

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	TODD CLARK - EXT. 4113	J. BUCKLEY - EXT. 3232

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3110	WASTE MANAGEMENT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/2000 - 09/2002

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
MMMC2	DEBRIS & NON-COMPACTIBLE TRASH

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Material
Subcontracts
ODCs

b. TECHNICAL CONTENT:

This work package provides for the sorting, packaging and shipment or transfer of packaged debris/non-compactible trash generated prior to December 1, 2000, consisting of ISOs, metal boxes, and drums. This work package also provides for the processing of all prohibited items and/or wastes requiring treatment, to achieve full disposition of the inventories baselined in this waste category.

c. SCOPE OF WORK:

This work package includes 2543 containers packaged prior to December 1, 2000, as identified in the SWIFTS database (55 ISOs, 611 MBs, 2 Roll-Off Boxes, 1871 drums, and 4 large pieces of equipment equivalent to 1 ISO each). These wastes are sorted at the Building 71 "wood pile" into the various disposition paths available for mixed debris-like wastes. Based on existing regulatory guidance for containerized wastes, these wastes are all planned for off-site disposal (basis NTS).

This work package includes the following sub-tasks:

Planning, including procedure and task order maintenance, waste profile maintenance, procurement of supplies and containers, and coordination of secondary waste/prohibited items handling and processing.

Project Manager	Control Account Manager	Control Team Manager

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 2

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.M.C	TRASH DISPOSITION	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	TODD CLARK - EXT. 4113	J. BUCKLEY - EXT. 3232
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3110	WASTE MANAGEMENT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00		12/2000 - 09/2002
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
MMMC2	DEBRIS & NON-COMPACTIBLE TRASH	

14. ELEMENT TASK DESCRIPTION

Characterization, including any RTR and/or NDA support required for gathering physical and radiological information. Development of characterization documentation for the primary or secondary wastes and prohibited items managed under this work scope is excluded from this package. Daily support for determinations of WAC attainment (OSDF and off-site) is provided by another work scope.

Processing, including delivering inventory from storage to Building 71 sorting operations (or alternate processing location), inspecting the waste for prohibited items, sizing of wastes to be disposed at Envirocare (via transfer to WPRAP project), collection of sized debris in roll-of-boxes for transfer to WPRAP and/or to OSDF, transfer of ROBs, and treatment of secondary wastes/prohibited items to meet disposition requirements.

Packaging, including containerizing wastes for NTS disposal and repackaging secondary wastes/prohibited items for respective disposition paths.

Shipping, including shipment of Sea/Lands to NTS and shipment of wastes requiring off-site treatment and/or off-site disposal.

d. WORK SPECIFICALLY EXCLUDED:

1) Burial fees for the NTS or Envirocare of Utah.
2) The maintenance work package will provide budget for replacements and repairs of general use equipment.
3) "Green-Is-Clean" trash segregation and monitoring activities.
4) Newly generated debris packaged after December 1, 2000.

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 1

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.M.C	TRASH DISPOSITION	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	TODD CLARK - EXT. 4113	J. BUCKLEY - EXT. 3232
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3110	WASTE MANAGEMENT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00		03/2002 - 09/2006
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
MMMC3	YARD SCRAP/ROLLING STOCK/EXCESS CONTAINERS	

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Material
Subcontracts
ODCs

b. TECHNICAL CONTENT:

This work package provides for the collection and processing (including removal of glass, fluids/non-conforming items and size reduction) of inventoried contaminated yard scrap, rolling stock, and excess containers and equipment. The primary wastes will be processed for OSDF disposal in a controlled area, under a Task Order, RCRA and/or prohibited items removed, size-reduced, loaded into ROBs, and moved to a transfer area for disposal in OSDF. Secondary wastes (not meeting the OSDF WAC) will be processed for shipment to NTS or combined with other similar waste streams in the Closure Baseline to receive treatment as required (under this work package) followed by off-site disposal.

This work packages also provides for disposition of the existing 167 roll off box fleet. As the fleet size required to support the FEMP Closure gradually declines as the project progresses, excess ROBs will be inspected to verify they can be excessed to other DOE/Federal Facilities. Containers processed to another Federal site will be done under the conditions that the gaining site will pay for all gross decontamination, packaging as required, loading and shipping costs.

c. SCOPE OF WORK:

This scope includes the processing of contaminated yard scrap, including excess

Project Manager	Control Account Manager	Control Team Manager

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 2

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.M.C	TRASH DISPOSITION	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	TODD CLARK - EXT. 4113	J. BUCKLEY - EXT. 3232
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3110	WASTE MANAGEMENT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00		03/2002 - 09/2006
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
MMMC3	YARD SCRAP/ROLLING STOCK/EXCESS CONTAINERS	

14. ELEMENT TASK DESCRIPTION

containers and rolling stock that will be disposed of after size reduction in an estimated 327 roll off box loads (about 230,000 cubic feet based on 27 cubic yard ROB loads), to the OSDF.

Yard scrap and excess containers includes an estimated 74 ROBs volume (once size reduced), currently stored in 10 areas of the FEMP. This work package includes removal/processing and disposal of prohibited/non-conforming items and size reduction of the primary waste as necessary to permit meeting the OSDF WAC and facilitating transport via ROB to an OSDF transfer area. Size reduction, dismantling, and sorting operations will occur at each of the 10 identified locations from the February 28, 2001 inventory. Size reduction operations will utilize hydraulic-operated track-mounted shear equipment and other existing equipment available at the FEMP.

Rolling stock consists of 580 individual pieces, including a crane and a bulldozer at the large end of the scale. Rolling stock size reduction will be performed at a central location (with the exception of the crane and bulldozer size reduction), to facilitate an assembly-line approach for removal of non-conforming items, preparation, size reduction, loading and disposition. To promote a safe work environment, glass will be removed from each of the vehicles prior to size reduction. Size reduction will be performed as necessary to permit meeting the OSDF WAC and facilitating transport via ROB to an OSDF transfer area. Size reduction operations will utilize hydraulic-operated track-mounted shear equipment available at the FEMP.

Roll-off boxes (considered as excess containers) includes a total of 167 containers used as a fleet to ferry compliant wastes to the OSDF or for other on-site transport purposes. These containers are rated 30 cubic yard and are estimated to carry 27 cubic yard loads. At the end of their required service period at the FEMP the ROBs will be inspected for determining whether they remain serviceable. All 167 ROBs are expected to be in serviceable condition at the completion of the FEMP closure work and be available for transfer to other Federal sites for continued use, based on continued maintenance and upkeep under separately budgeted maintenance programs. ROBs processed to another Federal site will require the gaining site to pay all gross decontamination, packaging, loading and shipping costs. All site ROBs are to be processed to other Federal sites under this property management program (by others).

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 3

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.M.C	TRASH DISPOSITION	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	TODD CLARK - EXT. 4113	J. BUCKLEY - EXT. 3232
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3110	WASTE MANAGEMENT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00		03/2002 - 09/2006
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
MMMC3	YARD SCRAP/ROLLING STOCK/EXCESS CONTAINERS	

14. ELEMENT TASK DESCRIPTION

This work package includes the following sub-tasks:

Planning, including procedure and task order development/maintenance, procurement of supplies and containers, and coordination of secondary waste/prohibited items handling and processing.
Characterization, including any RTR and/or NDA support required for gathering physical and radiological information. Development of characterization documentation for the primary or secondary wastes and prohibited items managed under this work scope is excluded from this package. Daily support for determinations of WAC attainment is provided by another work scope.
Processing, including removal of fluids and non-conforming materials, sizing of wastes to meet WAC (Yard Scrap at 10 locations - Rolling Stock at a central location), collection of sized debris in ROBs, transfer of ROBs to OSDF and treatment of secondary wastes/prohibited items to meet disposition requirements.
Packaging, including containerizing wastes for NTS disposal, and repackaging secondary wastes/prohibited items for respective disposition paths.
Shipping, including shipment of containers to NTS and shipment of wastes requiring off-site treatment and/or off-site disposal.

d. WORK SPECIFICALLY EXCLUDED:

1) Additions to FEMP rolling stock made after the February 28, 2001 inventory will, upon completion of FEMP service, be free released under respective project budgets or excessed to another DOE site with the gaining site paying decontamination and transportation costs.
2) Non-contaminated yard scrap, rolling stock, materials, containers, etc. are processed through the excess process for free release and are not included in this work package
3) Burial fees for the NTS or Envirocare of Utah.
4) The maintenance work package will provide budget for replacements and repairs of general use equipment.
5) Yard scrap, rolling stock, or excess containers not included in the February 28, 2001 inventory.

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 4

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.M.C	TRASH DISPOSITION

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	TODD CLARK - EXT. 4113	J. BUCKLEY - EXT. 3232

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3110	WASTE MANAGEMENT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	03/2002 - 09/2006

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
MMMC3	YARD SCRAP/ROLLING STOCK/EXCESS CONTAINERS

14. ELEMENT TASK DESCRIPTION

6) Maintenance activities to maintain ROBs in usable condition.

SECTION 3

1.0 NARRATIVE

1. PROJECT TITLE: WASTE MANAGEMENT	2. DATE: 09/10/01	3. PBS#: 11
4. WBS ELEMENT CODE: 1.1.M.C.	5. WBS ELEMENT TITLE: LLW TRASH AND DEBRIS	
6. CAM NAME/ PHONE: JIM BUCKLEY/ 3232	7. CAM SIGNATURE:	
8. ORIGINAL/ CHANGE SCOPE/ PER CP#:	9.CONTROL ACCOUNT: MMMC	

SECTION 3: MMMC – LLW TRASH AND DEBRIS

1.0 NARRATIVE

1.1 OVERVIEW

This work package provides for the planning, administration/management, warehousing, surveillance, packaging, preparation, consolidation, and transfer/shipment of low level waste dumpster trash, debris, yard scrap and roll-off boxes (ROBs) to the On-Site Disposal Facility (OSDF) and/or off-site locations. These materials are to be prepared in accordance with OSDF and/or off-site location specifications and applicable transportation guidelines. Low level waste trash, debris, yard scrap, and ROBs will be managed in a manner that is consistent with the requirements of the FEMP S/RID and DOE Order 435.1. This work package is for current and future-generation contaminated dumpster trash. This work package includes only debris/non-compactible waste packaged prior to December 1, 2000. This work package includes only yard scrap/excess containers (estimated 74 ROBs disposition volume), rolling stock (estimated 253 ROBs disposal volume) and site ROBs (167) inventoried as of February 28, 2001.

1.2 ASSUMPTIONS/EXCLUSIONS

1.2.1 Assumptions

1.2.1.1 General

- None of the primary wastes in this waste stream require additional formal characterization or sampling for disposition. Existing process knowledge, sample analyses and visual inspections will provide sufficient characterization information for dispositioning the primary wastes managed under this scope.

- Regulatory requirements remain unchanged during the baseline performance period.

- Wastes in these categories do not require nuclear criticality controls.

- Prohibited articles and wastes that require treatment prior to disposition included in the work package can be effectively dispositioned through other processes included in the closure baseline, such as by utilizing existing planned RCRA waste treatment contracts.

- Weather impacts on loading and shipping operations are typical for the FEMP.
- Necessary equipment is available to support operations.
- No additional JSAs, MAs, or SSRs required for work tasks associated with this work package.
- No additions to list of prohibited items for OSDF or NTS.

1.2.1.2 Contaminated Dumpster Trash

- Includes all trash processed through FEMP Controlled Area dumpsters.
- This work package assumes 1500 dumpster loads collected through site closure (based on estimated 350 in FY-01, 280 in FY-02, 250 in FY-03, 200 in FY-04, 150 in FY-05, 150 in FY-06, 120 in years post FY-06).
- Sorting and/or compactor operations at Building 68 are not impacted through September 2004.
- Waste generation forecasts for this waste stream are reliable within +/- 5%.
- Procedure reviews/revisions limited to once annually.
- No waste profile revisions required to achieve trash disposition.
- Trash compaction not required to achieve trash disposition.

1.2.1.3 Debris/Non-Compactible Trash

- Only Debris/Non-Compactible Trash already packaged as of December 1, 2000 will be included in this work package based on the SWIFTS database.
- Debris sorting/packaging operations at the Plant 1 Pad/Building 71 are not impacted through April 2006.
- Debris/Non-Compactible Trash complying with OSDF WAC Attainment Plan physical requirements will be transferred to identified OSDF Transfer Area(s).
- Procedure reviews/revisions limited to once annually.

1.2.1.4 Yard Scrap/Rolling Stock/Excess Containers

- Materials do not require any type of criticality controls.

- Scrap material, debris and rolling stock will be processed to remove liquids, any prohibited items, and RCRA materials. Any such material identified as not meeting the OSDF WAC will be processed for shipment to NTS or combined with other similar waste streams for treatment/disposition, under this charge number to cover the disposal cost.

- Not more than 2% of the overall volume of waste verified will be prohibited items.

- Additions to FEMP rolling stock made after the February 28, 2001 inventory will, upon completion of FEMP service, be free released under respective project budgets or excessed to another DOE site with the gaining site paying decontamination and transportation costs.

- Non-contaminated yard scrap, rolling stock, materials, containers, etc. are processed through the excess process for free release and are not included in this work package.

- Another Federal site will accept all of the excessed roll-of-boxes and pay all gross decontamination, packaging, loading and shipping costs.

1.2.1.5 OSDF

- The OSDF Project will accept and provide required staging facilities for volumes of dumpster trash and Debris/NCT that meets WAC.

- Delivery of accepted wastes to an area identified by the OSDF Project as a Transfer Area constitutes completion of work scope under this work package.

- Prior to transfer to OSDF, costs for any waste packaging, movement and/or staging are included in this work scope.

- Trash staged in ISOs is placed by OSDF Project without need for repackaging.

1.2.1.6 NTS

- NTS remains viable and open for receiving this FEMP waste stream as planned throughout the FEMP Closure without additional requirements or preclusion of burial of LLW trash and debris.

- DOT requirements for shipment of these wastes are not increased during the FEMP Closure.

- Shipments to the NTS are not impacted by external entities.

- Shipping containers (including compactor boxes and intermodal containers) will be procured to Standard Industrial requirements.

- Alternate equivalent off-site disposition can be substituted for NTS disposition, based on cost, schedule, and other project-specific criteria, if requirements can be met and site RODs support such a change.

1.2.2 Exclusions

- Burial fees for the NTS or EnviroCare of Utah.

- Characterization (including absorbent determinations, waste compatibility assessments, MEF verification, RCRA determination, and support to DOT package determinations) are provided by another work scope.

- The maintenance work package will provide budget for replacements and repairs of general use equipment for this work package, such as the trash sorting conveyor, dumpster truck, trash dumpsters, trash compactor, Building 68 Facility, the OSDF ROB fleet, and various vehicles used in the collection and processing of these wastes and containers.

1.2.2.1 Contaminated Dumpster Trash

- Handling, packaging, sorting, etc. of non-contaminated trash or previously identified recyclable materials.

- "Green-Is-Clean" trash segregation and monitoring activities.

- Trash-like wastes not collected from the site contaminated dumpster program.

- Container receipt inspection and storage at a commercial disposal facility.

- Operation of OSDF transfer area(s), associated waste staging costs, and waste placement costs are provided in OSDF project budgets.

1.2.2.2 Debris/Non-Compactible Trash

- "Green-Is-Clean" trash segregation and monitoring activities.

- Trash from the site contaminated dumpster program.

- Copper Recycle material.

- All newly generated debris packaged after December 1, 2000 will be the financial responsibility of the generating activity.

- Container receipt inspection and storage at a commercial disposal facility.

1.2.2.3 Yard Scrap/Rolling Stock/Excess Containers

- Yard scrap, rolling stock, or excess containers not included in the February 28, 2001 inventory.

- Non-contaminated yard scrap, rolling stock or excess containers, as described in this work package.

- Rail car and bulk lime contents already residing in the expanded OMTA footprint – Managed under the OSDF Project.

- Property management administrative costs to excess the roll-off box fleet.

- Maintenance activities to maintain ROBs in usable condition.

- Equipment preparation, decontamination, and shipping costs associated with excessing/transfer to another site.

1.2.3 Government-Furnished Equipment/Services

- Nevada Test Site (NTS) Disposal Facility
- Envirocare Disposal based on DOE or Corps of Engineers contracts
- Disposal funds and funds transfer systems (e.g. interoffice work orders, etc)
- Government Asset transfer costs associated with the excessed roll-off boxes

1.3 DRIVERS

Drivers include both events (or activities) that must occur as predecessor or contemporary to the project, as well as significant requirements that must be met in the execution of the project.

1.3.1 Events

- OSDF OMTA sizing and construction to support staging of dumpster trash and debris/NCT that meets WAC.

- NTS continues to operate in a manner consistent with present methods and schedules.

- OSDF transfer area(s) are made available to support the disposition schedule.

- Completion of service requirements for existing rolling stock fleet.

1.3.2 Requirements

In addition to applicable elements from the Closure Contract S/RID, the following additional requirements significantly affect the project:

- Operable Unit 3 requirements (decision and implementing documents)
- OSDF WAC Attainment Plan
- DOE/NV-325-Rev. 3, Nevada Test Site Waste Acceptance Criteria, dated December 2000.
- Envirocare of Utah contract-specific waste acceptance criteria.

1.4 PROJECT PHYSICAL DESCRIPTION

This work package is organized in three tasks (charge numbers MMMC1, MMMC2, and MMMC3) with additional supporting structure in the form of subtasks and activities. The following sections provide a general description of the tasks, sub-tasks and activities in this work package.

1.4.1 Task #1 – MMMC1 - Contaminated Dumpster Trash

MMMC1 provides for the collection, sorting, processing, and disposition of contaminated dumpster trash from controlled areas through closure. This waste stream consists of contaminated compactible type waste (paper, packaging, PPE, etc) generated from projects and activities in potentially contaminated environments around the FEMP. This task also provides for the processing of all prohibited items and/or wastes requiring treatment, to achieve full disposition of the forecasted wastes of this waste category.

This task includes the following sub-tasks:

1) Planning

Planning, including procedure and task order maintenance, procurement of supplies and containers, and coordination of secondary waste/prohibited items handling and processing.

2) Characterization

Characterization, including any RTR and/or NDA support required for gathering physical and radiological information. Development of characterization documentation for the primary or secondary wastes and prohibited items managed under this work scope is excluded from this package.

3) Processing

Processing, including delivery of trash dumpsters from discrete controlled area locations to Building 68, inspecting the waste for prohibited items, treatment of secondary wastes/prohibited items to meet disposition requirements, containerizing and moving bagged trash for void filler in NTS packaging operations, and containerizing and moving trash in Sea/Lands for staging for OSDF placement.

4) Packaging

Packaging, including preparing and labeling compactor boxes for off-site shipment and repackaging secondary wastes/prohibited items for respective disposition paths.

5) Shipping

Shipping, including shipment of compacted trash to NTS and wastes requiring off-site treatment and/or off-site disposal.

1.4.2 Task #2 - MMMC2 – Debris/Non-Compactible Trash

MMMC2 provides for the sorting, packaging and shipment or transfer of packaged debris/non-compactible trash generated prior to December 1, 2000, consisting of ISOs, metal boxes, and drums. This task also provides for the processing of all prohibited items and/or wastes requiring treatment, to achieve full disposition of the inventories baselined in this waste category.

This task includes the following sub-tasks:

1) Planning

Planning, including procedure and task order maintenance, waste profile maintenance, procurement of supplies and containers, and coordination of secondary waste/prohibited items handling and processing.

2) Characterization

Characterization, including any RTR and/or NDA support required for gathering physical and radiological information. Development of characterization documentation for the primary or secondary wastes and prohibited items managed under this work scope is excluded from this package. Daily support for determinations of WAC attainment (OSDF and off-site) is provided by another work scope.

3) Processing

Processing, including delivering inventory from storage to Building 71 sorting operations (or alternate processing location), inspecting the waste for prohibited items, sizing of

wastes to be disposed at Envirocare (via transfer to WPRAP project), collection of sized debris in roll-of-boxes for transfer to WPRAP and/or to OSDF, transfer of ROBs, and treatment of secondary wastes/prohibited items to meet disposition requirements.

4) Packaging

Packaging, including containerizing wastes for NTS disposal and repackaging secondary wastes/prohibited items for respective disposition paths.

5) Shipping

Shipping, including shipment of Sea/Lands to NTS and shipment of wastes requiring off-site treatment and/or off-site disposal.

1.4.3 Task #3 – MMMC3 – Yard Scrap/Rolling Stock/Excess Containers

MMMC3 provides for the collection and processing (including removal of glass, fluids/non-conforming items and size reduction) of inventoried contaminated yard scrap, rolling stock, and excess containers and equipment. The primary wastes will be processed for OSDF disposal in a controlled area, under a Task Order, RCRA and/or prohibited items removed, size-reduced, loaded into ROBs, and moved to a transfer area for disposal in OSDF. Secondary wastes (not meeting the OSDF WAC) will be processed for shipment to NTS or combined with other similar waste streams in the Closure Baseline to receive treatment as required (under this task charge number) followed by off-site disposal.

Task 3 also provides for disposition of the existing 167 roll off box fleet. As the fleet size required to support the FEMP Closure gradually declines as the project progresses, excess ROBs will be inspected to verify they can be excessed to other DOE/Federal Facilities. Containers processed to another Federal site will be done under the conditions that the gaining site will pay for all gross decontamination, packaging as required, loading and shipping costs.

Completion of this work package is achieved either through transfer of wastes to identified OSDF Waste Transfer Area(s), through shipment and burial in an off-site facility, or through recycling/reuse of the inventory at an alternate location.

This task includes the following sub-tasks:

1) Planning

Planning, including procedure and task order development/maintenance, procurement of supplies and containers, and coordination of secondary waste/prohibited items handling and processing.

2) Characterization

Characterization, including any RTR and/or NDA support required for gathering physical and radiological information. Development of characterization documentation for the primary or secondary wastes and prohibited items managed under this work scope is excluded from this package. Daily support for determinations of WAC attainment is provided by another work scope.

3) Processing

Processing, including removal of fluids and non-conforming materials, sizing of wastes to meet WAC (Yard Scrap at 10 locations – Rolling Stock at a central location), collection of sized debris in ROBs, transfer of ROBs to OSDFand treatment of secondary wastes/prohibited items to meet disposition requirements.

4) Packaging

Packaging, including containerizing wastes for NTS disposal, and repackaging secondary wastes/prohibited items for respective disposition paths.

5) Shipping

Shipping, including shipment of containers to NTS and shipment of wastes requiring off-site treatment and/or off-site disposal.

1.5 PROJECT PLAN/TECHNICAL SCOPE AND QUANTIFICATION

This section provides additional detail and quantification of the technical scopes of the 3 tasks within the work package. Quantification provides a summary of the basis of estimate, however, the estimate provides additional detailed assumptions and conversions.

1.5.1 MMMC1 - Contaminated Dumpster Trash

Contaminated Dumpster Trash includes wastes processed through the Controlled Area trash dumpsters, comprised primarily of compactible trash (disposable PPE, broken-up pallets, satellite change area trash, etc) with potential for small amounts (estimated 1 percent of the waste volume) of content considered prohibited items by disposal facilities. Prohibited wastes generally require additional treatment or processing prior to disposal to achieve disposal acceptance criteria and/or regulatory compliance. This work package includes an estimated 1500 dumpster loads (at an estimated 100 cubic feet each) that will be collected from controlled area sources throughout the remainder of the closure project (see table) plus 10 ISOs remaining from prior activities that packaged trash for future processing (backlog).

Estimated Dumpster Loads by Fiscal Year

FY01	FY02	FY03	FY04	FY05	FY06	FY07+
350	280	250	200	150	150	120

The second table identifies the disposal sites to be utilized for this waste, including the estimated volumes – additional information is provided in the attached flowcharts for this waste stream.

Estimated Disposal Volumes by Disposal Site

Disposal Site	Explanation	Volumes (CF)
NTS	Trash compacted at Building 68 prior to mid-FY-01	1,047
NTS	Trash used as void filler in other project shipments (throughout containerized shipments projects) Assumes 50 % of trash generated in FY01 through FY03 (minus 1 % prohibited items fraction)	47,153
OSDF	Remainder of forecast trash generation minus corresponding 1% prohibited items fraction	110,200
Various	Prohibited items fraction	1,600
Total		**160,000**

Prohibited items (including asbestos materials, batteries, aerosol cans, glass, lead-bearing materials, liquids, and solvent-soaked rags, etc.), to be removed during the sorting of this waste, will be processed to meet disposal requirements at the NTS or other off-site locations under this work package or may be recycled, when cost effective, to avoid disposal. Based on prior experience, the prohibited items/non-conforming wastes fraction of this waste stream is estimated as 30% to other waste types (wood, glass, or asbestos), 20% to site recycling programs (lead-acid batteries, tires), and 50 % as aerosol cans (to be punctured, liquids processed/treated, and cans crushed for disposal as debris). The table summarizes the planned management approach for each of the anticipated prohibited wastes.

Management Approach for Prohibited Items

Waste Type	Anticipated Volume (CF)	Management Approach	Disposal
Aerosol Cans	800	Collect in 115 drums, puncture and crush cans (~200 CF crushed) Collect liquids (~590 gallons) in 1 drums and transfer to bulking to incinerate off-site (subcontract)	Transfer to OSDF Ash to NTS
Lead-Acid Batteries and Tires to Recycling	320	Collect on 20 pallets and decontaminate	Release to recycler
Other Wood, and Glass Asbestos	480 400 80	Collect in ROB Collect in bags at less than 50 pounds in 1 metal box – move to common ISO	 Transfer to OSDF Transfer to OSDF
Total	**1,600**		

Management and disposition of the contaminated dumpster trash waste stream is accomplished within the standardized project sub-task framework established for all PBS-11 project activities, comprised of sub-tasks and the associated specific activities as follows:

1) Subtask #1 - Planning

1.1) Plan/Scope - Planning

- Develop contaminated trash generation forecast for the remainder of closure, based on previous history of dumpster trash generation and current waste generation activities.

- Identify primary disposition paths for the wastes, develop secondary waste and prohibited items forecasts, and identify disposition paths for secondary wastes and prohibited items.

- Develop/maintain procedures to guide the work activities, and incorporate requirements and safety goals.

- Perform project planning support activities, including workforce task training, safety analyses, technical review board, DOT determinations, ISRC reviews, and readiness activities.

- Implement planned improvements to approach that will replace dumpster trash collection with ROB collection, once the OSDF is returned to service.

- Maintain performance/status tracking tools for this project and perform project execution oversight.

- Coordinate interface with other site projects to obtain treatment capabilities and existing disposition support for resulting prohibited wastes requiring treatment or additional processing.

1.2) Quantification - Planning

In addition to quantitative information provided above, the planning activities for the disposition of contaminated trash are based on providing a continuing operations support and troubleshooting interface for this procedure-based operation. The project will undergo a series of procedural shifts as the closure project matures that will shift the general handling approach for contaminated trash from collect-sort-compact-ship to NTS, to collect-sort-OSDF/NTS and then upon reopening of the OSDF in FY04 to collect and transfer to OSDF. This will require the development of revisions to the governing procedure (as well as annual review) and development and execution of the new approach. These changes will be accomplished using the planning team.

The disposition of the 1600 CF prohibited items waste additionally requires the development of task orders to permit transfer of those wastes that can be managed with other similar wastes. This includes the development of 4 additional task orders (asbestos, lead for decontamination/recycling, tires for decontamination/recycling, organic liquids collection and transfer to treatment) for transferring and managing these wastes.

2) Subtask #2 - Characterization

2.1) Plan/Scope - Characterization

Characterization support and verification and WAC attainment for this activity is provided under separate work package.

2.2) Quantification - Characterization

Not Applicable

3) Subtask #3 - Processing

3.1) Plan/Scope - Processing

Early FY01

- Collect dumpsters from any of 31 locations as they become filled, sort trash at Building 68 sorting conveyor, transfer approved trash to compactor, and compact for waste minimization.

Mid-FY01-mid-FY04 (OSDF Reopening)

- Collect dumpsters from each of 10 locations, as they are filled (estimated 880 dumpster loads), and move stored dumpster trash (10 ISOs) from storage at the Plant 1 Pad to sorting/compactor area of Building 68.

- Maintain Building 68 facilities to perform staging, sorting, and packaging operations.

- Maintain field characterization capability to support fast-turnaround guidance on unusual materials.

- Procure supplies, including absorbents, bags, tape, and containers (115 drums) (assume ISOs for waste staging will be taken from existing not-for-shipping fleet).

- Sort dumpster trash to remove prohibited items (estimated 1% of the waste) from the primary waste stream and identify wet trash (estimated 5% of waste) for dewatering.

- Place accepted bagged trash in 97 ISO containers for transfer to OSDF (49 for staging disposal) and Plant 1 Pad (48 for use in void filling operations).

- Containerize prohibited items (per table) and/or items requiring other processing, amending with specified absorbent materials.

- Dewater wet trash into collection tank (estimated 1600 gallons) and transfer to AWWT for aqueous liquids treatment/disposition.

- Perform treatment to support disposition of prohibited items and items requiring other processing, (includes decanting free liquids and processing for disposal, puncturing ~800 CF aerosol cans and dispositioning ~590 gallons collected liquids and ~200 CF crushed empty cans, and specific chemical treatments as required).

Mid FY04 through Closure

- Inspect bagged trash at ROBs (estimated 620 dumpster loads) to verify the primary wastes meet the OSDF Waste Acceptance Criteria (WAC), returning those not meeting WAC to respective generator(s).

- Collect each of 5 ROBs (once each quarter after FY04-2) staged at specific project locations in controlled areas for contaminated trash collection and then deliver to OSDF transfer area.

Verification that the primary wastes meet the OSDF Waste Acceptance Criteria (WAC) and/or NTS WAC, as applicable is provided by another work scope.

3.2) Quantification - Processing

In addition to quantitative information provided above, the processing activities for the disposition of contaminated trash are based on the assumptions that the current Building 68 sorting operation can sort 2.3 dumpsters per day or 0.5 ISOs of trash per day, utilizing a standard crew (see attached estimate). During the period prior to the opening of the OSDF in FY04, sorted trash will be placed in ISOs (estimated 97). Each of the ISOs will be moved once by the project: half will be transferred to the Debris packaging operation to fill void spaces in planned NTS shipments; the remaining 49 ISOs will be tranferred to the OSDF OMTA for staging for disposal by that project.
After the OSDF returns to service in FY04, ROBs will be utilized instead of dumpsters for the collection of these wastes, and remote sorting will be eliminated in favor of inspection of the waste prior to placement in the ROB. ROBs will be collected quarterly from each of 5 specific trash collection locations and transported directly to the OSDF, resulting in 120 loads/partial loads.

Prohibited items (estimated 1% of the total waste from Trash sorting – 1600CF) will be removed to collection containers as part of the sorting process. Processing of the

prohibited items for disposal includes draining and crushing 800 CF of aerosol cans, transfer of 200 CF crushed cans to ROBs for OSDF, collecting ~590 gallons of organic liquids in 12 drums, bulking the liquid into a TSCA bulking batch, decontamination of 20 pallets of batteries and tires for release, bagging and transfer to ISO of 80 CF asbestos for OSDF disposal, and collection of 400 CF wood and glass in ROBs for OSDF disposal.

4) Subtask #4 - Packaging

4.1) Plan/Scope - Packaging

- Operate trash compactor in FY01 to utilize remaining site compactor boxes for NTS shipments and perform RTR analysis to verify free liquid content is less than 1%.

4.2) Quantification - Packaging

In addition to quantitative information provided above, the packaging activities for the disposition of contaminated trash are based on the filling of 10 compactor boxes. Containerizing the void-filling trash into shipments to NTS is not covered by this charge number, since the material will be used to fill empty space in shipments already planned under other work packages (containerization is a part of the sorting operation addressed by the processing sub-task). Packaging for most of the prohibited items is managed under programmatic efforts. Packaging of the organic liquids for off-site treatment will not be billed back to this task, due to the relatively minor fraction of a batch represented by this waste stream.

5) Subtask #5 - Shipping

5.1) Plan/Scope - Shipping

- Move/Load 10 compacted trash containers and ship (1 shipment) to NTS by approved route.

5.2) Quantification - Shipping

In addition to quantitative information provided above, the shipping activities for the disposition of contaminated trash are based on standard loading/shipping team with a throughput rate estimate of 18 compactor box moves per day, and 10 compactor boxes loaded and shipped per day.

1.5.2 MMMC2 - Debris/Non-Compactible Trash

Debris/Non-Compactible Trash (NCT) includes 2543 containers packaged prior to December 1, 2000, as identified in the SWIFTS database (55 ISOs, 611 MBs, 2 Roll-Off Boxes, 1871 drums, and 4 large pieces of equipment equivalent to 1 ISO each). These wastes are sorted at the Building 71 "wood pile" into the various disposition paths

available for mixed debris-like wastes. Based on existing regulatory guidance for containerized wastes, these wastes are all planned for off-site disposal (basis NTS).

Prohibited items (including asbestos materials, lead-acid batteries, aerosol cans, glass, lead-bearing materials, liquids, and solvent-soaked rags), to be removed during the sorting of this waste, will be processed to meet disposal requirements at the NTS or other similar off-site locations under this work package or may be recycled to avoid disposal.

Based on previous experience with the debris/non-compactible trash waste stream, the sorting operation is expected to remove 15 % of the stream initially for additional processing. Of this, 80% (net 12 percent) is typically processed at the job site to permit the waste to be re-included with the primary waste stream. This processing includes evaporation of wet materials, further segregation, and/or requesting specific technical guidance relevant to WAC attainment. The remaining 20% of this fraction (net 3 percent) is NTS prohibited item waste (see attachment).

For ISO and ROB containers, these fractions, as illustrated below, represent the entire estimated secondary waste situation.

ISOs and ROBs Inventory by Percent

Primary Waste	Rework	Pr
85%	12%	3%

For debris wastes in metal boxes and drums, an additional 20% of the waste typically fails to meet the waste stream profiles for debris/non-compactible trash (illustrated below). This fraction is generally comprised of residues or soils that must be further characterized and dispositioned under other waste profiles, using alternate packaging, and requiring additional handling for dispositioning.

Boxes and Drums Inventory by Percent

Primary Waste	Non-Debris	Rework	Pr
65%	20%	12%	3%

Debris wastes are planned to be shipped in ISOs to the NTS with an estimated net volume of 109,392 cubic feet or 100 ISO shipments. The prohibited items fraction (~3740 cubic feet untreated) is subsequently treated and/or processed to achieve disposition, based on the specific characteristics of the materials collected. Based on prior experience, the prohibited items/non-conforming wastes fraction of this waste stream is estimated as 25% to site recycling programs (lead-acid batteries, tires), 25% to other NTS waste profiles (glass, etc.), 40% as aerosol cans (to be punctured, liquids processed/treated, and cans crushed for disposal as debris), and 10% to off-site mixed waste treatment (lead and mercury).

The sorted non-debris fraction of the waste (~11,970 cubic feet) is re-containerized for completion of characterization for respective disposition (which may include on-site

transfer to the stockpiles for processing to Envirocare or shipment to NTS under alternate waste profile). All of these wastes are planned for off-site disposal. The table summarizes the planned management approach for each of the anticipated prohibited wastes.

Management Approach for Prohibited Items

Waste Type	Anticipated Volume (CF)	Management Approach	Disposal
Aerosol Cans	1497	Collect in 200 drums, puncture and crush cans (~374 CF crushed) Collect liquids (~103 gallons) in 2 drums and transfer to bulking to incinerate off-site (subcontract)	Transfer to OSDF Ash to NTS
Lead-Acid Batteries and Tires to Recycling	936	Collect in 1 ISO and on 20 pallets and decontaminate	Release to recylcer
Non-Recyclable Lead and Mercury Wastes	374	Collect in 50 drums	Ship to E-Care for Macro + Disposal
Other Residues	936	Collect in 1 ROB	Transfer to WPRAP
Total	**3,742**		

1) Subtask #1 - Planning

1.1) Plan/Scope - Planning

- Identify inventory and waste forecast, develop task orders and procedures to guide the work activities, and incorporate requirements and safety goals.
- Perform project planning support activities, including training, safety analyses, technical review board, DOT determinations, ISRC reviews, and readiness activities.
- Maintain performance/status tracking tools for the project activity and perform project oversight.

1.2) Quantification - Planning

In addition to quantitative information provided above, the planning activities for disposition of the debris/non-compactible wastes assumes the development of one task order for the operation, with annual reviews and additional daily planning support for providing guidance for planned waste sorting activities.

The disposition of 3742 CF prohibited items waste additionally requires the development of 3 additional task orders to guide transfer of those wastes that can be managed with other similar wastes (lead for decontamination/recycling, tires for decontamination/recycling, and wastes for macroencapsulation).

2) Subtask #2 - Characterization

2.1) Plan/Scope - Characterization

- Verify wastes planned for processing through the Building 71 sorting/checklisting operation meet the intent of applicable NTS profile(s).
- Perform NDA analysis for containers exceeding prescribed trigger limits for additional data collection (estimated 15%).
- Perform real-time radiography (RTR) for 50 drums of off-site shipment wastes for treatment.

The maintenance of a daily field characterization capability to support fast-turnaround guidance on unusual materials, characterization of secondary wastes (prohibited items/requiring processing), verification of WAC attainment, absorbent determination, and support for shipping package determination are provided by characterization budgets (excluded from this scope).

2.2) Quantification - Characterization

In addition to quantitative information provided above, the characterization activities for the disposition of debris/non-compactible trash are based on assumption that only off-site waste disposition requires additional sampling/analytical support, however, the only anticipated wastes of this type are organic liquids collected from the aerosol can puncturing process and metals for macroencapsulation. Due to the limited quantity of organic liquids in comparison to the overall bulk quantity of organic liquids to be processed at the primary bulking (~ 100 gallons versus the typical 20,000 gallon batch size), the bulk sampling and analytical costs for this waste will not be distributed back to this work package.

3) Subtask #3 - Processing

3.1) Plan/Scope - Processing

- Prepare facilities to perform sorting, packaging, and storage operations.
- Move stored Debris/NCT from storage location(s) to sorting area(s).
- Procure materials/supplies and containers, such as 100 ISOs, drums, and absorbents.
- Sort debris/NCT to remove prohibited items and items requiring other processing.

- Perform field characterization (checklisting) of items acceptable under respective NTS profile(s).

- Move containerized non-conforming wastes that cannot be immediately processed to final disposition back to storage.

- Perform treatment to support disposition of prohibited items and items requiring other processing, including decanting, aerosol can puncturing, and specific chemical treatments as required.

- Move containerized wastes that will be processed by other site programs to staging areas.

3.2) Quantification - Processing

In addition to quantitative information provided above, the processing activities for the disposition of debris/non-compactible waste are based on the assumptions that the current Building 71 sorting/repackaging operation can sort 18 drums per day or 3 metal boxes per day or 1.5 ISOs per day (on average), utilizing a standard crew (see attached estimate). During the sorting process, prohibited items/non-conforming wastes will be encountered (as described above for the differing types of containers).

Moves of non-conforming drum and box inventories back to storage will not exceed 5% of the incoming volume of those container types for sorting.

4) Subtask #4 - Packaging

4.1) Plan/Scope - Packaging

- Package 100 ISOs and label for off-site shipment

- Containerize/label prohibited items and/or items requiring other processing, amending with specified absorbent materials.

4.2) Quantification - Packaging

In addition to quantitative information provided above, the packaging activities for this waste are based on drumming/labeling of ~374 CF of lead requiring off-site macroencapsulation. Throughput is estimated at 46 drums per day and movement of 60 drums per day. Packaging/labeling is also performed for 100 ISOs for NTS shipment, at a rate consistent with the sorting operation. No other wastes are expected to require packaging for off-site disposal.

5) Subtask #5 - Shipping

5.1) Plan/Scope - Shipping

- Move/Load debris/NCT containers (100 ISOs) and ship to NTS by approved route (as 100 truck shipments).
- Move/Load 50 drums lead for offsite treatment and ship as 1 truck shipment.

5.2) Quantification - Shipping

In addition to quantitative information provided above, the shipping activities for this waste include shipment of 50 drums of lead (containing ~374 CF of lead for macroencapsulation), which is based on loading/shipping 46 drums per day. This shipment will be supported with package determinations in advance of generation (see characterization sub-task).

Shipping also includes 100 ISO truck shipments, based on 3 ISOs moved per day and 2 ISOs shipped per day, based on standard crew. No other wastes will be shipped off-site for disposition.

1.5.3 MMMC3 - Yard Scrap/Rolling Stock/Excess Containers

This scope includes the processing of contaminated yard scrap, including excess containers and rolling stock that will be disposed of after size reduction in an estimated 327 roll off box loads (about 230,000 cubic feet based on 27 cubic yard ROB loads), to the OSDF.

Yard Scrap/Excess Containers

Yard scrap and excess containers includes an estimated 74 ROBs volume (once size reduced), currently stored in 10 areas of the FEMP. This task includes removal/processing and disposal of prohibited/non-conforming items and size reduction of the primary waste as necessary to permit meeting the OSDF WAC and facilitating transport via ROB to an OSDF transfer area. Size reduction, dismantling, and sorting operations will occur at each of the 10 identified locations from the February 28, 2001 inventory. Size reduction operations will utilize hydraulic-operated track-mounted shear equipment and other existing equipment available at the FEMP.

Yard scrap is located as follows per the physical inventory of February 28, 2001, with associated estimates of size-reduced volumes in number of ROB loads, totaling 74:

Yard Scrap Inventory Summary

Location/Description	Quantity
1 - East of Quonset huts (between Huts and B Street) Metal objects, drums, and trash	2 ROBs
- South of Quonset Huts (between Huts, SP7 & Haul Road) Metal pieces from size reduction, building debris and trash	10 ROBs
Adjacent to Railcar of Lime Rail tracks and structural metal objects that have been size reduced	1 ROB
Inside Bldg. 61 Thorium contaminated metal objects from size reduction of 57 pieces of machinery	18 ROBs
North of Bldg. 12, East of Boiler Plant near old Propane Area Metal objects from size reduction of tanks and miscellaneous objects	1 ROB
Corner of 1st and B Street Metal objects from size reduction and miscellaneous trash	1 ROB
Corner of B Street/2nd Street, NE & NW corners of Plant 2/3 Metal objects from size reduction of Sea/Land containers, and miscellaneous trash and debris	1 ROB
Plant 4 Pad East of B Street between 1st and 2nd Street Metal objects from size reduction of 18 pieces of miscellaneous equipment including 2 large lathes, stainless steel duct, seven tanks approximately 200 gal each, and 41 Sea/Land containers, plus 31 trash dumpster (once retired from service)	26 ROBs
North of Corner of 2nd and A Street – West of Bldg. 71 Metal and plastic objects from size reduction of miscellaneous equipment, drums, boxes and tanks	2 ROBs
Area 69 North of Bldg. 64/65 Metal objects from size reduction of three Sea/Land containers, miscellaneous debris and other containers, plus Malinkrodt hoppers and other containers staged for decontamination	12 ROBs
Total	**74 ROBs**

Prohibited/non-conforming items (including tires, oils, antifreeze, glass, and asbestos-containing materials) to be removed during the preparation of this waste for size reduction, will be encountered at a rate of 1 percent of the total stream volume (~ 0.6 ROBs or 482 cubic feet). Oils, to be managed to TSCA-type incineration will account for less than 7% of the non-conforming items (~35 cubic feet, including additional 30 cubic feet drained from aerosol cans). Macroencapsulation will be required for 1 cubic foot of waste. Aerosol cans will represent 86 cubic feet (~18% of the non-conforming wastes), assumed to be drained, crushed and disposed in the OSDF. 10 cubic feet will be directed to recycling efforts already underway under separately funded programmatic scopes (primarily recyclable oils). Residues, contaminated tires, and asbestos-containing wastes will comprise the remaining 350 cubic feet of the non-conforming items, with NTS disposal as a basis. Each of these wastes will be containerized respective to identified disposal path to facilitate transfer to receiving programs and/or to support disposal shipping.

Breakout of Yard Scrap Non-Conforming Items by Percent

Residues & Contaminated to NTS	Aerosol	Oils	Rec	Pb
73%	18%	7%	2%	<1%

Roll-off boxes (considered as excess containers) includes a total of 167 containers used as a fleet to ferry compliant wastes to the OSDF or for other on-site transport purposes. These containers are rated 30 cubic yard and are estimated to carry 27 cubic yard loads. At the end of their required service period at the FEMP the ROBs will be inspected for determining whether they remain serviceable. All 167 ROBs are expected to be in serviceable condition at the completion of the FEMP closure work and be available for transfer to other Federal sites for continued use, based on continued maintenance and upkeep under separately budgeted maintenance programs. ROBs processed to another Federal site will require the gaining site to pay all gross decontamination, packaging, loading and shipping costs. All site ROBs are expected to be processed to other Federal sites under this property management program (by others).

Rolling Stock

Rolling stock consists of 580 individual pieces, including a crane and a bulldozer at the large end of the scale. Rolling stock dismantlement will be performed at a central location (with the exception of the crane and bulldozer dismantlements), to facilitate an assembly-line approach for removal of non-conforming items, preparation, size reduction, loading and disposition. To promote a safe work environment, glass will be removed from each of the vehicles prior to size reduction. Size reduction will be performed as necessary to permit meeting the OSDF WAC and facilitating transport via ROB to an OSDF transfer area. Size reduction operations will utilize hydraulic-operated track-mounted shear equipment available at the FEMP.

Rolling Stock is categorized as follows per existing site records (CMMS), reflecting 580 individual pieces and representing an estimated 253 ROB loads upon completion of sizing:

Rolling Stock Inventory Summary

Category	Quantity
Vehicles	131
Heavy Equipment	23
Fork Trucks	67
Stackers	15
Trailers	38
Miscellaneous Attachments	306
Total	**580**

Prohibited/non-conforming items (including batteries, tires, cylinders, oils, and other fluids) to be removed during the preparation of this waste for size reduction for disposal in the OSDF, will be encountered at a rate of 2% of the total stream volume (~ 3800 cubic feet). Oils, to be managed to TSCA-type incineration will account for less than 5 % of the non-conforming items (~ 175 cubic feet). Broken batteries to be processed through off-site macro-encapsulation treatment will account for less than 1% of the non-conforming items (~ 25 cubic feet). Tires that cannot readily be decontaminated for release will

account for 16% of the non-conforming items and will be sized and shipped to NTS. The remaining 79% of the non-conforming items (including releasable tires, sealed batteries, 50% of oils and all vehicle antifreeze fluids) will be transferred to existing recycling programmatic scopes. Glass will be removed from 221 vehicles, but will be placed into ROBs for OSDF disposal. Each of the non-conforming waste streams will be separately containerized to facilitate transfer to receiving programs or to support disposal shipping.

Breakout of Rolling Stock Non-Conforming Items by Percent

Recyclables (Tires, Oils, Batteries, Fluids)	Tires	Oils	Pb
79%	16%	5%	<1%

The following table combines the prohibited/non-conforming wastes from both of the activities under this task, to support the discussion of the disposition activities that follows.

Management Approach for Prohibited Items

Waste Type	Anticipated Volume (CF)	Management Approach	Disposal
Aerosol Cans	86	Collect in 13 drums, puncture and crush cans (~20 CF crushed) Collect liquids (~1540 gallons) in 28 drums and transfer to bulking to incinerate off-site (subcontract)	Transfer to OSDF Ash to NTS
Lead-Acid Batteries and Tires to Recycling	3002	Collect, decontaminate and containerize in 3 ISOs and on 20 pallets	Release to recycler
Non-Recyclable Lead	26	Collect in 8 drums	Ship to E-Care for Macro + Disposal
Residues/Other Wastes	958	Collect in 1 ROB	Transfer to WPRAP for E-Care disposal
Total	**4,282**		

1) Subtask #1 - Planning

1.1) Plan/Scope - Planning

- Develop task orders and procedures to guide the work activities, and incorporate requirements and safety goals.
- Perform project planning support activities, including training, safety analyses, technical review board, DOT determinations, ISRC reviews, and readiness activities.
- Maintain performance/status and other tracking tools for the project activity and perform project oversight.

- Identify equipment requiring size reduction.

- Perform planning support activities, including interface with property management program and ongoing transfer projects to initiate excessing process as ROB fleet size needs reduce.

1.2) Quantification - Planning

In addition to quantitative information provided above, the planning activities for this waste are based on providing three task orders for the processes: one task order for yard scrap downsizing, loading, and transferring (updated for each of the 10 locations for the operations), plus one task order for vehicle moves and preparation (stripping) activities (designed to be used at a central processing location) plus one task order for the sizing of stripped rolling stock (assuming a central processing location).

Planning activities also include an annual review/revision of the procedures that support the operations and the development of task order modules for the operations (lead for decontamination/recycling, tires for decontamination/recycling, organic liquids collection and transfer to treatment, packaging/transfer of non-recyclable lead, and aerosol cans collection).

2) Subtask #2 - Characterization

2.1) Plan/Scope - Characterization

- Sort yard scrap to remove prohibited items and items requiring other processing.

- Verify the primary wastes meet the OSDF Waste Acceptance Criteria (WAC).

- Perform visual inspections and develop summary documentation of ROB condition at end of FEMP mission, to support excessing processes.

2.2) Quantification - Characterization

In addition to quantitative information provided above, characterization of residues recovered from this operation assumes these wastes can transferred to WPRAP SP-7 (or equivalent bulk delivery location) and be managed in bulk. No intrusive sampling/characterization is anticipated to be required for this waste.

3) Subtask #3 - Processing

3.1) Plan/Scope - Processing

- Perform treatment to support disposition of prohibited items and items requiring other processing, including decanting, aerosol can puncturing, and specific chemical treatments as required.
- Procure supplies such as spare parts and tools.
- Operation of satellite change area (SCA) and providing personal protective equipment (PPE).
- Move wastes to size reduction processing location(s) from current location(s) as applicable (majority of rolling stock).
- Locate and prepare size reduction operations at each of the 10 inventoried locations (yard scrap).
- Provide waste acceptance and characterization field support (WAO and WC) to determine disposition requirements in the field.
- Load 327 ROBs with sized wastes and move to and dump at identified OSDF transfer area.
- Transfer residues ROB to SP7 and dump.
- Collect 3,002 CF recyclables and transfer to programmatic efforts for recycling.

3.2) Quantification - Processing

In addition to quantitative information provided above, the processing activities for the waste are based on a standard crew with an estimated throughput of 6 ROBs downsized and filled per day and up to 10 ROBs moved per day.

4) Subtask #4 - Packaging

4.1) Plan/Scope - Packaging

- Containerize/label prohibited items and/or items requiring off-site processing, amending with specified absorbent materials.

4.2) Quantification - Packaging

In addition to quantitative information provided above, the packaging activities for this waste are based on drumming/labeling of ~26 CF of lead requiring off-site macroencapsulation. Throughput is estimated at 46 drums per day and movement of 60 drums per day. No other wastes are expected to require packaging for off-site disposal.

5) Subtask #5 - Shipping

5.1) Plan/Scope - Shipping

- Containerized prohibited item wastes will be included with other planned programmatic shipments of recyclable or larger volume wastes for treatment, with the exception of lead requiring macroencapsulation and residue wastes.

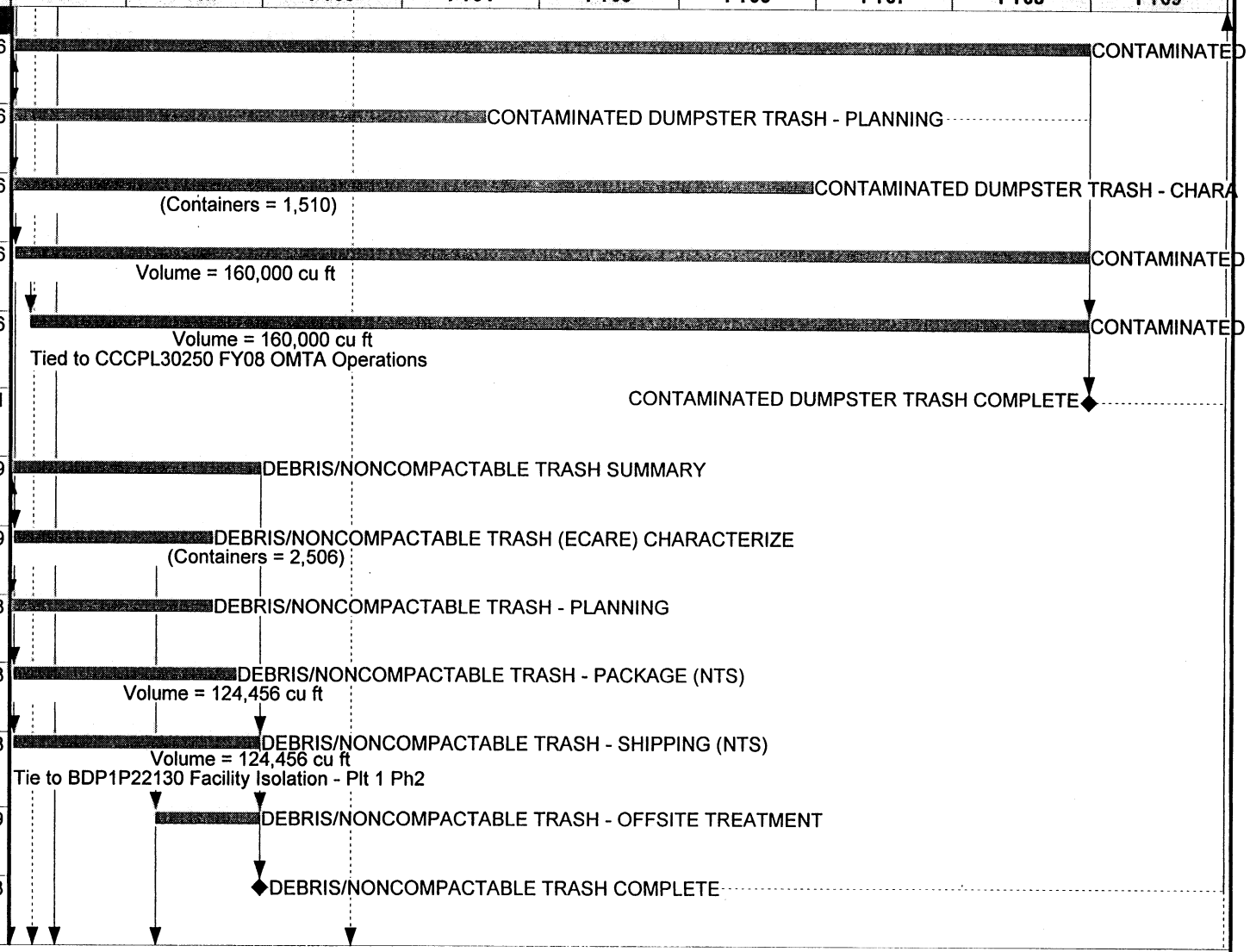
5.2) Quantification - Shipping

In addition to quantitative information provided above, the shipping activities for this waste include shipment of 8 drums of lead (containing ~26 CF of lead for macroencapsulation), which is based on loading/shipping 46 drums per day. This shipment will be supported with package determinations in advance of generation (see characterization sub-task). No other wastes will be shipped off-site for disposition.

SECTION 3

2.0 SCHEDULE

Activity ID	Orig Dur	Baseline Early start	Baseline Early finish	Total Float
TRASH/DEBRIS/YARD SCRAP/ROLLOFF BOXES				
MMMCH000	1,573*	04DEC00	30SEP08	46
MMMC16010	691	04DEC00	13MAY04	46
MMMC16020	1,170	04DEC00	28SEP06	46
MMMC16040	1,568	12DEC00	30SEP08	46
MMMC16050	1,547	22JAN01	30SEP08	46
MMPBS11002	0		30SEP08	201
MMMC26H00	366*	04DEC00	30SEP02	449
MMMC26120	291	12DEC00	23MAY02	449
MMMC26110	296	04DEC00	23MAY02	668
MMMC26140	325	12DEC00	25JUL02	598
MMMC26150	361	12DEC00	30SEP02	598
MMMC26160	154	26DEC01	30SEP02	449
MMPBS11003	0		30SEP02	1,408



Start Date	01DEC00	BLCF - MM01	Sheet 7 of 13
Finish Date	30SEP09		
Data Date	01DEC00		
Run Date	12SEP01 10:13		

FLUOR FERNALD, INC

Waste Management Baseline Schedule #2

Early Bar
Progress Bar
Critical Activity

Comment Ref: R1-D-559

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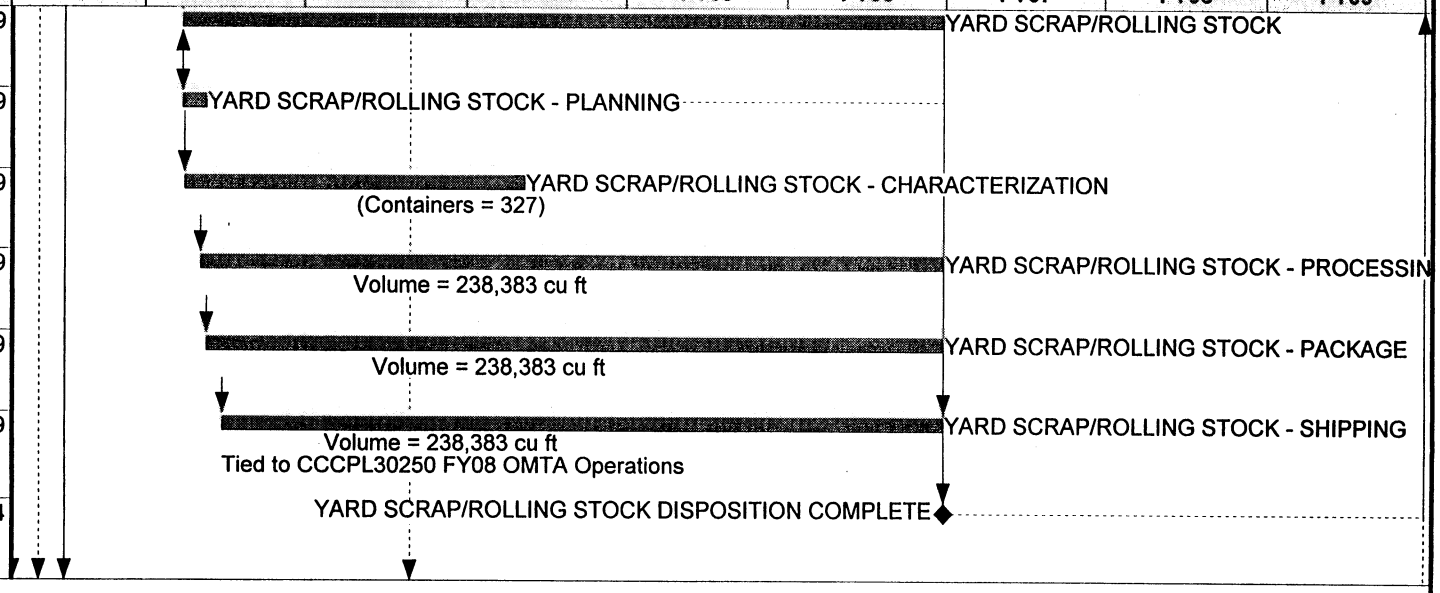
Activity ID	Orig Dur	Baseline Early start	Baseline Early finish	Total Float
MMMC36H00	958*	26DEC01	28SEP06	449
MMMC36310	30	26DEC01	19FEB02	449
MMMC36320	426	31DEC01	12FEB04	449
MMMC36330	937	04FEB02	28SEP06	449
MMMC36340	929	19FEB02	28SEP06	449
MMMC36350	907	28MAR02	28SEP06	449
MMPBS11004	0		28SEP06	604



Start Date	01DEC00	BLCF - MM01	Sheet 8 of 13
Finish Date	30SEP09		
Data Date	01DEC00		
Run Date	12SEP01 10:13		

FLUOR FERNALD, INC

Waste Management Baseline Schedule #2

Early Bar
Progress Bar
Critical Activity

Comment Ref: R1-D-559

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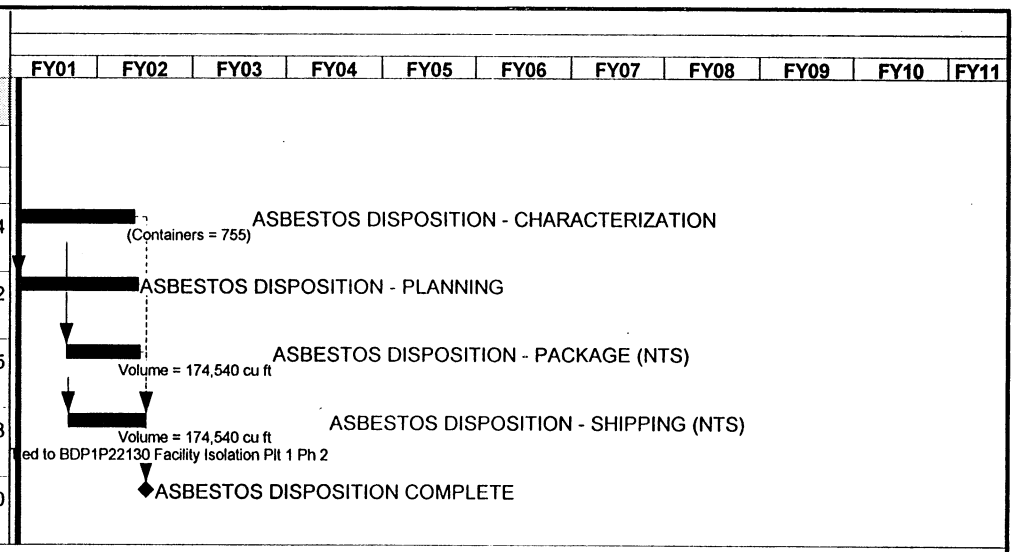
SECTION 3

3.0 MANPOWER PLANS

Activity ID	Activity Description	Early Start	Early Finish	Orig Dur
M PBS 11 - WASTE MANAGEMENT				
1.1.M.D ASBESTOS DISPOSITION				
MMMD1 ASBESTOS DISPOSITION				
MMMD16420	ASBESTOS DISPOSITION - CHARACTERIZATION	04DEC00	21FEB02	244
MMMD16410	ASBESTOS DISPOSITION - PLANNING	04DEC00	07MAR02	252
MMMD16440	ASBESTOS DISPOSITION - PACKAGE (NTS)	04JUN01	13MAR02	155
MMMD16450	ASBESTOS DISPOSITION - SHIPPING (NTS)	12JUN01	04APR02	163
MMPBS11005	ASBESTOS DISPOSITION COMPLETE		04APR02	0



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Start Date	01DEC00
Finish Date	30SEP09
Data Date	01DEC00
Run Date	12SEP01 10:18

BLCF - MM01

Sheet 1 of 1

WASTE MANAGEMENT

1.1.M.D ASBESTOS DISPOSITION

Early Bar
Progress Bar
Critical Activity

Date	Revision	Checked	Approved
	R1-D-559		
	R1-D-589		
	R1-D-595		
	R1-D-598 & 600		
	F11-005		
	F11-008		

Manpower Planning Sheet (CR2)

MPS # 1MC01 CONTAMINATED DUMPSTER TRASH

	DRIVERS	START DATE	END DATE	TOT	FY 2001 Q1	Q2	Q3	Q4	FY 2002 Q1	Q2	Q3	Q4	FY 2003 Q1	Q2	Q3	Q4	FY 2004 Q1	Q2	Q3	Q4	FY 2005 Q1	Q2	Q3	Q4	FY 2006 Q1	Q2	Q3	Q4
206	ADMIN COMPLEX D&D	10/01/2004	07/03/2006																		xxx	xxx	xxx	xxx	xxx	xxx	xxx	x
207	EAST WAREHOUSE D&D	10/04/2004	12/14/2004																		xxx							
208	ELECTRICAL STATION D&D	01/03/2005	12/29/2005																			xxx	xxx	xxx	xxx			
209	PLANT 1 PHASE II D&D	10/04/2004	10/12/2005																		xxx	xxx	xxx	xxx	x			
216	Electrical Station (Garage/Heavy Equip. Bldg.)	01/10/2005	03/28/2005																			xxx						
217	Electrical Station (Main Electrical/Substations)	07/10/2006	09/28/2006																									xxx
218	General Sump Complex D&D	10/01/2001	01/07/2003						xxx	xxx	xxx	xxx	xxx	x														
219	General Sump (Elec. Power Center Bldg.)	04/01/2004	07/19/2004																xxx	x								
220	Plant 2 Complex D&D	10/01/2001	04/01/2004						xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	x									
221	Plant 3 Complex D&D	10/01/2001	12/10/2002						xxx	xxx	xxx	xxx	xxx															
222	Plant 8 Complex D&D	10/01/2001	06/26/2003						xxx	xxx	xxx	xxx	xxx	xxx	xxx													
223	Liquid Storage D&D	10/01/2002	03/31/2005										xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx						
224	Lab Complex D&D	10/01/2004	10/31/2005																		xxx	xxx	xxx	xxx	x			
225	Pilot Plant Complex D&D	10/01/2003	09/27/2005														xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx				
301	OSDF Summary Schedule	04/01/2004	12/23/2009																xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
411	AWWT Operations	10/02/2000	12/31/2009		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
502	WASTE PIT SHIP/DISPOSAL OPERATIONS	10/02/2000	08/01/2005		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xx				
601	Soils Excavation Project Summary	10/01/2003	12/31/2009														xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
705	SILOS 1, 2, & 3 CONSTRUCTION & CAT	04/01/2003	04/01/2005												xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	x					
707	SILOS 1, 2, & 3 OPERATIONS	10/03/2005	03/30/2007																						xxx	xxx	xxx	xxx
709	SILOS 1, 2, & 3 SAFE SHUTDOWN and D&D	04/02/2007	03/31/2008																									
801	Nuclear Materials Summary	10/02/2000	05/20/2002		xxx	xxx	xxx	xxx	xxx	xxx	xx																	
1001	Mixed Waste Summary	10/02/2000	09/30/2003		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx												
1101	Low Level Waste Summary	10/02/2000	09/30/2005		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx				

				TOT	FY 2001 Q1	Q2	Q3	Q4	FY 2002 Q1	Q2	Q3	Q4	FY 2003 Q1	Q2	Q3	Q4	FY 2004 Q1	Q2	Q3	Q4	FY 2005 Q1	Q2	Q3	Q4	FY 2006 Q1	Q2	Q3	Q4
	Administration	Clerks		0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Craft Labor	Carpenter		0.60	0	0	0	0.1	0	0	0	0.1	0	0	0	0.1	0	0	0	0.1	0	0	0	0.1	0	0	0	0.1
	Environmental Safety & H	Rad Engineer		0.90	0.1	0.1	0.1	0.1	0	0.1	0.1	0.1	0	0	0	0.1	0	0	0.1	0	0	0	0	0	0	0	0	0
	Environmental Safety & H	Rad Tech		11.90	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.9	0.8	0.9	0.8	0.9	0.8	0.6	0	0	0	0.1	0	0	0.1	0	0
	Environmental Safety & H	Safety Engineer		0.90	0	0.1	0	0.1	0.1	0.1	0	0.1	0.1	0.1	0	0.1	0	0.1	0	0	0	0	0	0	0	0	0	0
	Environmental Safety & H	Safety Tech.		0.90	0.1	0.1	0	0.1	0	0.1	0	0.1	0.1	0.1	0	0.1	0	0.1	0	0	0	0	0	0	0	0	0	0
	General Labor	Hazwat		50.90	3.5	3.5	3.5	3.5	3.5	3.4	3.5	3.5	3.4	3.5	3.5	3.6	2.9	2.8	1.1	0.1	0.2	0.1	0.1	0.2	0.1	0.2	0.1	0.1
	Procurement	Material Property Control Rep.		2.50	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0	0	0	0	0	0	0	0	0
	Project Management	Tech/Program Support Rep.		0.80	0.1	0.1	0	0.1	0	0.1	0.1	0	0	0.1	0	0	0.1	0	0.1	0	0	0	0	0	0	0	0	0
Op Sup.	Maintenance	Project Support Manager		9.80	0.7	0.5	0.5	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.5	0	0	0	0	0	0	0	0	0
	Transportation Labor	Heavy Equipment Operator		2.10	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0	0	0	0	0	0	0	0	0

Manpower Planning Sheet (CR2)

MPS # 1MC01 CONTAMINATED DUMPSTER TRASH

DRIVERS	START DATE	END DATE	FY 2007 Q1	FY 2007 Q2	FY 2007 Q3	FY 2007 Q4	FY 2008 Q1	FY 2008 Q2	FY 2008 Q3	FY 2008 Q4	FY 2009 Q1	FY 2009 Q2	FY 2009 Q3	FY 2009 Q4	FY 2010 Q1	FY 2010 Q2	FY 2010 Q3	FY 2010 Q4	FY 2011 Q1	FY 2011 Q2	FY 2011 Q3	FY 2011 Q4
206 ADMIN COMPLEX D&D	10/01/2004	07/03/2006																				
207 EAST WAREHOUSE D&D	10/04/2004	12/14/2004																				
208 ELECTRICAL STATION D&D	01/03/2005	12/29/2005																				
209 PLANT 1 PHASE II D&D	10/04/2004	10/12/2005																				
216 Electrical Station (Garage/Heavy Equip. Bld	01/10/2005	03/28/2005																				
217 Electrical Station (Main Electrical/Substation	07/10/2006	09/28/2006																				
218 General Sump Complex D&D	10/01/2001	01/07/2003																				
219 General Sump (Elec. Power Center Bldg.)	04/01/2004	07/19/2004																				
220 Plant 2 Complex D&D	10/01/2001	04/01/2004																				
221 Plant 3 Complex D&D	10/01/2001	12/10/2002																				
222 Plant 8 Complex D&D	10/01/2001	06/26/2003																				
223 Liquid Storage D&D	10/01/2002	03/31/2005																				
224 Lab Complex D&D	10/01/2004	10/31/2005																				
225 Pilot Plant Complex D&D	10/01/2003	09/27/2005																				
301 OSDF Summary Schedule	04/01/2004	12/23/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx							
411 AWWT Operations	10/02/2000	12/31/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx							
502 WASTE PIT SHIP/DISPOSAL OPERATION	10/02/2000	08/01/2005																				
601 Soils Excavation Project Summary	10/01/2003	12/31/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx							
705 SILOS 1, 2, & 3 CONSTRUCTION & CAT	04/01/2003	04/01/2005																				
707 SILOS 1, 2, & 3 OPERATIONS	10/03/2005	03/30/2007	xxx	xxx																		
709 SILOS 1, 2, & 3 SAFE SHUTDOWN and D	04/02/2007	03/31/2008			xxx	xxx	xxx	xxx														
801 Nuclear Materials Summary	10/02/2000	05/20/2002																				
1001 Mixed Waste Summary	10/02/2000	09/30/2003																				
1101 Low Level Waste Summary	10/02/2000	09/30/2005																				

		FY 2007 Q1	FY 2007 Q2	FY 2007 Q3	FY 2007 Q4	FY 2008 Q1	FY 2008 Q2	FY 2008 Q3	FY 2008 Q4	FY 2009 Q1	FY 2009 Q2	FY 2009 Q3	FY 2009 Q4	FY 2010 Q1	FY 2010 Q2	FY 2010 Q3	FY 2010 Q4	FY 2011 Q1	FY 2011 Q2	FY 2011 Q3	FY 2011 Q4
Administration	Clerks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Craft Labor	Carpenter	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Rad Engineer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Rad Tech	0.1	0	0	0.1	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Safety Engineer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Safety Tech.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
General Labor	Hazwat	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0	0	0	0	0	0	0	0	0	0	0	0
Procurement	Material Property Control Rep.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Management	Tech/Program Support Rep.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance	Project Support Manager	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transportation Labor	Heavy Equipment Operator	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Manpower Planning Sheet (CR2)

MPS # 1MC01 CONTAMINATED DUMPSTER TRASH

DRIVERS			START DATE	END DATE	TOT	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				FY 2006			
						Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	Transportation Labor	Motor Vehicle Operator			14.40	1	0.9	0.9	0.8	1	1	1	1	1	1	0.9	0.8	0.8	0.8	0.6	0.1	0.1	0	0	0.1	0	0.1	0	0.1
	Transportation Labor	Transportation Laborer			3.00	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0	0	0.1	0	0	0.1	0	0	0.1
	Waste Management	Waste Engineer			2.50	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0	0	0.1	0	0	0.1	0	0	0.1
RTR	QA/QC	QA Engineer			0.30	0.1	0	0	0.1	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				Sheet Totals:	101.50	7.00	6.60	6.40	6.80	6.70	6.90	6.70	7.00	6.80	7.00	6.50	7.00	5.90	6.00	3.40	0.30	0.30	0.30	0.20	0.40	0.30	0.40	0.10	0.50

Manpower Planning Sheet (CR2)

MPS # 1MC01 CONTAMINATED DUMPSTER TRASH

DRIVERS	START DATE	END DATE	FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Transportation Labor	Motor Vehicle Operator		0	0.1	0	0.1	0	0.1	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0
Transportation Labor	Transportation Laborer		0	0	0.1	0	0	0.1	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0
Waste Management	Waste Engineer		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QA/QC	QA Engineer		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Sheet Totals:	0.20	0.20	0.20	0.30	0.20	0.30	0.20	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Manpower Planning Sheet (CR2)

MPS # 1MC02 DEBRIS/NON-COMPACTIBLE TRASH

	DRIVERS	START DATE	END DATE	TOT	FY 2001 Q1	Q2	Q3	Q4	FY 2002 Q1	Q2	Q3	Q4	FY 2003 Q1	Q2	Q3	Q4	FY 2004 Q1	Q2	Q3	Q4	FY 2005 Q1	Q2	Q3	Q4	FY 2006 Q1	Q2	Q3	Q4
206	ADMIN COMPLEX D&D	10/01/2004	07/03/2006																		xxx	xxx	xxx	xxx	xxx	xxx	xxx	x
207	EAST WAREHOUSE D&D	10/04/2004	12/14/2004																		xxx							
208	ELECTRICAL STATION D&D	01/03/2005	12/29/2005																			xxx	xxx	xxx	xxx			
209	PLANT 1 PHASE II D&D	10/04/2004	10/12/2005																		xxx	xxx	xxx	xxx	x			
216	Electrical Station (Garage/Heavy Equip. Bldg.)	01/10/2005	03/28/2005																			xxx						
217	Electrical Station (Main Electrical/Substations)	07/10/2006	09/28/2006																									xxx
218	General Sump Complex D&D	10/01/2001	01/07/2003						xxx	xxx	xxx	xxx	xxx	x														
219	General Sump (Elec. Power Center Bldg.)	04/01/2004	07/19/2004																xxx	x								
220	Plant 2 Complex D&D	10/01/2001	04/01/2004						xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	x									
221	Plant 3 Complex D&D	10/01/2001	12/10/2002						xxx	xxx	xxx	xxx	xxx															
222	Plant 8 Complex D&D	10/01/2001	06/26/2003						xxx	xxx	xxx	xxx	xxx	xxx	xxx													
223	Liquid Storage D&D	10/01/2002	03/31/2005										xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx						
224	Lab Complex D&D	10/01/2004	10/31/2005																		xxx	xxx	xxx	xxx	x			
225	Pilot Plant Complex D&D	10/01/2003	09/27/2005														xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx				
301	OSDF Summary Schedule	04/01/2004	12/23/2009																xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
411	AWWT Operations	10/02/2000	12/31/2009		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
502	WASTE PIT SHIP/DISPOSAL OPERATIONS	10/02/2000	08/01/2005		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xx				
601	Soils Excavation Project Summary	10/01/2003	12/31/2009														xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
705	SILOS 1, 2, & 3 CONSTRUCTION & CAT	04/01/2003	04/01/2005												xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	x					
707	SILOS 1, 2, & 3 OPERATIONS	10/03/2005	03/30/2007																						xxx	xxx	xxx	xxx
709	SILOS 1, 2, & 3 SAFE SHUTDOWN and D&D	04/02/2007	03/31/2008																									
801	Nuclear Materials Summary	10/02/2000	05/20/2002		xxx	xxx	xxx	xxx	xxx	xxx	xx																	
1001	Mixed Waste Summary	10/02/2000	09/30/2003		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx												
1101	Low Level Waste Summary	10/02/2000	09/30/2005		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx				

	Administration	Clerks	0.80	0.2	0.2	0.2	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Craft Labor	Carpenter	1.20	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Environmental Safety & H	Rad Engineer	8.20	5.2	0.5	0.4	0.3	0.4	0.3	1.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Environmental Safety & H	Rad Tech	20.20	3.2	3.7	3.1	2.6	2.6	2.6	2.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Environmental Safety & H	Safety Engineer	8.20	6	0.5	0.2	0.2	0.2	0.2	0.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Environmental Safety & H	Safety Tech.	9.00	1.7	1.3	1.3	1.1	1.1	1.1	1.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	General Labor	Hazwat	78.80	11.1	14.6	12.5	10.4	10.4	10.3	9.3	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Procurement	Material Property Control Rep.	3.80	0.9	0.5	0.5	0.5	0.5	0.4	0.4	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Project Management	Project Mgr.	0.80	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Project Management	Tech/Program Support Rep.	1.90	1	0.2	0.2	0.1	0.1	0.2	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ops Supv	Maintenance	Project Support Manager	14.90	2.3	2.5	3.1	1.8	1.8	1.8	1.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Manpower Planning Sheet (CR2)

MPS # 1MC02 DEBRIS/NON-COMPACTIBLE TRASH

DRIVERS	START DATE	END DATE	FY 2007 Q1	FY 2007 Q2	FY 2007 Q3	FY 2007 Q4	FY 2008 Q1	FY 2008 Q2	FY 2008 Q3	FY 2008 Q4	FY 2009 Q1	FY 2009 Q2	FY 2009 Q3	FY 2009 Q4	FY 2010 Q1	FY 2010 Q2	FY 2010 Q3	FY 2010 Q4	FY 2011 Q1	FY 2011 Q2	FY 2011 Q3	FY 2011 Q4
206 ADMIN COMPLEX D&D	10/01/2004	07/03/2006																				
207 EAST WAREHOUSE D&D	10/04/2004	12/14/2004																				
208 ELECTRICAL STATION D&D	01/03/2005	12/29/2005																				
209 PLANT 1 PHASE II D&D	10/04/2004	10/12/2005																				
216 Electrical Station (Garage/Heavy Equip. Bld	01/10/2005	03/28/2005																				
217 Electrical Station (Main Electrical/Substation	07/10/2006	09/28/2006																				
218 General Sump Complex D&D	10/01/2001	01/07/2003																				
219 General Sump (Elec. Power Center Bldg.)	04/01/2004	07/19/2004																				
220 Plant 2 Complex D&D	10/01/2001	04/01/2004																				
221 Plant 3 Complex D&D	10/01/2001	12/10/2002																				
222 Plant 8 Complex D&D	10/01/2001	06/26/2003																				
223 Liquid Storage D&D	10/01/2002	03/31/2005																				
224 Lab Complex D&D	10/01/2004	10/31/2005																				
225 Pilot Plant Complex D&D	10/01/2003	09/27/2005																				
301 OSDF Summary Schedule	04/01/2004	12/23/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx							
411 AWWT Operations	10/02/2000	12/31/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx							
502 WASTE PIT SHIP/DISPOSAL OPERATION	10/02/2000	08/01/2005																				
601 Soils Excavation Project Summary	10/01/2003	12/31/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx							
705 SILOS 1, 2, & 3 CONSTRUCTION & CAT	04/01/2003	04/01/2005																				
707 SILOS 1, 2, & 3 OPERATIONS	10/03/2005	03/30/2007	xxx	xxx																		
709 SILOS 1, 2, & 3 SAFE SHUTDOWN and D	04/02/2007	03/31/2008			xxx	xxx	xxx	xxx														
801 Nuclear Materials Summary	10/02/2000	05/20/2002																				
1001 Mixed Waste Summary	10/02/2000	09/30/2003																				
1101 Low Level Waste Summary	10/02/2000	09/30/2005																				

		FY 2007 Q1	FY 2007 Q2	FY 2007 Q3	FY 2007 Q4	FY 2008 Q1	FY 2008 Q2	FY 2008 Q3	FY 2008 Q4	FY 2009 Q1	FY 2009 Q2	FY 2009 Q3	FY 2009 Q4	FY 2010 Q1	FY 2010 Q2	FY 2010 Q3	FY 2010 Q4	FY 2011 Q1	FY 2011 Q2	FY 2011 Q3	FY 2011 Q4
Administration	Clerks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Craft Labor	Carpenter	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Rad Engineer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Rad Tech	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Safety Engineer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Safety Tech.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
General Labor	Hazwat	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Procurement	Material Property Control Rep.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Management	Project Mgr.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Management	Tech/Program Support Rep.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance	Project Support Manager	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Manpower Planning Sheet (CR2)

MPS # 1MC02 DEBRIS/NON-COMPACTIBLE TRASH

DRIVERS		START DATE	END DATE	TOT	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				FY 2006			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	QA/QC	QA Engineer		1.20	0.3	0.3	0.3	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Transportation Labor	Heavy Equipment Operator		3.60	0.5	0.7	0.6	0.5	0.4	0.5	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Transportation Labor	Motor Vehicle Operator		34.80	5	6.3	5.4	4.5	4.5	4.5	4.3	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Transportation Labor	Transportation Laborer		0.20	0	0	0	0.1	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Waste Management	Waste Engineer		8.70	1.8	1.4	1	1	0.9	1.1	1.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			Sheet Totals:	196.30	39.50	33.00	29.10	23.90	23.10	23.20	23.80	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Manpower Planning Sheet (CR2)

MPS # 1MC02 DEBRIS/NON-COMPACTIBLE TRASH

DRIVERS	START DATE	END DATE	FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
QA/QC	QA Engineer		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transportation Labor	Heavy Equipment Operator		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transportation Labor	Motor Vehicle Operator		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transportation Labor	Transportation Laborer		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Waste Management	Waste Engineer		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Sheet Totals:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Manpower Planning Sheet (CR2)

MPS # 1MC03 YARD SCRAP & ROLLING STOCK

DRIVERS			START DATE	END DATE	TOT	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				FY 2006			
						Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
						#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er
	Administration	Clerks			0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Craft Labor	Carpenter			0.10	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Environmental Safety & H	Rad Engineer			0.80	0	0	0	0	0	0.7	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0
	Environmental Safety & H	Rad Tech			3.50	0	0	0	0	0	0.3	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.3
	Environmental Safety & H	Safety Engineer			1.10	0	0	0	0	0	1	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Environmental Safety & H	Safety Tech.			0.90	0	0	0	0	0	0.6	0	0	0.1	0	0	0.1	0	0	0.1	0	0	0	0	0	0	0	0	0
	General Labor	Hazwat			5.70	0	0	0	0	0	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	Procurement	Material Property Control Rep.			0.30	0	0	0	0	0	0.1	0	0	0.1	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0
	Project Management	Project Mgr.			0.10	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Project Management	Tech/Program Support Rep.			0.30	0	0	0	0	0	0.1	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0
Ops Supv	Maintenance	Project Support Manager			1.10	0	0	0	0	0	0.2	0.1	0.1	0.1	0	0.1	0	0	0	0.1	0	0.1	0	0	0.1	0	0.1	0	0.1
	Transportation Labor	Heavy Equipment Operator			2.30	0	0	0	0	0	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0
	Transportation Labor	Motor Vehicle Operator			2.00	0	0	0	0	0	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	Transportation Labor	Transportation Laborer			3.70	0	0	0	0	0	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	Waste Management	Waste Engineer			5.80	0	0	0	0	0	0.4	0.7	0.6	0.7	0.6	0.7	0.6	0.6	0.4	0	0	0.1	0	0	0.1	0	0	0.1	0.2
				Sheet Totals:	27.70	0.00	0.00	0.00	0.00	0.00	4.20	1.80	1.70	1.80	1.70	1.70	1.60	1.60	1.30	1.00	1.00	1.10	0.90	1.00	1.10	0.90	1.10	1.00	1.20

Manpower Planning Sheet (CR2)

MPS # 1MC03 YARD SCRAP & ROLLING STOCK

DRIVERS	START DATE	END DATE	FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
			#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er	#Er
Administration	Clerks		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Craft Labor	Carpenter		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Rad Engineer		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Rad Tech		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Safety Engineer		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Safety Tech.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
General Labor	Hazwat		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Procurement	Material Property Control Rep.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Management	Project Mgr.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Management	Tech/Program Support Rep.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance	Project Support Manager		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transportation Labor	Heavy Equipment Operator		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transportation Labor	Motor Vehicle Operator		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transportation Labor	Transportation Laborer		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Waste Management	Waste Engineer		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Sheet Totals:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

SECTION 3

4.0 ESTIMATE

MMMC1

CONTAMINATED DUMPSTER TRASH

09/07/2001
11:16 AM

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

PBS: OHFN11
WBS: 1.1.M.C
CTRL ACCT: MMMC
CHARGE NO: MMMC1
COMMENT NO: R1-F11-006, R1-D-595, R1-F11-008

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: BUYCON **BUYER/CONTRACTS ADMN** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Yr Total Cost:	419	0	0	0	0	0	0	0	0	0
Cum Total Cost:	419	419	419	419	419	419	419	419	419	419

Resource: CRPNTR **CARPENTER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	43.0	48.0	48.0	49.0	72.0	53.0	24.0	24.0	0.0	0.0
Cum Hours:	43.0	91.0	139.0	188.0	260.0	313.0	337.0	361.0	361.0	361.0
Yr Total Cost:	1,332	1,565	1,657	1,792	2,789	2,193	1,077	1,135	0	0
Cum Total Cost:	1,332	2,896	4,554	6,345	9,134	11,327	12,404	13,539	13,539	13,539

Resource: HAZWAT **HAZWAT** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	5,028.0	6,072.0	6,097.0	2,957.0	238.0	215.0	205.0	225.0	0.0	0.0
Cum Hours:	5,028.0	11,100.0	17,197.0	20,154.0	20,392.0	20,607.0	20,812.0	21,037.0	21,037.0	21,037.0
Yr Total Cost:	144,756	184,005	195,700	100,509	8,569	8,271	8,549	9,890	0	0
Cum Total Cost:	144,756	328,761	524,461	624,970	633,539	641,810	650,359	660,248	660,248	660,248

Resource: HEOOPR **HEAVY EQUIP OPERATOR** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	200.0	240.0	240.0	156.0	24.0	24.0	24.0	24.0	0.0	0.0
Cum Hours:	200.0	440.0	680.0	836.0	860.0	884.0	908.0	932.0	932.0	932.0
Yr Total Cost:	6,292	7,947	8,418	5,794	944	1,009	1,094	1,153	0	0
Cum Total Cost:	6,292	14,239	22,657	28,452	29,396	30,405	31,498	32,651	32,651	32,651

INCLUDES ESCALATION COSTS

09/07/2001
11:16 AM

PBS: OHFN11
WBS: 1.1.M.C
CTRL ACCT: MMMC
CHARGE NO: MMMC1
COMMENT NO: R1-F11-006, R1-D-595, R1-F11-008

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: INHTEC **INDUST HYGIENIST TEC** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	111.0	120.0	128.0	84.0	12.0	12.0	12.0	12.0	0.0	0.0
Cum Hours:	111.0	231.0	359.0	443.0	455.0	467.0	479.0	491.0	491.0	491.0
Yr Total Cost:	4,184	4,761	5,379	3,738	566	604	655	691	0	0
Cum Total Cost:	4,184	8,944	14,323	18,061	18,626	19,231	19,886	20,576	20,576	20,576

RESOURCE TOTALS FOR: MAT300

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Units:	17,380.0	27,430.0	22,872.0	18,600.0	14,983.0	14,900.0	11,000.0	2,990.0	0.0	0.0
Cum Units:	17,380.0	44,810.0	67,682.0	86,282.0	101,265.0	116,165.0	127,165.0	130,155.0	130,155.0	130,155.0
Yr Total Cost:	17,380	28,171	24,124	20,167	16,700	17,089	12,982	3,631	0	0
Cum Total Cost:	17,380	45,551	69,674	89,842	106,542	123,631	136,614	140,245	140,245	140,245

Resource: MPCREP **MATL PROP CTRL REP** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	270.0	305.0	321.0	211.0	24.0	24.0	24.0	24.0	0.0	0.0
Cum Hours:	270.0	575.0	896.0	1,107.0	1,131.0	1,155.0	1,179.0	1,203.0	1,203.0	1,203.0
Yr Total Cost:	8,726	10,376	11,567	8,051	970	1,036	1,124	1,184	0	0
Cum Total Cost:	8,726	19,102	30,669	38,720	39,690	40,727	41,850	43,035	43,035	43,035

Resource: MVOOPR **MOTOR VEHICLE OPER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,230.0	1,716.0	1,644.0	1,025.0	120.0	120.0	120.0	120.0	0.0	0.0
Cum Hours:	1,230.0	2,946.0	4,590.0	5,615.0	5,735.0	5,855.0	5,975.0	6,095.0	6,095.0	6,095.0
Yr Total Cost:	35,498	52,128	52,897	34,925	4,331	4,627	5,016	5,287	0	0
Cum Total Cost:	35,498	87,626	140,523	175,447	179,778	184,406	189,422	194,709	194,709	194,709

INCLUDES ESCALATION COSTS

09/07/2001
11:16 AM

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

PBS: OHFN11
WBS: 1.1.M.C
CTRL ACCT: MMMC
CHARGE NO: MMMC1
COMMENT NO: R1-F11-006, R1-D-595, R1-F11-008

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: PJSMGR **PROJECT SUPPORT MGR** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	825.0	1,220.0	1,209.0	819.0	24.0	24.0	24.0	24.0	0.0	0.0
Cum Hours:	825.0	2,045.0	3,254.0	4,073.0	4,097.0	4,121.0	4,145.0	4,169.0	4,169.0	4,169.0
Yr Total Cost:	37,719	58,711	61,626	44,208	1,372	1,466	1,589	1,675	0	0
Cum Total Cost:	37,719	96,430	158,056	202,265	203,637	205,103	206,692	208,368	208,368	208,368

Resource: PRJMGR **PROJECT MANAGER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	20.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	20.0	20.0	20.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
Yr Total Cost:	1,783	0	0	1,053	0	0	0	0	0	0
Cum Total Cost:	1,783	1,783	1,783	2,836	2,836	2,836	2,836	2,836	2,836	2,836

Resource: QACENG **QA ENGINEER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	20.0	24.0	24.0	24.0	22.0	12.0	12.0	12.0	0.0	0.0
Cum Hours:	20.0	44.0	68.0	92.0	114.0	126.0	138.0	150.0	150.0	150.0
Yr Total Cost:	919	1,161	1,230	1,302	1,265	737	799	842	0	0
Cum Total Cost:	919	2,080	3,310	4,612	5,877	6,614	7,413	8,255	8,255	8,255

Resource: RADENG **RAD ENGINEER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	110.0	120.0	74.0	63.0	12.0	12.0	12.0	12.0	0.0	0.0
Cum Hours:	110.0	230.0	304.0	367.0	379.0	391.0	403.0	415.0	415.0	415.0
Yr Total Cost:	5,192	5,962	3,894	3,511	708	757	820	865	0	0
Cum Total Cost:	5,192	11,154	15,048	18,559	19,267	20,024	20,844	21,709	21,709	21,709

INCLUDES ESCALATION COSTS

09/07/2001
11:16 AM

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

PBS: OHFN11
WBS: 1.1.M.C
CTRL ACCT: MMMC
CHARGE NO: MMMC1
COMMENT NO: R1-F11-006, R1-D-595, R1-F11-008

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: RADTEC **RAD TECH** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,039.0	1,232.0	1,495.0	1,008.0	48.0	48.0	48.0	48.0	0.0	0.0
Cum Hours:	1,039.0	2,271.0	3,766.0	4,774.0	4,822.0	4,870.0	4,918.0	4,966.0	4,966.0	4,966.0
Yr Total Cost:	35,409	44,194	56,803	40,558	2,046	2,186	2,369	2,497	0	0
Cum Total Cost:	35,409	79,603	136,407	176,964	179,010	181,196	183,565	186,063	186,063	186,063

Resource: S&HENG **SAFETY ENGINEER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	124.0	158.0	125.0	77.0	12.0	12.0	12.0	12.0	0.0	0.0
Cum Hours:	124.0	282.0	407.0	484.0	496.0	508.0	520.0	532.0	532.0	532.0
Yr Total Cost:	6,164	8,267	6,928	4,519	746	797	864	911	0	0
Cum Total Cost:	6,164	14,431	21,359	25,878	26,624	27,421	28,285	29,196	29,196	29,196

RESOURCE TOTALS FOR: SERVSUB

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Units:	0.0	10,050.0	10,620.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Units:	0.0	10,050.0	20,670.0	20,670.0	20,670.0	20,670.0	20,670.0	20,670.0	20,670.0	20,670.0
Yr Total Cost:	0	10,321	11,201	0	0	0	0	0	0	0
Cum Total Cost:	0	10,321	21,523	21,523	21,523	21,523	21,523	21,523	21,523	21,523

Resource: TPSREP **TECH/PROG SUPT REP** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	95.0	93.0	48.0	39.0	12.0	12.0	12.0	12.0	0.0	0.0
Cum Hours:	95.0	188.0	236.0	275.0	287.0	299.0	311.0	323.0	323.0	323.0
Yr Total Cost:	4,936	5,086	2,781	2,392	780	833	903	952	0	0
Cum Total Cost:	4,936	10,023	12,803	15,196	15,975	16,809	17,712	18,664	18,664	18,664

INCLUDES ESCALATION COSTS

09/07/2001
11:16 AM

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

PBS: OHFN11
WBS: 1.1.M.C
CTRL ACCT: MMMC
CHARGE NO: MMMC1
COMMENT NO: R1-F11-006, R1-D-595, R1-F11-008

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: TRNLAB **TRANSPORT LABORER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	268.0	322.0	283.0	194.0	48.0	48.0	48.0	48.0	0.0	0.0
Cum Hours:	268.0	590.0	873.0	1,067.0	1,115.0	1,163.0	1,211.0	1,259.0	1,259.0	1,259.0
Yr Total Cost:	6,614	8,365	7,787	5,653	1,482	1,583	1,716	1,809	0	0
Cum Total Cost:	6,614	14,979	22,766	28,419	29,900	31,483	33,199	35,008	35,008	35,008

Resource: WSTENG **WASTE ENGINEER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	172.0	272.0	309.0	196.0	48.0	48.0	24.0	24.0	0.0	0.0
Cum Hours:	172.0	444.0	753.0	949.0	997.0	1,045.0	1,069.0	1,093.0	1,093.0	1,093.0
Yr Total Cost:	8,777	14,610	17,580	11,808	3,063	3,273	1,774	1,870	0	0
Cum Total Cost:	8,777	23,387	40,967	52,776	55,839	59,112	60,886	62,755	62,755	62,755

GRAND TOTALS:

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	9,565.0	11,942.0	12,045.0	6,912.0	716.0	664.0	601.0	621.0	0.0	0.0
Cum Hours:	9,565.0	21,507.0	33,552.0	40,464.0	41,180.0	41,844.0	42,445.0	43,066.0	43,066.0	43,066.0
Yr Total Cost:	326,101	445,629	469,571	289,980	46,331	46,461	41,332	34,391	0	0
Cum Total Cost:	326,101	771,730	1,241,301	1,531,282	1,577,613	1,624,074	1,665,406	1,699,797	1,699,797	1,699,797

CAM _____ CONTROL TEAM _____

INCLUDES ESCALATION COSTS

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW DUMPSTER TRASH DISPOSITION TO NTS

PBS 11 — Duration
WBS: 1.1.M — Fiscal Year
Control Account: MMMC

Project: Low Level Waste-CT2001-CLOSURE - MMMC1
Campaign: CT 2001 - 12/1/2000 - mid FY04 (OSDF not open)

Quantity Basis (containers and volume): approximately 98,000 in 880 dumpsters & 10 ISOs

Charge Number: MMMC1
CAM: Dave Wood

Containers for Off-site Shipment: 10 — 1 day = 10 mhrs — **Make Entries in Yellow Shaded Areas Only**
Total Containers minus ROBs: 890

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MKWRT/PIPFTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	QA (QACENG) Req'd	QA Mhrs
1. Campaign Planning		10		184	0.02	2	0.02	2	0	0	0	0	0	0	0.1	10	0	0	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Trash Sorting/Compacting				30,972																		
ISOs	10	28	680	2436	5	1400	1	280	0.1	28	0	0	0.1	28	1	280	1	280	0	0	0	0
Dumpster	880	328	7,970	28536	5	16400	1	3280	0.1	328	0	0	0.1	328	1	3280	1	3280	0	0	0	0
Drums	0	0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0
4. Movements (sumes round trip for DUMPSTERS)				7,258																		
Collect/Return Dumpsters	880	163	1,691	6537	1	1634	1	1634	0.25	409	0.5	817	0	0	0.2	327	0.5	817	0	0	0	0
ISOs	97	18	186	721	1	180	1	180	0.25	45	0.5	90	0	0	0.2	36	0.5	90	0	0	0	0
5. RTR				510																		
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	0.5	0	0	0	0	0
Compactor Boxes	10	15	122	510	1	150	0.5	75	0.5	0	0	0	0	0	0.2	30	0.5	75	0	0	1	150
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	0.5	0	0	0	0	0
6. Loading and Shipping				503																		
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	0.5	0	1	0	0	0	0	0
Compactor Boxes	10	5	143	503	3	150	2	100	0	0	2	100	0.05	3	0.5	25	2	100	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0
Total Manhours by Skill						*19,916*		*5,551*		*810*		*1,007*		*359*		*3,988*		*4,642*		*0*		*150*

Activity	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning	0	0	0.1	10	0.1	10	0.1	10	0.05	5	1	100	0.05	5	0.05	5	0	0	0.25	25	0	0
2. SSR	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
3. Trash Sorting/Compacting																						
ISOs	0	0	0.05	14	0.05	14	0.05	14	0	0	0.1	28	0.2	56	0.05	14	0	0	0	0	0	0
Dumpster	0	0	0.05	164	0.05	164	0.05	164	0	0	0.1	328	0.2	656	0.05	164	0	0	0	0	0	0
Drums	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
4. Movements (sumes round trip for DUMPSTERS)																						
Collect/Return Dumpsters	0	0	0.1	163	0.05	82	0.05	82	0	0	0.1	163	0.2	327	0.05	82	0	0	0	0	0	0
ISOs	0	0	0.1	18	0.05	9	0.05	9	0	0	0.1	18	0.2	36	0.05	9	0	0	0	0	0	0
5. RTR																						
ISOs	0	0	0	0	0	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Compactor Boxes	0	0	0	0	0	0	0.05	8	0	0	0.1	15	0	0	0.05	8	0	0	0	0	0	0
Drums	0	0	0	0	0	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
6. Loading and Shipping																						
ISOs	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Compactor Boxes	0	0	0.05	3	0.05	3	0.05	3	0	0	0.11	6	0.2	10	0.05	3	0	0	0	0	0	0
Drums	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		*0*		*372*		*281*		*289*		*5*		*658*		*1,090*		*284*		*0*		*25*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	10	$1,200	$12,000
Drums	each	0	$40	$0
Full Anti-Cs	change	8651	$9.68	$83,740
Normal Protective Clothing	change	2142	$4.03	$8,632
3 Vehicles for Moves	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
1 Vehicle for ROB Moves	day	0	$55	$0
Absorbent	each	10	$120	$1,200
Other Materials	each	10	$240	$2,400
NTS Truck Freight	shipment	1	$4,600	$4,600
Shoring	shipment	1	$100	$100
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	1,120	$10.80	$12,096

* Includes two warehouse attendants in Loading and Shipping

WORKSHEET SUMMARY		
Total Hours	39,427	
Total Labor		**$1,240,736**
Total Materials		**$112,672**
Total Burial		**$12,096**
Total Cost		**$1,365,503**
Total Cost		**$1,353,407**

All Costs stated in FY01 Dollars

Comments and Assumptions:
1. Trash dumpster = 100 cu.ft.
2. ISO = 1100 cu.ft.
3. Compactor box = 75 cu.ft. ID
4. Compactor ratio = 4:1
5. 9 compactor boxes per shipment
6. 30% (480 cu.ft. in Wood, Glass, Asbestos) to NTS
   20% (320 cu.ft. in BATTERIES, TIRES) to Recycling Program
   50% (800 cu.ft. in Aerosol Cans requiring puncturing)
7. Liquids produced from aersol puncturing estimated
   (10% of 800 cu.ft. = 80 = 590 gallons to Mixed Waste Treatment)

Prepared by: Hugh A. Clinger
Date Prepared: 04/30/2001

Control Team Review:

Project Review:

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW DUMPSTER TRASH DISPOSITION

PBS: 11 | Duration:
WBS: 1.1.M | Fiscal Year:
Control Account: MMMC

Project: Low Level Waste-CT2001-CLOSURE - MMMC1

Campaign: CT 2001 - FY04-Closure (OSDF)

Quantity Basis (containers and volume): approximately 62,000 cu.ft. in 620 dumpsters

Charge Number: MMMC1
CAM: Dave Wood

Containers for Off-site Shipment: 0
Total Containers minus ROBs: 620

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MILWRT/PIPFTR) Req'd	Maintenance (MILWRT/PIPFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	QA (QACENG) Req'd	QA (QACENG) Mhrs	WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning		6		117	0.05	3	0.05	3	0	0	0	0	0	0	0.1	6	0.05	3	0	0	0	0	0	0	0.1	6	0.1	6	0.1	6	0.05	3	1	60	0.05	3	0.05	3	0	0	0.25	15	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
3. Trash Sorting/Compacting				0																																								
ISOs	0	0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Dumpsters	0	0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																																												
ROBs	120	48	641	2472	2	960	1	480	0.25	120	0.5	240	0	0	0.2	96	0.5	240	0	0	0	0	0	0	0.1	48	0.05	24	0.05	24	0	0	0.25	120	0.2	96	0.05	24	0	0	0	0	0	0
5. Container Movement				0																																								
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
6. Loading and Shipping				0																																								
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	0.5	0	1	0	0	0	0	0	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						*963*		*483*		*120*		*240*		*0*		*102*		*243*		*0*		*0*		*0*		*54*		*30*		*30*		*3*		*180*		*99*		*27*		*0*		*15*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	0	$9.68	$0
Normal Protective Clothing	change	641	$4.03	$2,582
3 Vehicles for Moves	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
1 Vehicle for ROB Moves	day	0	$55	$0
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	0	$4,600	$0
Shoring	shipment	0	$100	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$10.80	$0

* Includes two warehouse attendants in Loading and Shipping

WORKSHEET SUMMARY		
Total Hours	2,589	
Total Labor		$81,833
Total Materials		$2,582
Total Burial		$0
Total Cost		$84,416
Total Cost		$84,416

All Costs stated in FY01 Dollars

Comments and Assumptions:
1. ROB = 729 cu.ft.
2. Forecast 620 Dumpsters (~62000 CF) to be collected in ROBs
3. Five ROBs stationed and emptied quarterly (Total of 120 pulls).

Prepared by: Hugh A. Clinger
Date Prepared: 04/30/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW DUMPSTER TRASH DISPOSITION

PBS: 11 — Duration
WBS: 1.1.M — Fiscal Year.
Control Account: MMMC

Project: Low Level Waste
Campaign: CT 2001 - Prohibited Items

Quantity Basis (containers and volume): approximately 1,600 cu.ft.

Charge Number: MMMC1
CAM: Dave Wood

Containers for Off-site Shipment: 9
Total Containers minus ROBs: 17

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MLWRT/PIPFTR) Req'd	Maintenance (MLWRT/PIPFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	QA (QACENG) Req'd	QA (QACENG) Mhrs
1. Campaign Planning		10		346	0.05	5	0.05	5	0	0	0	0	0	0	0.1	10	0.1	10	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Trash Sorting				0																		
ISOs	0	0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0
Metal Boxes	0	0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0
Drums	0	0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																						
ROBs	0	0	0	0	1	0	1	0	0.25	0	0.5	0	0	0	0.2	0	1	0	0	0	0	0
5. Container Movements				17																		
ISOs	1	0	4	15	1	4	0.5	2	0.5	2	0	0	0	0	0.2	1	1	4	0	0	0	0
Metal Boxes	1	0	1	2	1	1	0.5	0	0.5	0	0	0	0	0	0.2	0	1	1	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
6. Loading and Shipping				13																		
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	0.5	0	1	0	0	0	0	0
Metal Boxes	1	0	2	13	3	2	2	1	0	0	2	1	0.05	0	0.5	0	2	1	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0
Total Manhours by Skill						*12*		*9*		*2*		*1*		*0*		*11*		*16*		*0*		*0*

Activity	WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning	0	0	0.25	25	0.5	51	0.5	51	0.5	51	1	102	0.05	5	0.05	5	0	0	0.25	25	0	0
2. SSR	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
3. Trash Sorting																						
ISOs	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																						
ROBs	0	0	0.1	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
5. Container Movements																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
6. Loading and Shipping																						
ISOs	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0.5	0	0.05	0	0.05	0	0	0	9	6	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		*0*		*26*		*51*		*51*		*51*		*108*		*5*		*5*		*0*		*25*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	1	$1,200	$1,200
Drums	each	126	$40	$5,040
Full Anti-Cs	change	3	$9.68	$29
Normal Protective Clothing	change	7	$4.03	$26
3 Vehicles for Moves	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
1 Vehicle for ROB Moves	day	0	$55	$0
Absorbent	each	9	$120	$1,080
Other Materials	each	9	$240	$2,160
NTS Truck Freight	shipment	1	$4,600	$4,600
Shoring	shipment	1	$100	$100
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	448	$10.80	$4,838

* Includes two warehouse attendants in Loading and Shipping

WORKSHEET SUMMARY		
Total Manhours	375	
Total Labor		$17,653
Total Materials		$14,235
Total Burial		$4,838
Total Cost		$36,727
Total Cost minus burial		$31,888

All costs are stated in FY01 Dollars

Comments and Assumptions

1. Path of dispositon for 1,600 cu.ft.:
   To OSDF (glass, wood, asbestos) = 480 cu.ft.= partial ROB + 1 metal box
   To Recycling (batteries, tires) = 320 cu.ft. on 20 Pallets
   To Aerosol Can Puncturing/Crushing = 800 cu.ft.
2. MW liquids for TSCA-type incineration = 590 gallons @$1000/drum = $11,000

Prepared by: Hugh A. Clinger
Date Prepared: 04/30/2001

Control Team Review

Project Review

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LIQUID MIXED WASTES

PBS: 11
WBS: 1.1.M
Control Account: MMMC

Duration:
Fiscal Year:

Project: Low Level Waste
Campaign: CT 2001 Liquids to AWWT

Quantity Basis (containers and volume): approximately 2,900 gallons of liquid to AWWT

Charge Number: MMMC1
CAM: Dave Wood

Total Containers minus ROBs: 33

1 day = 10 mhrs

Make Entries In Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Mhrs	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MLWRTMPFTR) Req'd	Maintenance (MLWRTMPFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	QA (QACENG) Req'd	QA (QACENG) Mhrs	WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning		0		0	0.05	0	0.05	0	0	0	0	0	0	0	0.1	0	0.1	0	0	0	0	0	0	0	0.25	0	0.5	0	0.5	0	0.05	0	1	0	0.05	0	0.05	0	0	0	0.25	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
3. Sampling/Visual Inspection Assumed Number of Samples/Visuals: 6		3	50	179	3	90	1	30	0	0	0	0	0	0	0.5	15	1	30	0	0	0	0	0	0	0.2	6	0.05	2	0.05	2	0	0	0.1	3	0	0	0.05	2	0	0	0	0	0	0
4. Characterization		1	0	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	19	0	0	0	0	0	0	0	0	0	0
5. Liquid Bulking																																												
Drums	0	0	0	0	4	0	1	0	0	0	0	0	0.2	0	0.5	0	1	0	0	0	0	0	0	0	1	0	0.05	0	0.05	0	0	0	2	0	0.2	0	0.05	0	0	0	0	0	0	0
6. TSCA Shipping																																												
Tanker	0	0	0	0	3	0	1	0	0	0	0	0	0.2	0	0.5	0	2.5	0	0	0	0	0	0	0	0.5	0	0.05	0	0.05	0	0	0	2	0	0.2	0	0	0	0	0	0	0	0	0
7. Liquid Transfer				0																																								
ISOs	0	0	0	0	2	0	1	0	0.1	0	2	0	0	0	0.25	0	0.5	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	2	0	1	0	0.1	0	2	0	0	0	0.25	0	0.5	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	2	0	1	0	0.1	0	2	0	0	0	0.25	0	0.5	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						90		30		0		0		0		15		30		0		0		0		6		2		2		0		22		0		2		0		0		0

MATERIALS	Unit	Quantity	Rate	Total
Full Anti-Cs	change	50	$9.68	$479
Normal Protective Clothing	change	0	$4.03	$0
3 Vehicles- Moves/Repack	day	0	$165	$0
Labeling/Misc.Materials	each	0	$240	$0
Freight to Oak Ridge	shipment	0	$2,000	$0

SUBCONTRACTS	Unit	Quantity	Rate	Total
Commercial Treatment	gallon	0	$10	$0
Offsite Lab Analysis	sample	6	$1,675	$10,050
Required TSCA Analysis	batch	0	$47,000	$0

Worksheet Summary		
Total Manhours	198	
Total Labor		$6,464
Total Materials		$479
Total Subcontracts		$10,050
Total Cost		$16,993
Total Cost minus burial		$16,993

All costs are stated in FY01 Dollars.

Comments and Assumptions:

1. Collect 1 sample per tank full and AWWT collects liquids at no cost to project.
2. 5% of trash is wet at 5% volume (400 cu.ft. of wet trash = 2900 gal.)
3. Collect in 500 gallon bulk tank = 6 full tanks

Prepared by: Hugh A. Clinger
Date Prepared: 04/30/2001

Control Team Review:

Project Review:

Comments

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LIQUID MIXED WASTES

PBS: 11 Duration:
WBS: 1 1 M Fiscal Year:
Control Account: MMMC

Project: Low Level Waste
Campaign: Prohibited Items (liquid waste to TSCA)
Quantity Basis (containers and volume): approximately 590 gallons

Charge Number: MMMC1
CAM: Dave Wood

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Total Containers minus ROBs: 11

Activity		Days	PPE Count	Total Mhrs	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MLWRT/PIPFTR) Req'd	Maintenance (MLWRT/PIPFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	QA (QACENG) Req'd	QA (QACENG) Mhrs	WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning		10		329	0.05	5	0.05	5	0	0	0	0	0	0	0.1	10	0.1	10	0	0	0	0	0	0	0.25	25	0.5	51	0.5	51	0.5	51	1	101	0.05	5	0.05	5	0.1	10	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection Assumed Number of Samples/Visuals:	0	0	0	0	3	0	1	0	0	0	0	0	0	0	0.5	0	1	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
4. Characterization		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.9	0	0	0	0	0	0	0	0	0	0	0
5. Liquid Bulking Drums	11	0.50	10	50	4	20	1	5	0	0	0	0	0.2	1	0.5	3	1	5	0	0	0	0	0	0	1	5	0.05	0	0.05	0	0	0	2	10	0.2	1	0.05	0	0	0	0	0	0	0
6. TSCA Shipping Tanker	0	1	14	67	3	20	1	7	0	0	0	0	0.2	1	0.5	3	2.5	17	0	0	0	0	0	0	0.5	3	0.05	0	0.05	0	0	0	2	13	0.2	1	0	0	0	0	0	0	0	0
7. Container Movements				31																																								
ISOs	0	0	0	0	2	0	1	0	0.1	0	2	0	0	0	0.25	0	0.5	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	2	0	1	0	0.1	0	2	0	0	0	0.25	0	0.5	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	11	0.50	9	31	2	10	1	5	0	0	2	10	0	0	0.25	1	0.5	3	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0	0	0.2	1	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						55		22		0		10		2		17		34		0		0		0		34		51		51		51		125		8		6		10		0		0

MATERIALS	Unit	Quantity	Rate	Total
Full Anti-Cs	change	10	$9.68	$94
Normal Protective Clothing	change	23	$4.03	$92
3 Vehicles- Moves/Repack	day	0	$165	$0
Labeling/Misc.Materials	each	0	$240	$0
Freight to Oak Ridge	shipment	0	$2,000	$0

SUBCONTRACTS	Unit	Quantity	Rate	Total
Commercial Treatment	gallon	590	$18	$10,620
Offsite Lab Analysis	sample	0	$1,675	$0
Required TSCA Analysis	batch	0	$47,000	$0

Worksheet Summary		
Total Manhours	477	
Total Labor		**$19,714**
Total Materials		**$186**
Total Subcontracts		**$10,620**
Total Cost		**$30,520**
Total Cost minus burial		**$30,520**

All costs are stated in FY01 Dollars.

Comments and Assumptions:

1. **TSCA sampling & analysis to be performed by PBS10 and not distributed to this task.**
2. **Changed rate under commercial treatment to account for the $1,000 per drum**
3. **11 containers were purchased under prohibited items estimate.**

Prepared by: Hugh A. Clinger
Date Prepared: 04/30/2001

Control Team Review:

Project Review:

Comments

MMMC2

DEBRIS/NONCOMPACTABLE TRASH

09/07/2001
11:22 AM

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

PBS: OHFN11
WBS: 1.1.M.C
CTRL ACCT: MMMC
CHARGE NO: MMMC2
COMMENT NO: R1-F11-008

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: CRPNTR **CARPENTER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	290.8	210.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	290.8	500.9	500.9	500.9	500.9	500.9	500.9	500.9	500.9	500.9
Yr Total Cost:	9,006	6,849	0	0	0	0	0	0	0	0
Cum Total Cost:	9,006	15,855	15,855	15,855	15,855	15,855	15,855	15,855	15,855	15,855

Resource: HAZWAT **HAZWAT** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	18,094.7	13,038.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	18,094.7	31,132.7	31,132.7	31,132.7	31,132.7	31,132.7	31,132.7	31,132.7	31,132.7	31,132.7
Yr Total Cost:	520,947	395,101	0	0	0	0	0	0	0	0
Cum Total Cost:	520,947	916,048	916,048	916,048	916,048	916,048	916,048	916,048	916,048	916,048

Resource: HEOOPR **HEAVY EQUIP OPERATOR** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	830.6	587.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	830.6	1,418.1	1,418.1	1,418.1	1,418.1	1,418.1	1,418.1	1,418.1	1,418.1	1,418.1
Yr Total Cost:	26,131	19,454	0	0	0	0	0	0	0	0
Cum Total Cost:	26,131	45,585	45,585	45,585	45,585	45,585	45,585	45,585	45,585	45,585

Resource: INHTEC **INDUST HYGIENIST TEC** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,905.5	1,597.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,905.5	3,503.5	3,503.5	3,503.5	3,503.5	3,503.5	3,503.5	3,503.5	3,503.5	3,503.5
Yr Total Cost:	71,820	63,392	0	0	0	0	0	0	0	0
Cum Total Cost:	71,820	135,212	135,212	135,212	135,212	135,212	135,212	135,212	135,212	135,212

INCLUDES ESCALATION COSTS

09/07/2001
11:22 AM

PBS: OHFN11
WBS: 1.1.M.C
CTRL ACCT: MMMC
CHARGE NO: MMMC2
COMMENT NO: R1-F11-008

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

RESOURCE TOTALS FOR: MAT300

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Units:	628,186.0	463,986.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Units:	628,186.0	1,092,172.0	1,092,172.0	1,092,172.0	1,092,172.0	1,092,172.0	1,092,172.0	1,092,172.0	1,092,172.0	1,092,172.0
Yr Total Cost:	628,186	476,514	0	0	0	0	0	0	0	0
Cum Total Cost:	628,186	1,104,700	1,104,700	1,104,700	1,104,700	1,104,700	1,104,700	1,104,700	1,104,700	1,104,700

Resource: MPCREP **MATL PROP CTRL REP** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	788.5	652.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	788.5	1,440.5	1,440.5	1,440.5	1,440.5	1,440.5	1,440.5	1,440.5	1,440.5	1,440.5
Yr Total Cost:	25,484	22,180	0	0	0	0	0	0	0	0
Cum Total Cost:	25,484	47,664	47,664	47,664	47,664	47,664	47,664	47,664	47,664	47,664

Resource: MVOOPR **MOTOR VEHICLE OPER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	7,910.5	5,897.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	7,910.5	13,808.1	13,808.1	13,808.1	13,808.1	13,808.1	13,808.1	13,808.1	13,808.1	13,808.1
Yr Total Cost:	228,298	179,152	0	0	0	0	0	0	0	0
Cum Total Cost:	228,298	407,450	407,450	407,450	407,450	407,450	407,450	407,450	407,450	407,450

Resource: PJSMGR **PROJECT SUPPORT MGR** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	3,156.2	2,256.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	3,156.2	5,412.6	5,412.6	5,412.6	5,412.6	5,412.6	5,412.6	5,412.6	5,412.6	5,412.6
Yr Total Cost:	144,303	108,583	0	0	0	0	0	0	0	0
Cum Total Cost:	144,303	252,886	252,886	252,886	252,886	252,886	252,886	252,886	252,886	252,886

INCLUDES ESCALATION COSTS

09/07/2001
11:22 AM

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

PBS: OHFN11
WBS: 1.1.M.C
CTRL ACCT: MMMC
CHARGE NO: MMMC2
COMMENT NO: R1-F11-008

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: RADENG **RAD ENGINEER** **EOC: LABOR**
Res Dept: 951 **Overtime:** **Class: SAL**

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,195.4	787.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,195.4	1,982.7	1,982.7	1,982.7	1,982.7	1,982.7	1,982.7	1,982.7	1,982.7	1,982.7
Yr Total Cost:	56,424	39,112	0	0	0	0	0	0	0	0
Cum Total Cost:	56,424	95,537	95,537	95,537	95,537	95,537	95,537	95,537	95,537	95,537

Resource: RADTEC **RAD TECH** **EOC: LABOR**
Res Dept: 951 **Overtime:** **Class: SAL**

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	4,595.1	3,326.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	4,595.1	7,921.3	7,921.3	7,921.3	7,921.3	7,921.3	7,921.3	7,921.3	7,921.3	7,921.3
Yr Total Cost:	156,600	119,318	0	0	0	0	0	0	0	0
Cum Total Cost:	156,600	275,917	275,917	275,917	275,917	275,917	275,917	275,917	275,917	275,917

Resource: S&HENG **SAFETY ENGINEER** **EOC: LABOR**
Res Dept: 951 **Overtime:** **Class: SAL**

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,167.1	594.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,167.1	1,761.9	1,761.9	1,761.9	1,761.9	1,761.9	1,761.9	1,761.9	1,761.9	1,761.9
Yr Total Cost:	58,018	31,119	0	0	0	0	0	0	0	0
Cum Total Cost:	58,018	89,137	89,137	89,137	89,137	89,137	89,137	89,137	89,137	89,137

RESOURCE TOTALS FOR: SERVSUB

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Units:	0.0	111,960.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Units:	0.0	111,960.0	111,960.0	111,960.0	111,960.0	111,960.0	111,960.0	111,960.0	111,960.0	111,960.0
Yr Total Cost:	0	114,983	0	0	0	0	0	0	0	0
Cum Total Cost:	0	114,983	114,983	114,983	114,983	114,983	114,983	114,983	114,983	114,983

INCLUDES ESCALATION COSTS

09/07/2001
11:22 AM

PBS: OHFN11
WBS: 1.1.M.C
CTRL ACCT: MMMC
CHARGE NO: MMMC2
COMMENT NO: R1-F11-008

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: TPSREP **TECH/PROG SUPT REP** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	348.1	178.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	348.1	526.9	526.9	526.9	526.9	526.9	526.9	526.9	526.9	526.9
Yr Total Cost:	18,089	9,776	0	0	0	0	0	0	0	0
Cum Total Cost:	18,089	27,864	27,864	27,864	27,864	27,864	27,864	27,864	27,864	27,864

Resource: TRNLAB **TRANSPORT LABORER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	69.9	56.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	69.9	126.1	126.1	126.1	126.1	126.1	126.1	126.1	126.1	126.1
Yr Total Cost:	1,724	1,462	0	0	0	0	0	0	0	0
Cum Total Cost:	1,724	3,186	3,186	3,186	3,186	3,186	3,186	3,186	3,186	3,186

Resource: WSTENG **WASTE ENGINEER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,671.1	1,532.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,671.1	3,203.9	3,203.9	3,203.9	3,203.9	3,203.9	3,203.9	3,203.9	3,203.9	3,203.9
Yr Total Cost:	85,278	82,329	0	0	0	0	0	0	0	0
Cum Total Cost:	85,278	167,606	167,606	167,606	167,606	167,606	167,606	167,606	167,606	167,606

GRAND TOTALS:

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	42,023.7	30,715.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	42,023.7	72,738.9	72,738.9	72,738.9	72,738.9	72,738.9	72,738.9	72,738.9	72,738.9	72,738.9
Yr Total Cost:	2,030,307	1,669,321	0	0	0	0	0	0	0	0
Cum Total Cost:	2,030,307	3,699,629	3,699,629	3,699,629	3,699,629	3,699,629	3,699,629	3,699,629	3,699,629	3,699,629

CAM_____ CONTROL TEAM_____

INCLUDES ESCALATION COSTS

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW COMPACTABLE TRASH DISPOSITION

PBS 11 Duration
WBS 1.1.M Fiscal Year
Control Account MMMC

Project: Low Level Waste

Campaign: NCT 2000 - Prohibited Items to NTS (glass, etc)

Quantity Basis (containers and volume): approximately 935 cu.ft. in 125 containers

Charge Number MMMC2
CAM Dave Wood

Containers for Off site Shipment: 2 1 day = 10 mhrs Make Entries in Yellow Shaded Areas Only
Total Containers minus ROBs: 125

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MILWRT/PIPFTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	QA (QACENG) Req'd	QA Mhrs
1. Campaign Planning		10		285	0.05	5	0.05	5	0	0	0	0	0	0	0.05	5	0.05	5	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Trash Sorting/Compacting				0																		
ISOs	0	0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0
Metal Boxes	0	0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0
Drums	0	0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																						
ROBs	0	0	0	0	1	0	1	0	0.25	0	2	0	0	0	0.2	0	1	0	0	0	0	0
5. Container Movements				73																		
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Drums	125	2.5	24	73	1	25	0.5	13	0.5	0	0	0	0	0	0.2	5	1	25	0	0	0	0
6. Loading and Shipping				112																		
ISOs	2	1.0	29	112	5	50	3	30	0.2	2	0	0	0.05	1	0.5	5	1	10	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0
Total Manhours by Skill						*80*		*48*		*2*		*0*		*1*		*15*		*40*		*0*		*0*

Activity	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning	0	0	0.05	5	0.5	50	0.5	50	0.5	50	1	100	0.05	5	0.05	5	0	0	0	0	0	0
2. SSR	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
3. Trash Sorting/Compacting																						
ISOs	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																						
ROBs	0	0	0.1	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
5. Container Movements																						
ISOs	0	0	0	0	0	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0	0	0.05	1	0	0	0.1	3	0	0	0.05	1	0	0	0	0	0	0
6. Loading and Shipping																						
ISOs	0	0	0.5	5	0.05	1	0.05	1	0	0	0.6	6	0.2	2	0.05	1	0	0	0	0	0	0
Metal Boxes	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		*0*		*10*		*51*		*52*		*50*		*109*		*7*		*7*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	2	$2,000	$4,000
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	0	$9.68	$0
Normal Protective Clothing	change	53	$4.03	$214
3 Vehicles for Moves	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
1 Vehicle for ROB Moves	day	0	$55	$0
Absorbent	each	2	$120	$240
Other Materials	each	2	$240	$480
NTS Truck Freight	shipment	2	$4,600	$9,200
Shoring	shipment	2	$100	$200
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	2,700	$6.57	$17,739

* Includes two warehouse attendants in Loading and Shipping

WORKSHEET SUMMARY		
Total Hours	470	
Total Labor		**$19,188**
Total Materials		**$14,334**
Total Burial		**$17,739**
Total Cost		**$51,261**
Total Cost		**$33,522**

All Costs stated in FY01 Dollars

Comments and Assumptions:

Prepared by: Hugh A. Clinger
Date Prepared: 05/02/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW COMPACTABLE TRASH DISPOSITION

PBS: 11 Duration:
WBS: 1.1.M Fiscal Year:
Control Account: MMMC

Project: Low Level Waste

Campaign: NTS 2000 - Prohibited Items to Recycling (batteries, tires)

Quantity Basis (containers and volume): approximately 935 cu.ft. in

Charge Number: MMMC2
CAM: Dave Wood

Containers for Off-site Shipment: 1 1 day = 10 mhrs **Make Entries in Yellow Shaded Areas Only**
Total Containers minus ROBs: 13

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRHLAB) Req'd	Tran. Labor Mhrs	Maintenance (MILWRTIPIPFTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	QA (QACENG) Req'd	QA Mhrs	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning		0		0	0.05	0	0.05	0	0	0	0	0	0	0	0.1	0	0.1	0	0	0	0.0	0	0	0	0.25	0	0.5	0	0.5	0	1	0	1	0	0.05	0	0.05	0	0	0	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Trash Sorting/Compacting				0																																								
ISOs	0	0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																																												
ROBs	0	0	0	0	1	0	1	0	0.25	0	2	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0.1	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
5. Container Movements				15																																								
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	13	0.5	5	15	1	5	0.5	3	0.5	0	0	0	0	0	0.2	1	1	5	0	0	0	0	0	0	0	0	0	0	0.05	0	0	0	0.1	1	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
6. Loading and Shipping				38																																								
ISOs	1	0.3	9	38	5	15	3	9	0.2	1	0	0	0.05	0	0.5	2	1	3	0	0	0	0	0	0	0.5	2	0.05	0	0.05	0	0	0	2	6	0.2	1	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						*20*		*12*		*1*		*0*		*0*		*3*		*8*		*0*		*0*		*0*		*2*		*0*		*0*		*0*		*7*		*1*		*0*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	1	$2,000	$2,000
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	0	$9.68	$0
Normal Protective Clothing	change	14	$4.03	$55
3 Vehicles for Moves	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$66
1 Vehicle for ROB Moves	day	0	$55	$0
Absorbent	each	1	$120	$120
Other Materials	each	1	$240	$240
NTS Truck Freight	shipment	1	$4,600	$4,600
Shoring	shipment	1	$100	$100
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$6.57	$0

* Includes two warehouse attendants in Loading and Shipping

WORKSHEET SUMMARY		
Total Hours	52	
Total Labor		$1,705
Total Materials		$7,181
Total Burial		$0
Total Cost		$8,885
Total Cost		$8,885

All Costs stated in FY01 Dollars

Comments and Assumptions:
1. Shipping estimate approximate

Prepared by: Hugh A. Clinger
Date Prepared: 05/02/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LIQUID MIXED WASTES

PBS: 11
WBS: 1.1 M
Control Account: MMMC

Duration
Fiscal Year:

Charge Number: MMMC2
CAM: Dave Wood

ProjectLow Level Waste
CampaignProhibited Items (Liquids from punctured aerosols)
Quantity Basis (containers and volume): approximately 103 gallons in 2 drums

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Total Containers minus ROBs: 2

Activity		Days	PPE Count	Total Mhrs	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MLWRT/PIPFTR) Req'd	Maintenance (MLWRT/PIPFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	QA (QACENG) Req'd	QA (QACENG) Mhrs
1. Campaign Planning		10		306	0.05	5	0.05	5	0	0	0	0	0	0	0.05	5	0.05	5	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection Assumed Number of Samples/Visuals: 2		0	4	15	3	8	1	3	0	0	0	0	0	0	0.5	1	1	3	0	0	0	0
4. Characterization		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. Liquid Bulking	Drums 2	0.01	0	1	4	0	1	0	0	0	0	0	0.2	0	0.5	0	1	0	0	0	0	0
6. TSCA Shipping	Tanker 0	0	3	12	3	4	1	1	0	0	0	0	0.2	0	0.5	1	2.5	3	0	0	0	0
7. Container Movements				12																		
	ISOs 0	0	0	0	2	0	1	0	0.1	0	2	0	0	0	0.25	0	0.5	0	0	0	0	0
	Metal Boxes 0	0	0	0	2	0	1	0	0.1	0	2	0	0	0	0.25	0	0.5	0	0	0	0	0
	Drums 2	0.1	2	12	2	2	1	1	0.1	0	2	2	0	0	0.25	0	0.5	1	0	0	0	0
Total Manhours by Skill						19		10		0		2		0		7		11		0		0

Activity	WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning	0	0	0.25	25	0.5	50	0.5	50	0.5	50	1	100	0.05	5	0.05	5	0	0	0	0	0	0
2. SSR	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection	0	0	0.2	1	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
4. Characterization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. Liquid Bulking	0	0	1	0	0.05	0	0.05	0	0	0	2	0	0.2	0	0.05	0	0	0	0	0	0	0
6. TSCA Shipping	0	0	0.5	1	0.05	0	0.05	0	0	0	2	2	0.2	0	0	0	0	0	0	0	0	0
7. Container Movements																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	6	6	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		0		26		50		50		50		109		5		5		0		0		0

MATERIALS	Unit	Quantity	Rate	Total
Full Anti-Cs	change	4	$9.68	$43
Normal Protective Clothing	change	4	$4.03	$17
3 Vehicles- Moves/Repack	day	0	$165	$17
Labeling/Misc.Materials	each	0	$240	$0
Freight to Oak Ridge	shipment	0	$2,000	$0

SUBCONTRACTS	Unit	Quantity	Rate	Total
Commercial Treatment	gallon	103	$10	$1,030
Offsite Lab Analysis	sample	0	$1,675	$0
Required TSCA Analysis	batch	0	$47,000	$0

Worksheet Summary		
Total Manhours	347	
Total Labor		**$15,323**
Total Materials		**$77**
Total Subcontracts		**$1,030**
Total Cost		**$16,430**
Total Cost minus burial		**$16,430**

All costs are stated in FY01 Dollars.

Comments and Assumptions:

1. Assumes TSCA analysis will require three sampling events ($15,000 per event) per batch.
2. 1497 Cu.Ft. of Aerosols / 7.3. Cu.ft. per drum = 205 drums
3. 205 drums x 1/2 gal per drum = 103 gallons
4. 103 gallons = 2 drums
5. To be included in other shipments

Prepared by: Hugh A. Clinger
Date Prepared: 05/01/2001

Control Team Review:

Project Review:

Comments

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW DEBRIS / NON-COMPACTABLE WASTE DISPOSITION

PBS 11 — Duration:
WBS 1.1.M — Fiscal Year:
Control Account: MMMC

Project: Low Level Waste

Campaign: NCT 2000 - DEBRIS / NON-COMPACTABLE WASTE

Quantity Basis (containers and volume): approximately 105,337 cu.ft. in 2,159 containers

Charge Number: MMMC2
CAM: Dave Wood

Containers for Off-site Shipment: 86 — 1 day = 10 mhrs — Make Entries in Yellow Shaded Areas Only
Total Containers minus ROBs: 2,153

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MILWRT/PIPFTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	QA (QACENG) Req'd	QA Mhrs	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal. (S&HENG) Req'd	Safety Anal. Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning		32		962	0.05	16	0.05	16	0	0	0	0	0	0	0.05	16	0.05	16	0	0	0	0	0	0	0.05	16	0.5	158	0.5	158	0.5	158	1	315	0.05	16	0.25	79	0	0	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Trash Sorting				23,715																																								
ISOs & ROBs	52	52	1,108	4420	4	2080	1	520	0.1	52	0	0	0.1	52	1	520	1	520	0	0	0	0	0	0	0.5	260	0.25	130	0.05	26	0	0	0.25	130	0.2	104	0.05	26	0	0	0	0	0	0
Metal Boxes	512	102	2,173	8670	4	4080	1	1020	0.1	102	0	0	0.1	102	1	1020	1	1020	0	0	0	0	0	0	0.5	510	0.25	255	0.05	51	0	0	0.25	255	0.2	204	0.05	51	0	0	0	0	0	0
Drums	1,595	125	2,663	10625	4	5000	1	1250	0.1	125	0	0	0.1	125	1	1250	1	1250	0	0	0	0	0	0	0.5	625	0.25	313	0.05	63	0	0	0.25	313	0.2	250	0.05	63	0	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																																												
ROBs	0	0	0	0	1	0	1	0	0.25	0	2	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0.1	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
5. Container Movements				2,022																																								
ISOs	52	17.3	166	597	1	173	0.5	87	0.5	87	0	0	0	0	0.2	35	1	173	0	0	0	0	0	0	0	0	0.05	9	0.05	9	0	0	0.1	17	0	0	0.05	9	0	0	0	0	0	0
Metal Boxes	512	21.3	204	735	1	213	0.5	107	0.5	107	0	0	0	0	0.2	43	1	213	0	0	0	0	0	0	0	0	0.05	11	0.05	11	0	0	0.1	21	0	0	0.05	11	0	0	0	0	0	0
Drums	1,595	20	192	690	1	200	0.5	100	0.5	100	0	0	0	0	0.2	40	1	200	0	0	0	0	0	0	0	0	0.05	10	0.05	10	0	0	0.1	20	0	0	0.05	10	0	0	0	0	0	0
6. Loading and Shipping				30,104																																								
ISOs	86	279.0	8,119	30104	5	13950	3	8370	0.2	558	0	0	0.05	140	0.5	1395	1	2790	0	0	0	0	0	0	0.5	1395	0.05	140	0.05	140	0	0	0.19	530	0.2	558	0.05	140	0	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						*25,712*		*11,469*		*1,130*		*0*		*419*		*4,318*		*6,182*		*0*		*0*		*0*		*2,806*		*1,024*		*466*		*158*		*1,602*		*1,132*		*387*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	34	$2,000	$68,000
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	5943	$9.68	$57,525
Normal Protective Clothing	change	8681	$4.03	$34,986
3 Vehicles for Moves	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
1 Vehicle for ROB Moves	day	0	$55	$0
Absorbent	each	86	$120	$10,320
Other Materials	each	86	$240	$20,640
NTS Truck Freight	shipment	86	$4,600	$395,600
Shoring	shipment	86	$100	$8,600
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	116,100	$6.57	$762,777

* Includes two warehouse attendants in Loading and Shipping

WORKSHEET SUMMARY		
Total Manhours	56,802	
Total Labor		$1,787,290
Total Materials		$595,672
Total Burial		$762,777
Total Cost		$3,145,739
Total Cost minus burial		$2,382,962

All costs are stated in FY01 Dollars

Comments and Assumptions

1. ISO's repackaged for shipment
2. 20% of total cu.ft. (MB & Drums) sorted as Non-Debris
3. 3% of total cu.ft. (all containers) sorted as Prohibited Items.
4. Approximately 1,496 cu.ft added back in after sorting of prohibited items.

Prepared by: Hugh A. Clinger
Date Prepared: 05/02/2001

Control Team Review: _____

Project Review: _____

Campaign 20% Non-Debris to NTS

Quantity Basis (containers and volume): approximately 11,971 cu.ft. in 496 containers

Charge Number: MMMC2

CAM: Dave Wood

Containers for Off-site Shipment: 11
Total Containers minus ROBs: 487

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MILWRT/PIPF) Req'd	Maintenance (MILWRT/PIPF) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	QA (QACENG) Req'd	QA (QACENG) Mhrs	WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERK6) Req'd	Admin. Spt. (CLERK6) Mhrs
1. Campaign Planning		15		372	0.05	7	0.05	7	0	0	0	0	0	0	0.1	15	0.1	15	0	0	0	0	0	0	0.05	7	0.5	74	0.5	74	0.05	7	1	149	0.05	7	0.05	7	0	0	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Trash Sorting				0																																								
ISOs	0	0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0	0	0	0.5	0	1.00	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0	0	0	0.5	0	1.00	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																																												
ROBs	0	0	0	0	1	0	1	0	0.25	0	2	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0.1	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
5. Container Movements				382																																								
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	122	5	48	173	1	50	0.5	25	0.5	25	0	0	0	0	0.2	10	1	50	0	0	0	0	0	0	0	0	0.05	3	0.05	3	0	0	0.1	5	0	0	0.05	3	0	0	0	0	0	0
Drums	374	6	58	210	1	61	0.5	30	0.5	30	0	0	0	0	0.2	12	1	61	0	0	0	0	0	0	0	0	0.05	3	0.05	3	0	0	0.1	6	0	0	0.05	3	0	0	0	0	0	0
6. Loading and Shipping				459																																								
ISOs	11	3.7	108	459	5	185	3	111	0.2	7	0	0	0.05	2	0.5	19	1	37	0	0	0	0	0	0	0.5	19	0.05	2	0.05	2	0	0	1.8	67	0.2	7	0.05	2	0	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						*303*		*174*		*63*		*0*		*2*		*56*		*163*		*0*		*0*		*0*		*26*		*82*		*82*		*7*		*226*		*15*		*15*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	11	$2,000	$22,000
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	0	$9.68	$0
Normal Protective Clothing	change	214	$4.03	$862
3 Vehicles for Moves	day	11	$165	$1,828
4 Vehicles for Loading	day	0	$220	$0
1 Vehicle for ROB Moves	day	0	$55	$0
Absorbent	each	11	$120	$1,320
Other Materials	each	11	$240	$2,640
NTS Truck Freight	shipment	10	$4,600	$46,000
Shoring	shipment	10	$100	$1,000
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	14,850	$6.57	$97,565

* Includes two warehouse attendants in Loading and Shipping

WORKSHEET SUMMARY		
Total Manhours	1,213	
Total Labor		**$44,068**
Total Materials		**$75,650**
Total Burial		**$97,565**
Total Cost		**$217,283**
Total Cost minus burial		**$119,718**

All costs are stated in FY01 Dollars

Comments and Assumptions

Prepared by: Hugh A. Clinger
Date Prepared: 05/02/2001

Control Team Review:

Project Review:

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW DEBRIS NON-COMPACTABLE WASTE DISPOSITION

PBS: 11
WBS: 1.1. M.C
Control Account: MMMC

Duration:
Fiscal Year:

Project: Low Level Waste
Campaign: SILO 1001 - Sorting

Quantity Basis (containers and volume): approximately 248 cu.ft. in 6 containers

Charge Number: MMMC2
CAM: Dave Wood

Containers for Off-site Shipment: 1
Total Containers minus ROBs: 6

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MLWRT/PPFTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	QA (QACENG) Req'd	QA Mhrs
1. Campaign Planning		10		297	0.05	5	0.05	5	0	0	0	0	0	0	0.1	10	0.1	10	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Trash Sorting				48																		
ISOs	0	0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0
Metal Boxes	3	0.5	11	46	4	20	1	5	0.1	1	0	0	0.1	1	1	5	1	5	0	0	0	0
Drums	3	0.03	1	3	4	1	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																						
ROBs	0	0	0	0	1	0	1	0	0.25	0	2	0	0	0	0.2	0	1	0	0	0	0	0
5. Container Movements				6																		
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Metal Boxes	3	0.1	1	4	1	1	0.5	1	0.5	1	0	0	0	0	0.2	0	1	1	0	0	0	0
Drums	3	0.04	0	1	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
6. Loading and Shipping				38																		
ISOs	1	0.3	9	38	5	15	3	9	0.2	1	0	0	0.05	0	0.5	2	1	3	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0
Total Manhours by Skill						*43*		*20*		*2*		*0*		*1*		*17*		*20*		*0*		*0*

Activity		WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning		0	0	0.05	5	0.5	50	0.5	50	0.5	50	1	101	0.05	5	0.05	5	0	0	0	0	0	0
2. SSR	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Trash Sorting																							
ISOs	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	3	0	0	0.5	3	1.00	5	0.05	0	0	0	0.1	1	0.2	1	0.05	0	0	0	0	0	0	0
Drums	3	0	0	0.5	0	1.00	0.3	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																							
ROBs	0	0	0	0.1	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
5. Container Movements																							
ISOs	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	3	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	3	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
6. Loading and Shipping																							
ISOs	1	0	0	0.5	2	0.05	0	0.05	0	0	0	0.1	6	0.2	1	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill			*0*		*9*		*55*		*51*		*50*		*107*		*7*		*6*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	1	$2,000	$2,000
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	11	$9.68	$109
Normal Protective Clothing	change	10	$4.03	$42
3 Vehicles for Moves	day	0	$165	$28
4 Vehicles for Loading	day	0	$220	$66
1 Vehicle for ROB Moves	day	0	$55	$0
Absorbent	each	1	$120	$120
Other Materials	each	1	$240	$240
NTS Truck Freight	shipment	1	$4,600	$4,600
Shoring	shipment	1	$100	$100
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	1,350	$6.57	$8,870

* Includes two warehouse attendants in Loading and Shipping

WORKSHEET SUMMARY		
Total Manhours	389	
Total Labor		**$16,848**
Total Materials		**$7,305**
Total Burial		**$8,870**
Total Cost		**$33,022**
Total Cost minus burial		**$24,153**

All costs are stated in FY01 Dollars

Comments and Assumptions

1. ISO's repackaged for shipment
2. 20% of total cu.ft. (MB & Drums) sorted as Non-Debris
3. 3% of total cu.ft. (all containers) sorted as Prohibited Items.

Prepared by: Hugh A. Clinger
Date Prepared: 05/02/2001

Control Team Review:

Project Review:

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW NON-COMPACTABLE TRASH DISPOSITION

PBS: 11
WBS: 1.1.M.C
Control Account: MMMC

Duration:
Fiscal Year:

Project: Low Level Waste
Campaign: PITW 1003 - Trash

Quantity Basis (containers and volume): approximately 3,275 cu.ft. in 30 containers

Charge Number: MMMC2
CAM: Dave Wood

Containers for Off-site Shipment: 2 — 1 day = 10 mhrs — Make Entries in Yellow Shaded Areas Only
Total Containers minus ROBs: 30

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MLWRT/PIPFTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	QA (QACENG) Req'd	QA Mhrs
1. Campaign Planning		10		278	0.05	5	0.05	5	0	0	0	0	0	0	0.1	10	0.1	10	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Trash Sorting				1,729																		
ISOs	1	4	85	364	4	160	1	40	0.1	4	0	0	0.1	4	1	40	1	40	0	0	0	0
Metal Boxes	29	15.0	320	1365	4	600	1	150	0.1	15	0	0	0.1	15	1	150	1	150	0	0	0	0
Drums	0	0.0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																						
ROBs	0	0	0	0	1	0	1	0	0.25	0	2	0	0	0	0.2	0	1	0	0	0	0	0
5. Container Movements				53																		
ISOs	1	0.3	3	11	1	3	0.5	2	0.5	2	0	0	0	0	0.2	1	1	3	0	0	0	0
Metal Boxes	29	1.2	12	41	1	12	0.5	6	0.5	6	0	0	0	0	0.2	2	1	12	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
6. Loading and Shipping				88																		
ISOs	2	0.7	20	88	5	35	3	21	0.2	1	0	0	0.05	0	0.5	4	1	7	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0
Total Manhours by Skill						*815*		*224*		*28*		*0*		*19*		*207*		*223*		*0*		*0*

Activity		WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERK8) Req'd	Admin. Spt. Mhrs
1. Campaign Planning		0	0	0.25	26	0.5	52	0.5	52	0.05	5	1	103	0.05	5	0.05	5	0	0	0	0	0	0
2. SSR	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Trash Sorting																							
ISOs	1	0	0	0.5	20	1.00	40	0.05	2	0	0	0.1	4	0.2	8	0.05	2	0	0	0	0	0	0
Metal Boxes	29	0	0	0.5	75	1.00	150	0.05	8	0	0	0.1	15	0.2	30	0.05	8	0	0	0	0	0	0
Drums	0	0	0	0.5	0	1.00	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																							
ROBs	0	0	0	0.1	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
5. Container Movements																							
ISOs	1	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	29	0	0	0	0	0.05	1	0.05	1	0	0	0.1	1	0	0	0.05	1	0	0	0	0	0	0
Drums	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
6. Loading and Shipping																							
ISOs	2	0	0	0.5	4	0.05	0	0.05	0	0	0	1.9	13	0.2	1	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill			*0*		*124*		*243*		*62*		*5*		*137*		*45*		*16*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	1	$2,000	$2,000
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	405	$9.68	$3,917
Normal Protective Clothing	change	35	$4.03	$141
3 Vehicles for Moves	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
1 Vehicle for ROB Moves	day	0	$55	$0
Absorbent	each	2	$120	$240
Other Materials	each	2	$240	$480
NTS Truck Freight	shipment	2	$4,600	$9,200
Shoring	shipment	2	$100	$200
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	2,700	$6.57	$17,739

* Includes two warehouse attendants in Loading and Shipping

WORKSHEET SUMMARY		
Total Manhours	2,147	
Total Labor		**$73,736**
Total Materials		**$16,179**
Total Burial		**$17,739**
Total Cost		**$107,653**
Total Cost minus burial		**$89,914**

All costs are stated in FY01 Dollars

Comments and Assumptions

1. ISO's repackaged for shipment
2. 20% of total cu.ft. (MB & Drums) sorted as Non-Debris
3. 3% of total cu.ft. (all containers) sorted as Prohibited Items.
4. Includes trash from RES1013 inventory

Prepared by: Hugh A. Clinger
Date Prepared: 05/02/2001

Control Team Review:

Project Review:

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW NON-COMPACTABLE TRASH DISPOSITION

PBS: 11
WBS: 1.1.M.C
Control Account: MMMC

Duration:
Fiscal Year:

Project: Low Level Waste
Campaign: RES 1013 - Glass from Vitrification

Quantity Basis (containers and volume): approximately 458 cu.ft. in 61 containers

Charge Number: MMMC2
CAM: Dave Wood

Containers for Off-site Shipment: 1
Total Containers minus ROBs: 61

1 day = 10 mhrs

Make Entries In Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MLWRIPPFTR) Req'd	Maintenance (MLWRIPPFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	QA (QACENG) Req'd	QA (QACENG) Mhrs
1. Campaign Planning		11		313	0.05	5	0.05	5	0	0	0	0	0	0	0.1	11	0.1	11	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Trash Sorting				273																		
ISOs	0	0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0
Metal Boxes	0	0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0
Drums	61	3.0	64	273	4	120	1	30	0.1	3	0	0	0.1	3	1	30	1	30	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																						
ROBs	0	0	0	0	1	0	1	0	0.25	0	2	0	0	0	0.2	0	1	0	0	0	0	0
5. Container Movement				28																		
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Drums	61	0.8	8	28	1	8	0.5	4	0.5	4	0	0	0	0	0.2	2	1	8	0	0	0	0
6. Loading and Shipping				38																		
ISOs	1	0.3	9	38	5	15	3	9	0.2	1	0	0	0.05	0	0.5	2	1	3	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0
Total Manhours by Skill						*148*		*48*		*8*		*0*		*3*		*44*		*52*		*0*		*0*

Activity		WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning		0	0	0.05	5	0.5	53	0.5	53	0.5	53	1	106	0.05	5	0.05	5	0	0	0	0	0	0
2. SSR	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Trash Sorting																							
ISOs	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	61	0	0	0.5	15	1.00	30	0.05	2	0	0	0.1	3	0.2	6	0.05	2	0	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																							
ROBs	0	0	0	0.1	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
5. Container Movement																							
ISOs	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	61	0	0	0	0	0.05	0	0.05	0	0	0	0.1	1	0	0	0.05	0	0	0	0	0	0	0
6. Loading and Shipping																							
ISOs	1	0	0	0.5	2	0.05	0	0.05	0	0	0	2	6	0.2	1	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill			*0*		*22*		*84*		*55*		*53*		*116*		*12*		*7*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	1	$2,000	$2,000
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	64	$9.68	$619
Normal Protective Clothing	change	16	$4.03	$66
3 Vehicles for Moves	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
1 Vehicle for ROB Moves	day	0	$55	$0
Absorbent	each	1	$120	$120
Other Materials	each	1	$240	$240
NTS Truck Freight	shipment	1	$4,600	$4,600
Shoring	shipment	1	$100	$100
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	1,350	$6.57	$8,870

* Includes two warehouse attendants in Loading and Shipping

WORKSHEET SUMMARY		
Total Manhours	651	
Total Labor		$25,705
Total Materials		$7,745
Total Burial		$8,870
Total Cost		$42,319
Total Cost minus burial		$33,450

All costs are stated in FY01 Dollars

Comments and Assumptions

1. ISO's repackaged for shipment
2. 20% of total cu.ft. (MB & Drums) sorted as Non-Debris
3. 3% of total cu.ft. (all containers) sorted as Prohibited Items.
4. This trash will be included in PITW1003 shipment

Prepared by: Hugh A. Clinger
Date Prepared: 05/02/2001

Control Team Review:

Project Review:

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW DEBRIS / NON-COMPACTABLE WASTE DISPOSITION

PBS: 11
WBS: 1.1.M.C
Control Account: MMMC

Duration:
Fiscal Year:

Project: Low Level Waste

Campaign: RES 1014 - Metallic and Carbon Filters

Quantity Basis (containers and volume): approximately 1,163 cu.ft. in 101 containers

Charge Number: MMMC2
CAM: Dave Wood

Containers for Off-site Shipment: 2
Total Containers minus ROBs: 101

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MLWRIT/PFTR) Req'd	Maintenance (MLWRIT/PFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	QA (QACENG) Req'd	QA (QACENG) Mhrs
1. Campaign Planning		11		297	0.05	6	0.05	6	0	0	0	0	0	0	0.1	11	0.1	11	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Trash Sorting				546																		
ISOs	0	0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0
Metal Boxes	6	2	43	182	4	80	1	20	0.1	2	0	0	0.1	2	1	20	1	20	0	0	0	0
Drums	95	4.0	85	364	4	160	1	40	0.1	4	0	0	0.1	4	1	40	1	40	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																						
ROBs	0	0	0	0	1	0	1	0	0.25	0	2	0	0	0	0.2	0	1	0	0	0	0	0
5. Container Movement				50																		
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Metal Boxes	6	0.3	2	9	1	3	0.5	1	0.5	1	0	0	0	0	0.2	1	1	3	0	0	0	0
Drums	95	1.2	12	41	1	12	0.5	6	0.5	6	0	0	0	0	0.2	2	1	12	0	0	0	0
6. Loading and Shipping				118																		
ISOs	2	1	29	118	5	50	3	30	0.2	2	0	0	0.05	1	0.5	5	1	10	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0
Total Manhours by Skill						*310*		*103*		*15*		*0*		*7*		*79*		*96*		*0*		*0*

Activity		WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERK8) Req'd	Admin. Spt. (CLERK8) Mhrs
1. Campaign Planning		0	0	0.25	28	0.5	55	0.5	55	0.05	6	1	110	0.05	6	0.05	6	0	0	0	0	0	0
2. SSR	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Trash Sorting																							
ISOs	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	6	0	0	0.5	10	1.00	20	0.05	1	0	0	0.1	2	0.2	4	0.05	1	0	0	0	0	0	0
Drums	95	0	0	0.5	20	1.00	40	0.05	2	0	0	0.1	4	0.2	8	0.05	2	0	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																							
ROBs	0	0	0	0.1	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
5. Container Movement																							
ISOs	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	6	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	95	0	0	0	0	0.05	1	0.05	1	0	0	0.1	1	0	0	0.05	1	0	0	0	0	0	0
6. Loading and Shipping																							
ISOs	2	0	0	0.5	5	0.05	1	0.05	1	0	0	1	12	0.2	2	0.05	1	0	0	0	0	0	0
Metal Boxes	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill			*0*		*63*		*116*		*59*		*6*		*130*		*20*		*10*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	2	$2,000	$4,000
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	128	$9.68	$1,237
Normal Protective Clothing	change	43	$4.03	$173
3 Vehicles for Moves	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
1 Vehicle for ROB Moves	day	0	$55	$0
Absorbent	each	2	$120	$240
Other Materials	each	2	$240	$480
NTS Truck Freight	shipment	2	$4,600	$9,200
Shoring	shipment	2	$100	$200
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	2,700	$6.57	$17,739

* Includes two warehouse attendants in Loading and Shipping

WORKSHEET SUMMARY		
Total Manhours	1,011	
Total Labor		**$36,432**
Total Materials		**$15,530**
Total Burial		**$17,739**
Total Cost		**$69,701**
Total Cost minus burial		**$51,962**

All costs are stated in FY01 Dollars

Comments and Assumptions

1. ISO's repackaged for shipment
2. 20% of total cu.ft. (MB & Drums) sorted as Non-Debris
3. 3% of total cu.ft. (all containers) sorted as Prohibited Items.

Prepared by: Hugh A. Clinger
Date Prepared: 05/02/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LEAD

PBS: 11
WBS: 1.1.M
Control Account: MMMC

Duration:
Fiscal Year:

Project: Low Level Waste

Campaign: NCT 2000 - Prohibited Items (lead)

Quantity Basis (containers and volume): approximately 374 cu.ft. in 374 drums

Charge Number: MMMC2
CAM: Dave Wood

Containers for Off-site Shipment: 374
Total Containers minus ROBs: 374

1 day = 10 mhrs

Make Entries In Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MLWRT/PFTR) Req'd	Maintenance (MLWRT/PFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	QA (QACENG) Req'd	QA (QACENG) Mhrs	WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning		14		357	0.05	7	0.05	7	0	0	0	0	0	0	0.05	7	0.05	7	0	0	0	0	0	0	0.05	7	0.5	69	0.5	69	0.5	69	0.75	103	0.05	7	0.05	7	0	0	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection Assumed Number of Samples/Visuals:	37	5	80	289	3	146	1	49	0	0	0	0	0	0	0.5	24	1	49	0	0	0	0	0	0	0.2	10	0.05	2	0.05	2	0	0	0.1	5	0	0	0.05	2	0	0	0	0	0	0
4. Characterization		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. Repackaging/Overpacking				998																																								
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	374	19.0	262	998	2	380	1	190	0.1	19	0	0	0	0	0.5	95	1	190	0	0	0	0	0	0	0.2	38	0.05	10	0.05	10	0	0	0.1	19	0.2	38	0.05	10	0	0	0	0	0	0
6. Container Movements				162																																								
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	374	4.7	45	162	1	47	0.5	24	0.5	24	0	0	0	0	0.2	9	1	47	0	0	0	0	0	0	0	0	0.05	2	0.05	2	0	0	0.1	5	0	0	0.05	2	0	0	0	0	0	0
7. Loading and Shipping				691																																								
ISOs	0	0	0	0	5	0	3	0	0.2	0	2	0	0.05	0	0.5	0	1	0	0	0	0	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	374	6.2	177	691	3	186	2	124	0	0	2	124	0.05	3	0.5	31	2	124	0	0	0	0	0	0	0.5	31	0.05	3	0.05	3	0	0	0.75	47	0.2	12	0.05	3	0	0	0	0	0	0
Total Manhours by Skill						*766*		*393*		*43*		*124*		*3*		*167*		*416*		*0*		*0*		*0*		*86*		*86*		*86*		*69*		*178*		*57*		*24*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	374	$40	$14,960
Full Anti-Cs	change	342	$9.68	$3,315
Normal Protective Clothing	change	222	$4.03	$894
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	6	$220	$1,364
Absorbent	each	374	$120	$44,880
Other Materials	each	374	$240	$89,760
Envirocare Truck Freight	shipment	8	$5,598	$44,784
Shoring	shipment	8	$100	$800
Envirocare Rail Freight	rail car	0	$9,900	$0
SUBCONTRACTS	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	37	$1,675	$62,645
Macroencapsulation	cu. ft.	111	$435	$48,285
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	2,992	$6.57	$19,657
Envirocare MW Fee	cu. ft.	252	$23	$5,796

WORKSHEET SUMMARY		
Total Manhours	2,497	
Total Labor		**$84,119**
Total Materials		**$200,757**
Total Subcontracts		**$110,930**
Total Burial		**$25,453**
Total Cost		**$421,259**
Total Cost		**$395,806**

All costs are stated in FY01 Dollars

Comments and Assumptions:

1. Assumes lead will be treated and disposed of at Envirocare.
2. 50 drums per shipment
3. 1 cu.ft. of lead per drum

Prepared by: Hugh A. Clinger
Date Prepared: 05/02/2001

Control Team Review:

Project Review:

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW NON-COMPACTABLE TRASH DISPOSITION

PBS: 11
WBS: 1.1.M
Control Account: MMMC

Duration:
Fiscal Year:

Project: Low Level Waste
Campaign: IIMSConc

Quantity Basis (containers and volume): approximately 2,850 cu.ft. in 38 metal boxes

Charge Number: MMMC2
CAM: Dave Wood

Containers for Off-site Shipment: 8
Total Containers minus ROBs: 38

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity	Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MLWRTRPPTR) Req'd	Maintenance (MLWRTRPPTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	QA (QACENG) Req'd	QA (QACENG) Mhrs
1. Campaign Planning	10		296	0.05	5	0.05	5	0	0	0	0	0	0	0.05	5	0.05	5	0	0	0	0
2. SSR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Trash Sorting			774																		
ISOs	0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0
Metal Boxes	38	9.5	202	774	4	380	1	95	0.1	10	0	0	0.1	10	1	95	1	95	0	0	0
Drums	0	0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																					
ROBs	0	0	0	1	0	1	0	0.25	0	2	0	0	0	0.2	0	1	0	0	0	0	0
5. Container Movements			55																		
ISOs	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Metal Boxes	38	1.6	15	55	1	16	0.5	8	0.5	8	0	0	0	0.2	3	1	16	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0.2	0	1	0	0	0	0	0
6. Loading and Shipping			1,055																		
ISOs	8	9.5	276	1055	5	475	3	285	0.2	19	0	0	0.05	5	0.5	48	1	95	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0
Total Manhours by Skill					*876*		*393*		*37*		*0*		*14*		*151*		*211*		*0*		*0*

Activity	WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning	0	0	0.05	5	0.5	52	0.5	52	0.5	52	1	104	0.05	5	0.05	5	0	0	0	0	0	0
2. SSR	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Trash Sorting																						
ISOs	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0.5	48	0.05	5	0.05	5	0	0	0.1	10	0.2	19	0.05	5	0	0	0	0	0	0
Drums	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																						
ROBs	0	0	0.1	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
5. Container Movements																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	1	0.05	1	0	0	0.1	2	0	0	0.05	1	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
6. Loading and Shipping																						
ISOs	0	0	0.5	48	0.05	5	0.05	5	0	0	0.5	48	0.2	19	0.05	5	0	0	0	0	0	0
Metal Boxes	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		*0*		*100*		*62*		*62*		*52*		*162*		*43*		*15*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	8	$2,000	$16,000
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	202	$9.68	$1,959
Normal Protective Clothing	change	292	$4.03	$1,176
3 Vehicles for Moves	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
1 Vehicle for ROB Moves	day	0	$55	$0
Absorbent	each	8	$120	$960
Other Materials	each	8	$240	$1,920
NTS Truck Freight	shipment	8	$4,600	$36,800
Shoring	shipment	8	$100	$800
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	10,800	$6.57	$70,956

* Includes two warehouse attendants in Loading and Shipping

WORKSHEET SUMMARY		
Total Manhours	2,180	
Total Labor		**$72,611**
Total Materials		**$59,615**
Total Burial		**$70,956**
Total Cost		**$203,182**
Total Cost minus burial		**$132,226**

All costs are stated in FY01 Dollars

Comments and Assumptions

1. ISO's repackaged for shipment
2. 20% of total cu.ft. (MB & Drums) sorted as Non-Debris
3. 3% of total cu.ft. (all containers) sorted as Prohibited Items.

Prepared by: Hugh A. Clinger
Date Prepared: 05/02/2001

Control Team Review:

Project Review:

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW NON-COMPACTABLE TRASH DISPOSITION

PBS: 11
WBS: 1.1.M
Control Account: MMMC

Duration:
Fiscal Year:

Project: Low Level Waste
Campaign: IIMSDeb

Quantity Basis (containers and volume): approximately 9,025 cu.ft. in 11 containers

Charge Number: MMMC2
CAM: Dave Wood

Containers for Off-site Shipment: 8
Total Containers minus ROBs: 11

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MLWRT/PPFTR) Req'd	Maintenance (MLWRT/PPFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	QA (QACENG) Req'd	QA (QACENG) Mhrs
1. Campaign Planning		10		288	0.05	5	0.05	5	0	0	0	0	0	0	0.05	5	0.05	5	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Trash Sorting				1,060																		
ISOs	8	12	256	978	4	480	1	120	0.1	12	0	0	0.1	12	1	120	1	120	0	0	0	0
Metal Boxes	3	1	21	82	4	40	1	10	0.1	1	0	0	0.1	1	1	10	1	10	0	0	0	0
Drums	0	0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																						
ROBs	0	0	0	0	1	0	1	0	0.25	0	2	0	0	0	0.2	0	1	0	0	0	0	0
5. Container Movements				98																		
ISOs	8	2.7	26	93	1	27	0.5	14	0.5	14	0	0	0	0	0.2	5	1	27	0	0	0	0
Metal Boxes	3	0.1	1	4	1	1	0.5	1	0.5	1	0	0	0	0	0.2	0	1	1	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
6. Loading and Shipping				1,426																		
ISOs	8	13	378	1426	5	650	3	390	0.2	26	0	0	0.05	7	0.5	65	1	130	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0
Total Manhours by Skill						*1,203*		*539*		*53*		*0*		*20*		*206*		*293*		*0*		*0*

Activity	WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning	0	0	0.05	5	0.5	51	0.5	51	0.5	51	1	101	0.05	5	0.05	5	0	0	0	0	0	0
2. SSR	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Trash Sorting																						
ISOs	0	0	0.5	60	0.05	6	0.05	6	0	0	0.1	12	0.2	24	0.05	6	0	0	0	0	0	0
Metal Boxes	0	0	0.5	5	0.05	1	0.05	1	0	0	0.1	1	0.2	2	0.05	1	0	0	0	0	0	0
Drums	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																						
ROBs	0	0	0.1	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
5. Container Movements																						
ISOs	0	0	0	0	0.05	1	0.05	1	0	0	0.1	3	0	0	0.05	1	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
6. Loading and Shipping																						
ISOs	0	0	0.5	65	0.05	7	0.05	7	0	0	1.8	48	0.2	26	0.05	7	0	0	0	0	0	0
Metal Boxes	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		*0*		*135*		*65*		*65*		*51*		*165*		*57*		*19*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	277	$9.68	$2,680
Normal Protective Clothing	change	405	$4.03	$1,634
3 Vehicles for Moves	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
1 Vehicle for ROB Moves	day	0	$55	$0
Absorbent	each	8	$120	$960
Other Materials	each	8	$240	$1,920
NTS Truck Freight	shipment	8	$4,600	$36,800
Shoring	shipment	8	$100	$800
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	10,800	$6.57	$70,956

* Includes two warehouse attendants in Loading and Shipping

WORKSHEET SUMMARY		
Total Manhours	2,871	
Total Labor		**$93,817**
Total Materials		**$44,794**
Total Burial		**$70,956**
Total Cost		**$209,567**
Total Cost minus burial		**$138,611**

All costs are stated in FY01 Dollars

Comments and Assumptions

1. ISO's repackaged for shipment
2. 20% of total cu.ft. (MB & Drums) sorted as Non-Debris
3. 3% of total cu.ft. (all containers) sorted as Prohibited Items.

Prepared by: Hugh A. Clinger
Date Prepared: 05/02/2001

Control Team Review:

Project Review:

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW NON-COMPACTABLE TRASH DISPOSITION

PBS: 11
WBS: 1.1.M
Control Account: MMMC

Duration:
Fiscal Year:

Project: Low Level Waste
Campaign: P6Debris

Quantity Basis (containers and volume): approximately 2,100 cu.ft. in 100 containers

Charge Number: MMMC2
CAM: Dave Wood

Containers for Off-site Shipment: 6
Total Containers minus ROBs: 100

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (M&WRI/PPFTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	QA (QACENG) Req'd	QA Mhrs
1. Campaign Planning		11		314	0.05	6	0.05	6	0	0	0	0	0	0	0.05	6	0.05	6	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Trash Sorting				734																		
ISOs	0	0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0
Metal Boxes	20	5	107	408	4	200	1	50	0.1	5	0	0	0.1	5	1	50	1	50	0	0	0	0
Drums	80	4	85	326	4	160	1	40	0.1	4	0	0	0.1	4	1	40	1	40	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																						
ROBs	0	0	0	0	1	0	1	0	0.25	0	2	0	0	0	0.2	0	1	0	0	0	0	0
5. Container Movements				73																		
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Metal Boxes	20	0.8	8	29	1	8	0.5	4	0.5	4	0	0	0	0	0.2	2	1	8	0	0	0	0
Drums	80	1	12	45	1	13	0.5	7	0.5	7	0	0	0	0	0.2	3	1	13	0	0	0	0
6. Loading and Shipping				990																		
ISOs	6	9	262	990	5	450	3	270	0.2	18	0	0	0.05	5	0.5	45	1	90	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0
Total Manhours by Skill						*837*		*376*		*38*		*0*		*14*		*145*		*207*		*0*		*0*

Activity	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning	0	0	0.05	6	0.5	55	0.5	55	0.5	55	1	110	0.05	6	0.05	6	0	0	0	0	0	0
2. SSR	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Trash Sorting																						
ISOs	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0.5	25	0.05	3	0.05	3	0	0	0.1	5	0.2	10	0.05	3	0	0	0	0	0	0
Drums	0	0	0.5	20	0.05	2	0.05	2	0	0	0.1	4	0.2	8	0.05	2	0	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																						
ROBs	0	0	0.1	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
5. Container Movements																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0.1	1	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.05	1	0.05	1	0	0	0.1	1	0	0	0.05	1	0	0	0	0	0	0
6. Loading and Shipping																						
ISOs	0	0	0.5	45	0.05	5	0.05	5	0	0	0.4	36	0.2	18	0.05	5	0	0	0	0	0	0
Metal Boxes	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		*0*		*96*		*65*		*65*		*55*		*157*		*42*		*16*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	6	$2,000	$12,000
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	192	$9.68	$1,856
Normal Protective Clothing	change	282	$4.03	$1,138
3 Vehicles for Moves	day	0	$165	$0
4 Vehicles for Loading	day	9	$220	$1,980
1 Vehicle for ROB Moves	day	0	$55	$0
Absorbent	each	6	$120	$720
Other Materials	each	6	$240	$1,440
NTS Truck Freight	shipment	6	$4,600	$27,600
Shoring	shipment	6	$100	$600
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	8,100	$6.57	$53,217

* Includes two warehouse attendants in Loading and Shipping

WORKSHEET SUMMARY		
Total Manhours	2,110	
Total Labor		**$70,616**
Total Materials		**$47,334**
Total Burial		**$53,217**
Total Cost		**$171,166**
Total Cost minus burial		**$117,949**

All costs are stated in FY01 Dollars

Comments and Assumptions

1. ISO's repackaged for shipment
2. 20% of total cu.ft. (MB & Drums) sorted as Non-Debris
3. 3% of total cu.ft. (all containers) sorted as Prohibited Items.
4. Shipment to include inventory from SILO 1001

Prepared by: Hugh A. Clinger
Date Prepared: 05/02/2001

Control Team Review: _____

Project Review: _____

MMMC3

YARD SCRAP & ROLLING STOCK

09/07/2001
11:31 AM

PBS: OHFN11
WBS: 1.1.M.C
CTRL ACCT: MMMC
CHARGE NO: MMMC3
COMMENT NO: R1-F11-008

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: CRPNTR **CARPENTER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	0.0	18.0	17.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0
Cum Hours:	0.0	18.0	35.0	35.0	35.0	40.0	40.0	40.0	40.0	40.0
Yr Total Cost:	0	587	587	0	0	207	0	0	0	0
Cum Total Cost:	0	587	1,174	1,174	1,174	1,381	1,381	1,381	1,381	1,381

Resource: HAZWAT **HAZWAT** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	0.0	392.5	507.2	509.3	507.2	481.8	0.0	0.0	0.0	0.0
Cum Hours:	0.0	392.5	899.7	1,409.0	1,916.2	2,398.0	2,398.0	2,398.0	2,398.0	2,398.0
Yr Total Cost:	0	11,894	16,281	17,310	18,263	18,533	0	0	0	0
Cum Total Cost:	0	11,894	28,175	45,485	63,748	82,281	82,281	82,281	82,281	82,281

Resource: HEOOPR **HEAVY EQUIP OPERATOR** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	0.0	168.2	254.1	255.1	254.1	247.5	0.0	0.0	0.0	0.0
Cum Hours:	0.0	168.2	422.3	677.4	931.5	1,179.0	1,179.0	1,179.0	1,179.0	1,179.0
Yr Total Cost:	0	5,571	8,912	9,476	9,997	10,402	0	0	0	0
Cum Total Cost:	0	5,571	14,483	23,959	33,956	44,358	44,358	44,358	44,358	44,358

Resource: INHTEC **INDUST HYGIENIST TEC** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	0.0	249.0	48.0	43.0	0.0	17.0	0.0	0.0	0.0	0.0
Cum Hours:	0.0	249.0	297.0	340.0	340.0	357.0	357.0	357.0	357.0	357.0
Yr Total Cost:	0	9,878	2,017	1,913	0	856	0	0	0	0
Cum Total Cost:	0	9,878	11,895	13,809	13,809	14,665	14,665	14,665	14,665	14,665

INCLUDES ESCALATION COSTS

09/07/2001
11:31 AM

PBS: OHFN11
WBS: 1.1.M.C
CTRL ACCT: MMMC
CHARGE NO: MMMC3
COMMENT NO: R1-F11-008

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

RESOURCE TOTALS FOR: MAT300

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Units:	0.0	83,918.4	91,576.5	82,290.8	83,796.5	89,984.8	0.0	0.0	0.0	0.0
Cum Units:	0.0	83,918.4	175,494.9	257,785.7	341,582.2	431,567.0	431,567.0	431,567.0	431,567.0	431,567.0
Yr Total Cost:	0	86,184	96,588	89,225	93,401	103,208	0	0	0	0
Cum Total Cost:	0	86,184	182,773	271,997	365,399	468,606	468,606	468,606	468,606	468,606

Resource: MPCREP **MATL PROP CTRL REP** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	0.0	89.5	53.4	26.5	26.4	32.2	0.0	0.0	0.0	0.0
Cum Hours:	0.0	89.5	142.9	169.4	195.8	228.0	228.0	228.0	228.0	228.0
Yr Total Cost:	0	3,044	1,924	1,012	1,067	1,390	0	0	0	0
Cum Total Cost:	0	3,044	4,968	5,980	7,047	8,438	8,438	8,438	8,438	8,438

Resource: MVOOPR **MOTOR VEHICLE OPER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	0.0	183.3	184.6	174.3	174.6	168.3	0.0	0.0	0.0	0.0
Cum Hours:	0.0	183.3	367.8	542.1	716.7	885.0	885.0	885.0	885.0	885.0
Yr Total Cost:	0	5,567	5,939	5,938	6,301	6,491	0	0	0	0
Cum Total Cost:	0	5,567	11,506	17,444	23,744	30,235	30,235	30,235	30,235	30,235

Resource: PJSMGR **PROJECT SUPPORT MGR** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	0.0	169.1	110.5	87.8	87.5	97.1	0.0	0.0	0.0	0.0
Cum Hours:	0.0	169.1	279.6	367.4	454.9	552.0	552.0	552.0	552.0	552.0
Yr Total Cost:	0	8,136	5,632	4,741	5,002	5,932	0	0	0	0
Cum Total Cost:	0	8,136	13,768	18,510	23,512	29,445	29,445	29,445	29,445	29,445

INCLUDES ESCALATION COSTS

09/07/2001
11:31 AM

PBS: OHFN11
WBS: 1.1.M.C
CTRL ACCT: MMMC
CHARGE NO: MMMC3
COMMENT NO: R1-F11-008

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: PRJMGR **PROJECT MANAGER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	0.0	36.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	0.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0
Yr Total Cost:	0	3,379	0	0	0	0	0	0	0	0
Cum Total Cost:	0	3,379	3,379	3,379	3,379	3,379	3,379	3,379	3,379	3,379

Resource: RADENG **RAD ENGINEER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	0.0	267.0	6.0	23.0	9.0	1.0	0.0	0.0	0.0	0.0
Cum Hours:	0.0	267.0	273.0	296.0	305.0	306.0	306.0	306.0	306.0	306.0
Yr Total Cost:	0	13,265	316	1,282	531	63	0	0	0	0
Cum Total Cost:	0	13,265	13,581	14,862	15,394	15,457	15,457	15,457	15,457	15,457

Resource: RADTEC **RAD TECH** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	0.0	280.6	275.5	278.5	275.5	316.0	0.0	0.0	0.0	0.0
Cum Hours:	0.0	280.6	556.0	834.5	1,110.0	1,426.0	1,426.0	1,426.0	1,426.0	1,426.0
Yr Total Cost:	0	10,065	10,466	11,204	11,740	14,390	0	0	0	0
Cum Total Cost:	0	10,065	20,532	31,736	43,476	57,867	57,867	57,867	57,867	57,867

Resource: S&HENG **SAFETY ENGINEER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	0.0	439.0	15.0	20.0	11.0	1.0	0.0	0.0	0.0	0.0
Cum Hours:	0.0	439.0	454.0	474.0	485.0	486.0	486.0	486.0	486.0	486.0
Yr Total Cost:	0	22,970	831	1,174	684	66	0	0	0	0
Cum Total Cost:	0	22,970	23,801	24,975	25,659	25,725	25,725	25,725	25,725	25,725

INCLUDES ESCALATION COSTS

09/07/2001
11:31 AM

PBS: OHFN11
WBS: 1.1.M.C
CTRL ACCT: MMMC
CHARGE NO: MMMC3
COMMENT NO: R1-F11-008

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

RESOURCE TOTALS FOR: SERVSUB

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Units:	0.0	0.0	10,875.0	16,783.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Units:	0.0	0.0	10,875.0	27,658.0	27,658.0	27,658.0	27,658.0	27,658.0	27,658.0	27,658.0
Yr Total Cost:	0	0	11,470	18,197	0	0	0	0	0	0
Cum Total Cost:	0	0	11,470	29,667	29,667	29,667	29,667	29,667	29,667	29,667

Resource: TPSREP **TECH/PROG SUPT REP** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	0.0	67.0	20.0	0.0	0.0	30.0	0.0	0.0	0.0	0.0
Cum Hours:	0.0	67.0	87.0	87.0	87.0	117.0	117.0	117.0	117.0	117.0
Yr Total Cost:	0	3,664	1,159	0	0	2,083	0	0	0	0
Cum Total Cost:	0	3,664	4,823	4,823	4,823	6,906	6,906	6,906	6,906	6,906

Resource: TRNLAB **TRANSPORT LABORER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	0.0	232.3	368.9	357.3	344.9	336.5	0.0	0.0	0.0	0.0
Cum Hours:	0.0	232.3	601.3	958.6	1,303.5	1,640.0	1,640.0	1,640.0	1,640.0	1,640.0
Yr Total Cost:	0	6,036	10,151	10,411	10,646	11,097	0	0	0	0
Cum Total Cost:	0	6,036	16,187	26,598	37,244	48,341	48,341	48,341	48,341	48,341

INCLUDES ESCALATION COSTS

09/07/2001
11:31 AM

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

PBS: OHFN11
WBS: 1.1.M.C
CTRL ACCT: MMMC
CHARGE NO: MMMC3
COMMENT NO: R1-F11-008

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: WSTENG **WASTE ENGINEER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	0.0	783.5	1,160.9	452.6	57.7	111.4	0.0	0.0	0.0	0.0
Cum Hours:	0.0	783.5	1,944.3	2,397.0	2,454.6	2,566.0	2,566.0	2,566.0	2,566.0	2,566.0
Yr Total Cost:	0	42,082	66,046	27,269	3,680	7,594	0	0	0	0
Cum Total Cost:	0	42,082	108,128	135,397	139,077	146,671	146,671	146,671	146,671	146,671

GRAND TOTALS:

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	0.0	3,374.9	3,021.1	2,227.4	1,747.9	1,844.8	0.0	0.0	0.0	0.0
Cum Hours:	0.0	3,374.9	6,396.0	8,623.4	10,371.2	12,216.0	12,216.0	12,216.0	12,216.0	12,216.0
Yr Total Cost:	0	232,323	238,320	199,151	161,314	182,312	0	0	0	0
Cum Total Cost:	0	232,323	470,643	669,794	831,108	1,013,421	1,013,421	1,013,421	1,013,421	1,013,421

CAM_____ CONTROL TEAM_____

INCLUDES ESCALATION COSTS

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR DEBRIS MOVEMENTS

PBS: 11
WBS: 1.1.M.C
Control Account: MMMC

Duration:
Fiscal Year:

Project: Low Level Waste-ROLLING STOCK-MMMC3

Campaign: Rolling Stock

Quantity Basis (containers and volume): approximately 180,374 cu.ft.

Charge Number: MMMC3
CAM: Dave Wood

1 day = 10 mhrs

Make Entries In Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MLWRTI/PFTR) Req'd	Maintenance (MLWRTI/PFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	QA (QACENG) Req'd	QA (QACENG) Mhrs
1. Campaign Planning		10		145	0.05	5	0.05	5	0	0	0	0	0	0	0.05	5	0.1	10	0	0	0	0
2. Debris Downsizing																						
ROBs	248	40	725	2,599	2	806	0	0	2	806	0.5	202	0.05	20	0.5	202	1	403	0	0	0	0
3. ROB/ISO/Pallet Movements (assumes round trip for ROBs)				2,763																		
ROBs	248	46	753	2763	1	461	1	461	0.25	115	2	921	0	0	0.2	92	1	461	0	0	0	0
ISOs	0	0	0	0	1	0	1	0	0.25	0	2	0	0	0	0.2	0	1	0	0	0	0	0
Pallets	0	0	0	0	1	0	1	0	0.25	0	2	0	0	0	0.2	0	1	0	0	0	0	0
Total Manhours by Skill						*1,272*		*466*		*921*		*1,123*		*20*		*299*		*874*		*0*		*0*

Activity	WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal. (S&HENG) Req'd	Safety Anal. (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning	0	0	0.05	5	0	0	0	0	0	0	1	100	0.05	5	0.05	5	0	0	0.05	5	0	0
2. Debris Downsizing																						
ROBs	0	0	0	0	0.00	0	0.05	20	0	0	0.25	101	0.05	20	0.05	20	0	0	0	0	0	0
3. ROB/ISO/Pallet Movements (assumes round trip for ROBs)																						
ROBs	0	0	0.1	46	0.05	23	0.05	23	0	0	0.1	46	0.2	92	0.05	23	0	0	0	0	0	0
ISOs	0	0	0.1	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Pallets	0	0	0.1	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		*0*		*51*		*23*		*43*		*0*		*247*		*117*		*48*		*0*		*5*		*0*

MATERIALS	Unit	Quantity	Rate	Total
Full Anti-Cs	change	725	$9.68	$7,022
Normal Protective Clothing	change	753	$4.03	$3,035
3 Vehicles for Moves	day	0	$165	$0
1 Vehicle-Down/ROB Move	day	46	$55	$2,533

Worksheet Summary		
Total Labor		**$168,799**
Total Hours	5,508	
Total Materials		**$12,590**
Total Cost minus burial		**$181,389**

All Costs stated in FY01 Dollars

Comments and Assumptions:

Prepared by: Hugh A. Clinger
Date Prepared: 05/01/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR DEBRIS MOVEMENTS

PBS: 11 Duration:
WBS: 1.1.M.C Fiscal Year:
Control Account:

Project: Low Level Waste-ROLLING STOCK-MMMC3
Campaign: ROLLING STOCK- PROHIBITED ITEMS

Quantity Basis (containers and volume): approximately 3,773 cu.ft. or 2% of 184,147 cu.ft.

Charge Number: MMMC3
CAM:

1 day = 10 mhrs **Make Entries in Yellow Shaded Areas Only**

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MILWRT/PIPFTR) Req'd	Maintenance (MILWRT/PIPFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	QA (QACENG) Req'd	QA (QACENG) Mhrs	WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning		10		145	0.05	5	0.05	5	0	0	0	0	0	0	0.05	5	0.1	10	0	0	0	0	0	0	0.05	5	0	0	0	0	0	0	1	100	0.05	5	0.05	5	0	0	0.05	5	0	0
2. Debris Downsizing																																												
ROBs	5	1	18	63	2	16	0	0	2	16	2	16	0.05	0	0.5	4	1	8	0	0	0	0	0	0	0	0	0.00	0	0.05	0	0	0	0.1	1	0.05	0	0.05	0	0	0	0	0	0	0
3. ROB/ISO/Pallet Movements				0																																								
(assumes round trip for ROBs)																																												
ROBs	0	0	0	0	1	0	1	0	0.25	0	2	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0.1	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
ISOs	0	0	0	0	1	0	1	0	0.25	0	2	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0.1	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Pallets	0	0	0	0	1	0	1	0	0.25	0	2	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0.1	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						*21*		*5*		*16*		*16*		*0*		*9*		*18*		*0*		*0*		*0*		*5*		*0*		*0*		*0*		*101*		*5*		*5*		*0*		*5*		*0*

MATERIALS	Unit	Quantity	Rate	Total
Full Anti-Cs	change	18	$9.68	$177
Normal Protective Clothing	change	0	$4.03	$0
3 Vehicles for Moves	day	0	$165	$0
1 Vehicle-Down/ROB Move	day	0	$55	$0

Worksheet Summary

Total Labor		**$8,282**
Total Hours	208	
Total Materials		**$177**
Total Cost minus burial		**$8,459**

All Costs stated in FY01 Dollars

Comments and Assumptions:
1. 16% of 3,773 cu.ft. = 603 cu.ft. NTS
2. 79% of 3,773 cu.ft.= 2,969 cu.ft. to Recycling
3. 5% of 3,773 cu.ft. = 189 cu.ft to Mixed Waste

Prepared by: Hugh A. Clinger
Date Prepared: 05/01/2001

Control Team Review: _____

Project Review: _____

Labor Rate Calculations

Hazwat Labor	$401	MVO Labor	$147	HEO Labor	$479	TL Labor	$392	Maint Labor	$12	Sup Labor	$456	RCT Labor	$538	NTS Labor	$0	QA Labor	$0	WAO Labor	$0	ST Labor	$134	RE Labor	$0	SE Labor	$22	SA Labor	$0	WE Labor	$4,848	MCA Labor	$177	TO Labor	$264	Buy Labor	$0	PM Labor	$415	Admin Labor	$0
HAZWAT		MVOOPR		HEOOPR		TRNLAB		MILWRT		OPRMGR		RADTEC		QACENG		QAENG		WSTENG		SHTEC		RADENG		SHENG		SHENG		WSTENG		MPCREP		TPSREP		BUYCON		PRJMGR		CLERKS	

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LIQUID MIXED WASTES

PBS: 11 | Duration:
WBS: 1.1.M.C | Fiscal Year:
Control Account: MMMC

Project: Low Level Waste
Campaign: Rolling Stock

Quantity Basis (containers and volume): approximately 175 cu.ft of oil

Charge Number: MMMC3
CAM: Dave Wood

1 day = 10 mhrs

Make Entries In Yellow Shaded Areas Only

Total Containers minus ROBs: 24

Activity		Days	PPE Count	Total Mhrs	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MLWRT/RPFTR) Req'd	Maintenance (MLWRT/RPFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	QA (QACENG) Req'd	QA (QACENG) Mhrs	WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning		10		225	0.05	5	0.05	5	0	0	0	0	0	0	0.1	10	0.1	10	0	0	0	0	0	0	0.25	26	0.1	10	0.1	10	0.1	10	1	102	0.05	5	0.05	5	0	0	0.25	26	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
3. Sampling/Visual Inspection Assumed Number of Samples/Visuals: 2		0	5	19	3	9	1	3	0	0	0	0	0	0	0.5	2	1	3	0	0	0	0	0	0	0.2	1	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
4. Characterization		36	0	180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	180	0	0	0	0	0	0	0	0	0	0
5. Liquid Bulking																																												
Drums	24	2	41	209	4	83	1	21	0	0	0	0	0.2	4	0.5	10	1	21	0	0	0	0	0	0	1	21	0.05	1	0.05	1	0	0	2	42	0.2	4	0.05	1	0	0	0	0	0	0
6. TSCA Shipping																																												
Tanker	0	1	31	147	3	44	1	15	0	0	0	0	0.2	3	0.5	7	2.5	37	0	0	0	0	0	0	0.5	7	0.05	1	0.05	1	0	0	2	29	0.2	3	0	0	0	0	0	0	0	0
7. Container Movements				0																																								
ISOs	0	0	0	0	2	0	1	0	0.1	0	2	0	0	0	0.25	0	0.5	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	2	0	1	0	0.1	0	2	0	0	0	0.25	0	0.5	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	2	0	1	0	0.1	0	2	0	0	0	0.25	0	0.5	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						*142*		*44*		*0*		*0*		*7*		*30*		*71*		*0*		*0*		*0*		*54*		*12*		*12*		*10*		*354*		*12*		*6*		*0*		*26*		*0*

MATERIALS	Unit	Quantity	Rate	Total
Full Anti-Cs	change	46	$9.68	$442
Normal Protective Clothing	change	31	$4.03	$124
3 Vehicles- Moves/Repack	day	0	$165	$0
Labeling/Misc.Materials	each	1	$240	$120
Freight to Oak Ridge	shipment	0.5	$2,000	$1,000

SUBCONTRACTS	Unit	Quantity	Rate	Total
Commercial Treatment	gallon	0	$10	$0
Offsite Lab Analysis	sample	0	$1,675	$0
Required TSCA Analysis	batch	0.3	$47,000	$15,510

Worksheet Summary		
Total Manhours	780	
Total Labor		$31,465
Total Materials		$1,687
Total Subcontracts		$15,510
Total Cost		$48,662
Total Cost minus burial		$48,662

All costs are stated in FY01 Dollars.

Comments and Assumptions:

1. Assumes the only requirement for LLW liquids is movement to AWWT.
2. Assumes TSCA analysis will require three sampling events ($15,000 per event) per batch.

Prepared by: Hugh A. Clinger
Date Prepared: 05/01/2001

Control Team Review: _____

Project Review: _____

Comments

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LEAD

PBS 11 Duration
WBS 1.1.M.C Fiscal Year
Control Account MMMC

Project: Low Level Waste
Campaign: Rolling Stock

Quantity Basis (containers and volume): approximately 25 cu.ft. of lead (batteries)

Charge Number MMMC3
CAM Dave Wood

Containers for Off site Shipment: 4 1 day = 10 mhrs **Make Entries in Yellow Shaded Areas Only**
Total Containers minus ROBs: 4

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MAINTAPPFTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	QA (QACENG) Req'd	QA Mhrs
1. Campaign Planning		10		216	0.05	5	0.05	5	0	0	0	0	0	0	0.1	10	0.1	10	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection		0	1	3	3	2	1	1	0	0	0	0	0	0	0.5	0	1	1	0	0	0	0
Assumed Number of Samples/Visuals:	0																					
4. Characterization		36		180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. Repackaging/Overpacking				5																		
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0
Boxes	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0
Drums	4	0	1	5	2	2	1	1	0.1	0	0	0	0	0	0.5	0	1	1	0	0	0	0
6. Container Movements				0																		
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
7. Loading and Shipping				11																		
ISOs	0	0	0	0	5	0	3	0	0.2	0	2	0	0.05	0	0.5	0	1	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0
Drums	4	0	3	11	3	3	2	2	0	0	2	2	0.05	0	0.5	1	2	2	0	0	0	0
Total Manhours by Skill						11		8		0		2		0		11		14		0		0

Activity	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning	0	0	0.25	25	0.25	25	0.25	25	0.25	25	0.75	75	0.05	5	0.05	5	0	0	0	0	0	0
2. SSR	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
4. Characterization	0	0	0	0	0	0	0	0	0	0	0.5	180	0	0	0	0	0	0	0	0	0	0
5. Repackaging/Overpacking																						
ISOs	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
6. Container Movements																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
7. Loading and Shipping																						
ISOs	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.5	1	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		0		26		25		25		25		256		5		5		0		0		0

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	4	$40	$160
Full Anti-Cs	change	2	$9.68	$20
Normal Protective Clothing	change	3	$4.03	$12
3 Vehicles for Moves Repackaging	day	0	$165	$14
4 Vehicles for Loading	day	0	$220	$23
Absorbent	each	4	$120	$420
Other Materials	each	4	$240	$840
Envirocare Truck Freight	shipment	4	$5,598	$22,392
Shoring	shipment	4	$100	$400
Envirocare Rail Freight	rail car	0	$9,900	$0
SUBCONTRACTS	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$670
Macroencapsulation	cu. ft.	25	$435	$10,875
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$10.80	$0
Envirocare MW Fee	cu. ft.	30	$23	$681

WORKSHEET SUMMARY		
Total Manhours	414	
Total Labor		**$18,270**
Total Materials		**$24,281**
Total Subcontracts		**$11,545**
Total Burial		**$681**
Total Cost		**$54,777**
Total Cost		**$54,096**

All costs are stated in FY01 Dollars

Comments and Assumptions:
1. Assumes lead will be treated and disposed of at Envirocare.
2. Batteries

Prepared by: Hugh A. Clinger
Date Prepared: 05/01/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW NON-COMPACTABLE TRASH DISPOSITION

PBS: 11 Duration:
WBS: 1.1.M.C Fiscal Year:
Control Account: MMMC

Project: Low Level Waste
Campaign: ROLLING STOCK

Quantity Basis (containers and volume): approximately 2,969 cu.ft. mix (tires, batteries, oils, glycols)

Charge Number: MMMC3
CAM: Dave Wood

Containers for Off-site Shipment: 0 1 day = 10 mhrs Make Entries in Yellow Shaded Areas Only
Total Containers minus ROBs: 79

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MLWRK/PPTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	QA (QACENG) Req'd	QA Mhrs	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning		11		227	0.05	5	0.05	5	0	0	0	0	0	0	0.1	11	0.1	11	0	0	0	0	0	0	0.25	27	0.25	27	0.1	11	0.1	11	1	108	0.05	5	0.05	5	0	0	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Trash Sorting				0																																								
ISOs	0	0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																																												
ROBs	0	0	0	0	1	0	1	0	0.25	0	2	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0.1	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
5. Container Movements				0																																								
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
6. Loading and Shipping				743																																								
ISOs	3	4	116	428	5	200	3	120	0.2	8	0	0	0.05	2	0.5	20	1	40	0	0	0	0	0	0	0.5	20	0.05	2	0.05	2	0	0	0.1	4	0.2	8	0.05	2	0	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	76	3	86	315	3	90	2	60	0	0	2	60	0.05	2	0.5	15	2	60	0	0	0	0	0	0	0.5	15	0.05	2	0.05	2	0	0	0.1	3	0.2	6	0.05	2	0	0	0	0	0	0
Total Manhours by Skill						*295*		*185*		*8*		*60*		*4*		*46*		*111*		*0*		*0*		*0*		*62*		*30*		*14*		*11*		*115*		*19*		*9*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	3	$2,000	$6,000
Metal Boxes	each	0	$1,200	$0
Drums	each	76	$40	$3,040
Full Anti-Cs	change	0	$9.68	$0
Normal Protective Clothing	change	202	$4.03	$814
3 Vehicles for Moves	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
1 Vehicle for ROB Moves	day	0	$55	$0
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	76	$4,600	$349,600
Shoring	shipment	76	$100	$7,600
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$10.80	$0

* Includes two warehouse attendants in Loading and Shipping

WORKSHEET SUMMARY		
Total Manhours	970	
Total Labor		$31,950
Total Materials		$367,054
Total Burial		$0
Total Cost		$399,004
Total Cost minus burial		$399,004

All costs are stated in FY01 Dollars

Comments and Assumptions
1. ISOs loaded with tires
2. Drums loaded with (batteries, oils, glycols)
3. Actual shipping cost may very

Prepared by: Hugh A. Clinger
Date Prepared: 05/01/2001

Control Team Review:

Project Review:

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW NON-COMPACTABLE TRASH DISPOSITION

PBS: 11
WBS: 1.1.M.C
Control Account: MMMC

Duration:
Fiscal Year:

Project: Low Level Waste
Campaign: Rolling Stock

Quantity Basis (containers and volume): approximately 603 cu.ft (tires) to NTS

Charge Number: MMMC3
CAM: Dave Wood

Containers for Off-site Shipment: 1
Total Containers minus ROBs: 1

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MLWRTIPPTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	QA (QACENG) Req'd	QA Mhrs
1. Campaign Planning		10		210	0.05	5	0.05	5	0	0	0	0	0	0	0.1	10	0.1	10	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Trash Sorting				0																		
ISOs	0	0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0
Metal Boxes	0	0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0
Drums	0	0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																						
ROBs	0	0	0	0	1	0	1	0	0.25	0	2	0	0	0	0.2	0	1	0	0	0	0	0
5. Container Movements				0																		
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
6. Loading and Shipping				35																		
ISOs	1	0	9	35	5	16	3	10	0.2	1	0	0	0.05	0	0.5	2	1	3	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0
Total Manhours by Skill						21		15		1		0		0		12		13		0		0

Activity	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERK8) Req'd	Admin. Spt. Mhrs
1. Campaign Planning	0	0	0.25	25	0.25	25	0.10	10	0.10	10	1	100	0.05	5	0.05	5	0	0	0	0	0	0
2. SSR	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Trash Sorting																						
ISOs	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																						
ROBs	0	0	0.1	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
5. Container Movements																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
6. Loading and Shipping																						
ISOs	0	0	0.5	2	0.05	0	0.05	0	0	0	0.1	0	0.2	1	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		0		27		25		10		10		100		5		5		0		0		0

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	1	$2,000	$2,000
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	0	$9.68	$0
Normal Protective Clothing	change	9	$4.03	$38
3 Vehicles for Moves	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$72
1 Vehicle for ROB Moves	day	0	$55	$0
Absorbent	each	1	$120	$120
Other Materials	each	1	$240	$240
NTS Truck Freight	shipment	0	$4,600	$0
Shoring	shipment	0	$100	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	1,350	$10.80	$14,580

* Includes two warehouse attendants in Loading and Shipping

WORKSHEET SUMMARY		
Total Manhours	245	
Total Labor		**$9,984**
Total Materials		**$2,470**
Total Burial		**$14,580**
Total Cost		**$27,033**
Total Cost minus burial		**$12,453**

All costs are stated in FY01 Dollars

Comments and Assumptions

Prepared by: Hugh A. Clinger
Date Prepared: 05/01/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR YARD SCRAP MOVEMENTS TO OSDF (OMTA)

PBS: 11 | Duration
WBS: 1.1.M | Fiscal Year:
Control Account: MMMC

Project: Low Level Waste - Yard Scrap - MMMC3

Campaign: Yard Scrap

Quantity Basis (containers and volume): 62 ROBs with approximately 45,200 cu.ft.

Charge Number: MMMC3
CAM: Dave Wood

1 day = 10 mhrs Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MLWRT/PIPFTR) Req'd	Maintenance (MLWRT/PIPFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	QA (QACENG) Req'd	QA (QACENG) Mhrs	WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning		10		140	0.05	5	0.05	5	0	0	0	0	0	0	0.05	5	0.1	10	0	0	0	0	0	0	0.05	5	0	0	0	0	0	0	1	100	0.05	5	0.05	5	0	0	0	0	0	0
2. Debris Downsizing																																												
ROBs	62	10	227	786	2	202	0	0	2	202	2	202	0.05	5	0.5	50	1	101	0	0	0	0	0	0	0	0	0.00	0	0.05	5	0	0	0.1	10	0.05	5	0.05	5	0	0	0	0	0	0
3. ROB/ISO/Pallet Movements (assumes round trip for ROBs)				691																																								
ROBs	62	12	188	691	1	115	1	115	0.25	29	2	230	0	0	0.2	23	1	115	0	0	0	0	0	0	0.1	12	0.05	6	0.05	6	0	0	0.1	12	0.2	23	0.05	6	0	0	0	0	0	0
ISOs	0	0	0	0	1	0	1	0	0.25	0	2	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0.1	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Pallets	0	0	0	0	1	0	1	0	0.25	0	2	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0.1	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						*322*		*120*		*230*		*432*		*5*		*78*		*226*		*0*		*0*		*0*		*17*		*6*		*11*		*0*		*122*		*33*		*16*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
Full Anti-Cs	change	227	$9.68	$2,194
Normal Protective Clothing	change	188	$4.03	$759
3 Vehicles for Moves	day	0	$165	$0
1 Vehicle-Down/ROB Move	day	0	$55	$0

Worksheet Summary

Total Labor		**$49,534**
Total Hours	1,617	
Total Materials		**$2,953**
Total Cost minus burial		**$52,487**

All Costs stated in FY01 Dollars

Comments and Assumptions:

1. ROB = 729 cu.ft.

2. 1% of volume prohibited items to be combined with other similar waste streams

Prepared by: Hugh A. Clinger
Date Prepared: 05/01/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW ASBESTOS DISPOSITION

PBS: 11 | Duration
WBS: 1.1.M | Fiscal Year:
Control Account: MMMC

Project: Low Level Waste - Yard Scrap - MMMC3

Campaign: Yard Scrap - 1% prohibited items (asbestos, tires, & residues)

Charge Number: MMMC3
CAM: Dave Wood

Quantity Basis (containers and volume): approximately 350 cu.ft.

Containers for Off-site Shipment: 6 | 1 day = 10 mhrs | **Make Entries in Yellow Shaded Areas Only**
Total Containers minus ROBs: 0

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maint. Craft* (MILWRT/PIPFTR) Req'd	Maint. Craft* (MILWRT/PIPFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	QA (QACENG) Req'd	QA (QACENG) Mhrs	WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Buyer (BUYCON) Req'd	Buyer (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning		10		240	0.05	5	0.05	5	0	0	0	0	0	0	0.1	10	0.1	10	0	0	0	0	0	0	0.25	25	0.25	25	0.25	25	0.25	25	1	100	0.05	5	0.05	5	0	0	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Asbestos Sorting				304																																								
ISOs	1	3	66	243	7	182	0	0	0	0	0	0	0	0	0.5	13	1	26	0	0	0	0	0	0	0.2	5	0.25	7	0.05	1	0	0	0.1	3	0.2	5	0.05	1	0	0	0	0	0	0
Metal Boxes	5	1	17	61	7	46	0	0	0	0	0	0	0	0	0.5	3	1	7	0	0	0	0	0	0	0.2	1	0.25	2	0.05	0	0	0	0.1	1	0.2	1	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0.5	0	1	0	0	0	0	0	0	0	0.2	0	0.25	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																																												
ROBs	0	0	0	0	1	0	1	0	0.25	0	2	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0.1	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
5. Container Movements				0																																								
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
6. Loading and Shipping				35																																								
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	0.5	0	1	0	0	0	0	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	5	0	10	35	3	10	2	7	0.3	1	2	7	0.05	0	0.5	2	2	7	0	0	0	0	0	0	0.5	2	0.05	0	0.05	0	0	0	0.1	0	0.2	1	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0.3	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						242		12		1		7		0		28		49		0		0		0		33		33		27		25		104		12		7		0		0		0

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	5	$1,200	$6,000
Drums	each	0	$40	$0
Full Anti-Cs	change	83	$9.68	$802
Normal Protective Clothing	change	10	$4.03	$39
3 Vehicles for Moves	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$72
1 Vehicle for ROB Moves	day	0	$55	$0
Absorbent	each	6	$120	$720
Other Materials	each	6	$240	$1,440
NTS Truck Freight	shipment	1	$4,600	$4,600
Shoring	shipment	1	$100	$100
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	560	$10.80	$6,048

* Both skills are used fairly equally. Rate used is for a Millwright.

WORKSHEET SUMMARY		
Total Manhours	579	
Total Labor		$20,835
Total Materials		$13,772
Total Burial		$6,048
Total Cost		$40,655
Total Cost minus burial		$34,607

All costs stated in FY01 Dollars

Comments and Asumptions:
1. Residues @ 50 Cu.ft.= 1 metal box
2. Asbestos @ 200 Cu.ft= 3 metal boxes
3. Tires @ 100 Cu.ft. = 1.25 metal boxes

Prepared by: Hugh A. Clinger
Date Prepared: 05/01/2001

Control Team Review: _____ Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW COMPACTABLE TRASH DISPOSITION

PBS: 11 Duration:
WBS: 1.1.M Fiscal Year:
Control Account: MMMC

Project: Low Level Waste - Yard Scrap - MMMC3
Campaign: Yard Scrap - 1% Prohibited Items (aerosol cans)

Quantity Basis (containers and volume): approximately 86 cu.ft. in 12 containers

Charge Number: MMMC3
CAM: Dave Wood

Containers for Off-site Shipment: 0
Total Containers minus ROBs: 12

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor* (TRNLAB) Req'd	Tran. Labor* (TRNLAB) Mhrs	Maintenance (MILWRT/PIPFT) Req'd	Maintenance (MILWRT/PIPFT) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	QA (QACENG) Req'd	QA (QACENG) Mhrs	WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal. (S&HENG) Req'd	Safety Anal. (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning		10		175	0.05	5	0.05	5	0	0	0	0	0	0	0.1	10	0.1	10	0	0	0	0	0	0	0.25	25	0.5	50	0.5	50	0.05	5	0.05	5	0.05	5	0.05	5	0	0	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Trash Sorting/Compacting				39																																							
ISOs	0	0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	12	0.5	11	39	4	20	1	5	0.1	1	0	0	0.1	1	1	5	1	5	0	0	0	0	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	1	0.2	1	0.05	0	0	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																																											
ROBs	0	0	0	0	1	0	1	0	0.25	0	2	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0.1	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
5. Container Movements				0																																							
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
6. Loading and Shipping				0																																							
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	0.5	0	1	0	0	0	0	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						25		10		1		0		1		15		15		0		0		0		25		50		50		5		6		6		5		0		0		0

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	11	$9.68	$103
Normal Protective Clothing	change	0	$4.03	$0
3 Vehicles for Moves	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
1 Vehicle for ROB Moves	day	0	$55	$0
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	0	$4,600	$0
Shoring	shipment	0	$100	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$10.80	$0

* Includes two warehouse attendants in Loading and Shipping

WORKSHEET SUMMARY		
Total Hours	214	
Total Labor		$8,742
Total Materials		$103
Total Burial		$0
Total Cost		$8,846
Total Cost		$8,846

All Costs stated in FY01 Dollars

Comments and Assumptions:
1. Aersol cans punctured, drained
2. Emptied aerosols placed in drums and crushed
3. Drums can only be half-filled for crushing
4. Project estimates 86 cu.ft of aerosols
5. 86 cu.ft / 7.3 cu.ft = 12 drums
6. Will require 24 used drums for disposal
7. Estimate 1/2 gal per drum x 12 = 6 gallons

Prepared by: Hugh A. Clinger
Date Prepared: 05/01/2001

Control Team Review:

Project Review:

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LIQUID MIXED WASTES

PBS: 11 Duration:
WBS: 1.1.M Fiscal Year:
Control Account: MMMC

Project: Low Level Waste - Yard Scrap - MMMC3

Campaign: Yard Scrap - 1% Prohibited Items (Oil & Paint)

Quantity Basis (containers and volume): approximately 35 cu.ft. in 6 containers

Charge Number: MMMC3
CAM: Dave Wood

1 day = 10 mhrs

Make Entles in Yellow Shaded Areas Only

Total Containers minus ROBs: 6

Activity		Days	PPE Count	Total Mhrs	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MLWRTPFTR) Req'd	Maintenance (MLWRTPFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	QA (QACENG) Req'd	QA (QACENG) Mhrs	WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERK3) Req'd	Admin. Spt. (CLERK3) Mhrs
1. Campaign Planning		10		367	0.05	5	0.05	5	0	0	0	0	0	0	0.1	10	0.1	10	0	0	0	0	0	0	0.25	25	0.5	50	0.5	50	1	101	1	101	0.05	5	0.05	5	0	0	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection Assumed Number of Samples/Visuals: 1		0	1	5	3	2	1	1	0	0	0	0	0	0	0.5	0	1	1	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
4. Characterization		36	0	684	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.9	684	0	0	0	0	0	0	0	0	0	0
5. Liquid Bulking																																												
Drums	6	1	10	52	4	21	1	5	0	0	0	0	0.2	1	0.5	3	1	5	0	0	0	0	0	0	1	5	0.05	0	0.05	0	0	0	2	10	0.2	1	0.05	0	0	0	0	0	0	0
6. TSCA Loadout																																												
Tanker	0	0	8	37	3	11	1	4	0	0	0	0	0.2	1	0.5	2	2.5	9	0	0	0	0	0	0	0.5	2	0.05	0	0.05	0	0	0	2	7	0.2	1	0	0	0	0	0	0	0	0
7. Container Movements				0																																								
ISOs	0	0	0	0	2	0	1	0	0.1	0	2	0	0	0	0.25	0	0.5	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	2	0	1	0	0.1	0	2	0	0	0	0.25	0	0.5	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	2	0	1	0	0.1	0	2	0	0	0	0.25	0	0.5	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						39		15		0		0		2		15		25		0		0		0		32		51		51		101		802		7		5		0		0		0

MATERIALS	Unit	Quantity	Rate	Total
Full Anti-Cs	change	11	$9.68	$111
Normal Protective Clothing	change	8	$4.03	$31
3 Vehicles- Moves/Repack	day	0	$165	$0
Labeling/Misc.Materials	each	0	$240	$24
Freight to Oak Ridge	shipment	0.1	$2,000	$200
SUBCONTRACTS	**Unit**	**Quantity**	**Rate**	**Total**
Commercial Treatment	gallon	0	$10	$0
Offsite Lab Analysis	sample	0	$1,675	$0
Required TSCA Analysis	batch	0	$4,700	$0

Worksheet Summary

Total Manhours	1,145	
Total Labor		$51,737
Total Materials		$366
Total Subcontracts		$0
Total Cost		$52,103
Total Cost minus burial		$52,103

All costs are stated in FY01 Dollars.

Comments and Assumptions:

1. Assumes the only requirement for LLW liquids is movement to AWWT.
2. Assumes TSCA analysis will require three sampling events ($15,000 per event) per batch.
3. Included 6 gallons from aerosol pucturing

Prepared by: Hugh A. Clinger
Date Prepared: 05/01/2001

Control Team Review:

Project Review:

Comments

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LEAD

PBS: 11 | Duration:
WBS: 1.1.M | Fiscal Year:
Control Account: MMMC

Project: Low Level Waste - Yard Scrap - MMMC3
Campaign: Yard Scrap - 1% Prohibited Items (Macro Lead)

Quantity Basis (containers and volume): approximately 1 cu.ft in 1 container

Charge Number: MMMC3
CAM: Dave Wood

Containers for Off-site Shipment: 1 | 1 day = 10 mhrs | Make Entries in Yellow Shaded Areas Only
Total Containers minus ROBs: 1

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MLWRT/PPFTR) Req'd	Maintenance (MLWRT/PPFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	QA (QACENG) Req'd	QA (QACENG) Mhrs	WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning		10		245	0.05	5	0.05	5	0	0	0	0	0	0	0.1	10	0.1	10	0	0	0	0	0	0	0.25	25	0.5	50	0.5	50	0.05	5	0.75	75	0.05	5	0.05	5	0	0	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection		0	0	1	3	0	1	0	0	0	0	0	0	0	0.5	0	1	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Assumed Number of Samples/Visuals:	0																																										
4. Characterization		15		285	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.9	285	0	0	0	0	0	0	0	0	0	0
5. Repackaging/Overpacking				1																																							
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	1	0	0	1	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
6. Container Movements				0																																							
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
7. Loading and Shipping				3																																							
ISOs	0	0	0	0	5	0	3	0	0.2	0	2	0	0.05	0	0.5	0	1	0	0	0	0	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	1	0	1	3	3	1	2	1	0	0	2	1	0.05	0	0.5	0	2	1	0	0	0	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						7		6		0		1		0		10		11		0		0		0		25		50		50		5		360		5		5		0		0		0

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	1	$40	$40
Full Anti-Cs	change	1	$9.68	$5
Normal Protective Clothing	change	1	$4.03	$3
3 Vehicles for Moves Repackaging	day	0	$165	$4
4 Vehicles for Loading	day	0	$220	$6
Absorbent	each	1	$120	$120
Other Materials	each	1	$240	$240
Envirocare Truck Freight	shipment	1	$5,598	$5,598
Shoring	shipment	1	$100	$100
Envirocare Rail Freight	rail car	0	$9,900	$0
SUBCONTRACTS	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$168
Macroencapsulation	cu. ft.	1	$435	$435
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$10.80	$0
Envirocare MW Fee	cu. ft.	0	$23	$0

WORKSHEET SUMMARY		
Total Manhours	535	
Total Labor		**$24,037**
Total Materials		**$6,115**
Total Subcontracts		**$603**
Total Burial		**$0**
Total Cost		**$30,755**
Total Cost		**$30,755**

All costs are stated in FY01 Dollars

Comments and Assumptions:

1. Assumes lead will be treated and disposed of at Envirocare.

Prepared by: Hugh A. Clinger
Date Prepared: 05/01/2001

Control Team Review:

Project Review:

SECTION 3

5.0 RISK PLAN

Risk/Opportunity Identification and Analysis Form

Project: Low Level Waste		PBS Number: 11			Total Baseline Dollars (Minimum Case):				$6,412,846		
Evaluator: Todd Clark	Date: 03/28/01	WBS Number: 1.1.M.C									
CAM: Buckley	Date:	Control Account Number: MMMC									
Project Task	Risk and/or Opportunity	Potential Impact	Internal Or External Driver	Impact Cost $ (Maximum Case)	Risk Impact Level	Risk Probability %	Risk Probability Level	Probable Cost $ (Likeliest Case)	Risk Critical Value	Risk Handling Strategy	
Planning	Additional unplanned wastes identified	Project extension (based on 2 months)	Internal	$200,000.00	2	35	3	$70,000.00	2	Accept Risk, communicate and coordinate schedule	
Characterization	Additional sampling and analysis required to complete characterization.	Project delay and additional subcontract costs (based on +50 samplings/analyses +1 month delay)	Internal	$160,000.00	2	20	2	$32,000.00	2	Accept Risk, identify sampling needs, coordinate effort to meet project schedule	
Processing/Packaging	Equipment/vehicle failures affect planned production schedules	Project delay and additional execution costs related to lower than planned productivity and/or equipment rental (based on one month delay + three months rental)	Internal	$130,000.00	2	25	2	$32,500.00	2	Accept Risk. Maintain critical and routine spare parts inventories.	
Processing/Packaging	Additional non-conforming wastes identified during sorting/visuals	Greater quantities of higher processing cost wastes than identified in assumptions extends schedule and increases project cost (based on additional 2% prohibited items in Debris)	Internal	$600,000.00	2	15	2	$90,000.00	2	Accept Risk. Fully document assumptions used in preparing baseline.	
Processing/Packaging	Weather impacts beyond typical experience	Project delay and additional execution costs related to lower than planned productivity (based on 2 month delay in schedule)	Internal	$200,000.00	2	20	2	$40,000.00	2	Accept Risk.	
Shipping	Transportation Accident	Shipping program shutdown, affecting all related projects (based on 6 months down and 5% of site activities completely impacted)	Internal	$5,000,000.00	4	10	1	$500,000.00	3	Accept Risk associated with internal-related risk. Assume external risk can be compensated via carrier insurance.	
			Total:	$6,290,000.00			Total:	$764,500.00			
Shipping	Disposal site closure	Significant project delays, additional labor costs associated with retention beyond planned completion, potential to impact successor project plans (based on 3 month extension)	External	$300,000.00	2	5	1	$15,000.00	1		
Processing/Packaging	Catastrophic event, such as tornado damage to site	Project shut down (based on 6 months to address event and programs)	External	$500,000.00	2	10	1	$50,000.00	1		
Shipping	Innovative transfer of containerized debris to OSDF	Based on 50% of debris inventory to OSDF		($1,200,000.00)		50		($600,000.00)			

WBS DICTIONARY
CONTROL ACCOUNT/CHARGE NUMBER

U.S. DEPARTMENT OF ENERGY
WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION

1. PROJECT TITLE	2. DATE OF CONTRACT	
FEMP (DEFENSE)	12/01/2000	
3. IDENTIFICATION NUMBER		4. INDEX LINE NO.
DE-AC24-01OH20115		82
5. WBS ELEMENT CODE	6. WBS ELEMENT TITLE	
1.1.M.D	ASBESTOS DISPOSITION	
7. APPROVED CP NO.		8. DATE OF CHANGES
ORIGINAL SCOPE PER CP# FY01-0115-0011-00		12/01/2000
9. SYSTEM DESIGN DESCRIPTION	10. BUDGET AND REPORTING NUMBER	
CERCLA/ACA	EW05H3110	

11. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Materials
Subcontracts
ODC's

b. TECHNICAL CONTENT:

This element provides for the planning, administration/management, warehousing, surveillance, packaging, preparation, consolidation, and transfer/shipment of low level waste asbestos containing wastes for final disposition. These wastes include existing legacy and non-legacy asbestos. These wastes are to be prepared in accordance with Waste Acceptance Criteria (WAC) specifications and applicable transportation guidelines. These wastes will be managed in a manner that is consistent with the requirements of the FEMP S/RID and DOE Order 435.1. This work package is for current low level waste asbestos containerized before December 1, 2000 and for D&D activities in Plant 5 and 6. Newly generated asbestos and asbestos containing wastes containerized after December 1, 2000 are excluded from this scope except for that generated by D&D activities in Plants 5 and 6 and the 200 cubic feet of asbestos contaminated brick. Newly generated transite and legacy transite wastes are not covered by the scope of this element.

c. SCOPE OF WORK:

The Asbestos Disposition work scope provides for the collection, sorting, processing, and disposition of asbestos materials generated prior to December 1, 2000. These materials are in various containers consisting of ISOs, Metal Boxes, and Drums. Materials will be processed in a contamination area on site, staged, loaded, and shipped to NTS via truck carrier.

The asbestos waste stream destined for NTS is comprised of 704 containers,

U.S. DEPARTMENT OF ENERGY
WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION

1. PROJECT TITLE	2. DATE OF CONTRACT
FEMP (DEFENSE)	12/01/2000

3. IDENTIFICATION NUMBER	4. INDEX LINE NO.
DE-AC24-01OH20115	82

5. WBS ELEMENT CODE	6. WBS ELEMENT TITLE
1.1.M.D	ASBESTOS DISPOSITION

7. APPROVED CP NO.	8. DATE OF CHANGES
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/01/2000

9. SYSTEM DESIGN DESCRIPTION	10. BUDGET AND REPORTING NUMBER
CERCLA/ACA	EW05H3110

11. ELEMENT TASK DESCRIPTION

including ISOs, metal boxes, and drums that are known to contain some prohibited items and free liquids. The work scope will include efforts to coordinate field activities to open and inspect each container or skid of material, remove prohibited articles, decant water, add absorbent materials, seal the container, package for shipment, load, and ship to NTS. Prohibited items will be removed during the sorting of this waste and will be processed to meet disposal requirements at NTS or other off-site locations under this work package or may be recycled to avoid disposal. This waste stream also includes 200 cubic feet of asbestos brick, asbestos contaminated firebrick, and asbestos contaminated soil, which will be packaged for shipment and shipped to NTS.

WORK SCOPE DEFINITION
(Control Account)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 1

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.M.D	ASBESTOS DISPOSITION	
5. PERFORMING DIV/DEPARTMENT CODE	**6. ORIGINATOR NAME/PHONE**	**7. WBS ELEMENT MANAGER**
51	PAUL KELLOGG - EXT. 5096	JIM BUCKLEY - EXT. 3232
8. BUDGET AND REPORTING NUMBER	**9. BUDGET TITLE**	
EW05H3110	WASTE MANAGEMENT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		**11. ESTIMATED START / COMPLETION DATE**
ORIGINAL SCOPE PER CP# FY01-0115-0011-00		12/2000 - 04/2002
12. TASK IDENTIFICATION (CONTROL ACCOUNT)	**13. TASK DESCRIPTION (ONE LINE)**	
MMMD	ASBESTOS DISPOSITION	

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Material
Subcontracts
ODCs

b. TECHNICAL CONTENT:

This control account provides for the planning, administration/management, warehousing, surveillance, packaging, preparation, consolidation, and transfer/shipment of low level waste asbestos containing wastes for final disposition. These wastes include existing legacy and non-legacy asbestos. These wastes are to be prepared in accordance with Waste Acceptance Criteria (WAC) specifications and applicable transportation guidelines. These wastes will be managed in a manner that is consistent with the requirements of the FEMP S/RID and DOE Order 435.1. This work package is for current low level waste asbestos containerized before December 1, 2000 and for D&D activities in Plant 5 and 6. Newly generated asbestos and asbestos containing wastes containerized after December 1, 2000 are excluded from this scope except for that generated by D&D activities in Plants 5 and 6 and the 200 cubic feet of asbestos contaminated brick. Newly generated transite and legacy transite wastes are not covered by the scope of this control account.

c. SCOPE OF WORK:

The Asbestos Disposition work scope provides for the collection, sorting, processing, and disposition of asbestos materials generated prior to December 1, 2000. These materials are in various containers consisting of ISOs, Metal Boxes, and Drums. Materials will be processed in a contamination area on site,

Project Manager	Control Account Manager	Control Team Manager

WORK SCOPE DEFINITION
(Control Account)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 2

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.M.D	ASBESTOS DISPOSITION

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	PAUL KELLOGG - EXT. 5096	JIM BUCKLEY - EXT. 3232

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3110	WASTE MANAGEMENT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/2000 - 04/2002

12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ONE LINE)
MMMD	ASBESTOS DISPOSITION

14. ELEMENT TASK DESCRIPTION

staged, loaded, and shipped to NTS via truck carrier.

The asbestos waste stream destined for NTS is comprised of 704 containers, including ISOs, metal boxes, and drums that are known to contain some prohibited items and free liquids. The work scope will include efforts to coordinate field activities to open and inspect each container or skid of material, remove prohibited articles, decant water, add absorbent materials, seal the container, package for shipment, load, and ship to NTS. Prohibited items will be removed during the sorting of this waste and will be processed to meet disposal requirements at NTS or other off-site locations under this work package or may be recycled to avoid disposal. This waste stream also includes 200 cubic feet of asbestos brick, asbestos contaminated firebrick, and asbestos contaminated soil, which will be packaged for shipment and shipped to NTS.

d. WORK SPECIFICALLY EXCLUDED:

1) Asbestos waste already certified by WAO (44 ISOs) will not be returned to LLW.
2) Transite disposal will be scoped by the D&D projects.
3) Operation of the OSDF transfer area(s), associated waste staging costs, and waste placements costs are provided in OSDF project budgets.

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 1

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.M.D	ASBESTOS DISPOSITION

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	PAUL KELLOGG - EXT. 5096	JIM BUCKLEY - EXT. 3232

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3110	WASTE MANAGEMENT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/2000 - 04/2002

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
MMMD1	ASBESTOS DISPOSITION

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Material
Subcontracts
ODCs

b. TECHNICAL CONTENT:

This work package is organized into a single task that provides for the collection, sorting, processing, and disposition of asbestos wastes, generated prior to December 1, 2000 or associated with the Plant 5 and Plant 6 D&D Projects. The task is then broken down into five sub tasks and activities. These wastes are located in the former process area of the FEMP. These wastes are in various containers consisting of ISOs, Metal Boxes, and Drums. 200 cubic feet of asbestos contaminated brick, not containerized, is also included. Wastes will be processed in a contamination area on site, staged, loaded and shipped/transferred as appropriate.

This work package provides for the location, movement, inspection, processing, and disposition of asbestos contaminated LLRW from controlled areas through closure. This waste stream consists of asbestos contaminated type waste (piping insulation, PPE, etc) generated from projects and activities in potentially contaminated environments around the FEMP. This task also provides for the processing of all prohibited items and/or wastes requiring treatment, to achieve full disposition of the forecasted wastes of this waste category.

c. SCOPE OF WORK:

The asbestos waste stream as described in this work package is comprised of 704

Project Manager	Control Account Manager	Control Team Manager

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 2

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.M.D	ASBESTOS DISPOSITION	
5. PERFORMING DIV/DEPARTMENT CODE	**6. ORIGINATOR NAME/PHONE**	**7. WBS ELEMENT MANAGER**
51	PAUL KELLOGG - EXT. 5096	JIM BUCKLEY - EXT. 3232
8. BUDGET AND REPORTING NUMBER	**9. BUDGET TITLE**	
EW05H3110	WASTE MANAGEMENT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		**11. ESTIMATED START / COMPLETION DATE**
ORIGINAL SCOPE PER CP# FY01-0115-0011-00		12/2000 - 04/2002
12. TASK IDENTIFICATION (WORK PACKAGE)	**13. TASK DESCRIPTION (ONE LINE)**	
MMMD1	ASBESTOS DISPOSITION	

14. ELEMENT TASK DESCRIPTION

containers, including 47 ISOs, 378 metal boxes and 279 drums (105,690 cubic feet) which are known to contain some prohibited items and free liquids. 200 additional cubic feet of asbestos contaminated brick, which is not containerized is also included. This task coordinates field activities to locate and move, open and inspect each container or skid of waste, remove prohibited articles, decant water, add absorbent, seal package, package for shipment/transfer, load and dispose. Prohibited items (including batteries, aerosol cans, lead-bearing wastes, liquids, and solvent-soaked rags), to be removed during the sorting of this waste are estimated to be 0.7 percent of the waste volume. Many of these prohibited wastes require additional treatment or processing prior to disposal to achieve disposal acceptance criteria and /or regulatory compliance.

This work package includes the following sub-tasks:

Planning, including procedure and task order maintenance, procurement of supplies and containers, and coordination of secondary waste/prohibited items handling and processing.
Characterization, including providing supporting documentation for managing and dispositioning secondary wastes and prohibited items. WC is budgeted from central organizations and is not included here.
Processing, including delivery asbestos containers (drums and boxes) from controlled area locations to Building 71, inspecting the waste for prohibited items, decanting free liquids, absorbent addition, and treatment of secondary wastes/prohibited items to meet disposition requirements. The ISO containers will be delivered to a re-packaging area where they will be opened, sorted, prohibited items removed, and items re-bagged as required. The asbestos waste will be loaded into another ISO which has absorbent added for shipment.
Packaging, including preparing and labeling ISO containers for off-site shipment and repackaging secondary wastes/prohibited items for respective disposition paths.
Shipping, including shipment of asbestos wastes to NTS and wastes requiring off-site treatment and/or off-site disposal.
Offsite Treatment & disposition, of prohibited items identified during sorting process.

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 3

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.M.D	ASBESTOS DISPOSITION

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	PAUL KELLOGG - EXT. 5096	JIM BUCKLEY - EXT. 3232

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3110	WASTE MANAGEMENT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/2000 - 04/2002

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
MMMD1	ASBESTOS DISPOSITION

14. ELEMENT TASK DESCRIPTION

d. WORK SPECIFICALLY EXCLUDED:

1) Asbestos waste already certified by WAO (44 ISOs) will not be returned to LLW.
2) Transite disposal will be scoped by the D&D projects.
3) Operation of the OSDF transfer area(s), associated waste staging costs, and waste placements costs are provided in OSDF project budgets.

SECTION 4

1.0 NARRATIVE

1. PROJECT TITLE: WASTE MANAGEMENT	2. DATE: 09/10/01	3. PBS#: 11
4. WBS ELEMENT CODE: 1.1.M.D.	5. WBS ELEMENT TITLE: ASBESTOS DISPOSITION	
6. CAM NAME/ PHONE: JIM BUCKLEY/ 3232	7. CAM SIGNATURE:	
8. ORIGINAL/ CHANGE SCOPE/ PER CP#:	9. CONTROL ACCOUNT: MMMD	

SECTION 4: MMMD – ASBESTOS DISPOSITION

1.0 NARRATIVE

1.1 OVERVIEW

This work package provides for the planning, administration/management, warehousing, surveillance, packaging, preparation, consolidation, and transfer/shipment of low level waste asbestos containing wastes for final disposition. These wastes include existing legacy and non-legacy asbestos. These wastes are to be prepared in accordance with Waste Acceptance Criteria (WAC) specifications and applicable transportation guidelines. These wastes will be managed in a manner that is consistent with the requirements of the FEMP S/RID and DOE Order 435.1. This work package is for current low level waste asbestos containerized before December 1, 2000 and for D&D activities in Plant 5 and 6. Newly generated asbestos and asbestos containing wastes containerized after December 1, 2000 are excluded from this scope except for D&D activities in Plants 5 and 6 and the 200 cubic feet of asbestos contaminated brick. Newly generated transite waste and legacy transite waste are not covered by the scope of this work package.

1.2 ASSUMPTIONS/EXCLUSIONS

1.2.1 Assumptions

1.2.1.1 General

- Regulatory requirements remain static during the baseline performance period.
- Wastes do not require any type of criticality controls.
- Waste is non-RCRA. Any waste subsequently identified to be RCRA would be added as appropriate to other existing waste streams in the closure baseline and this task charge number provided for treatment and disposal.
- Waste can be passed through the Waste Characterization process without requiring any additional physical sampling. Existing process knowledge, sampling analysis and visual inspections will fulfill the need for characterization information.

- Asbestos wastes packaged after 12-01-00 will be budgeted by the waste generator in a separate PBS except for asbestos waste from D&D activities in Plants 5 and 6. Such waste will be budgeted by the waste generator from generation, through storage and to its ultimate disposal per DOE Order-435.1

- Not more than 1% of the volume of waste verified will be prohibited items.

- Prohibited items that require treatment prior to disposition included in the work package can be effectively dispositioned through other processes included in the closure baseline, such as the use of existing RCRA treatment contracts.

- FEMP maintenance work package will provide budget for replacements and repairs of general use equipment for this work package, such as fork trucks, scales, HEPA air units, and yard trucks.

- The standard absorbent for most waste is 15% Radsorb and 85% hydrated lime.

- Internal and external reporting requirements will not increase.

- Weather impacts on loading and shipping operations will not exceed what is typical for the FEMP.

- Necessary equipment is available to support operations.

R1-F11-005

- ~~No additional~~ Formal Management Assessment~~s~~ ~~are~~ is required for the work tasks associated with this work package.

1.2.1.2 NTS

- Approximately 1% of the volume of waste sorted will not meet the NTS WAC and require additional processing or long-term staging for OSDF disposal.

- DOT requirements for shipment of these wastes remain consistent with current standards throughout the FEMP closure.

- NTS remains viable and open for receiving this FEMP waste stream as planned throughout the FEMP closure without change of requirements, and there are no new requirements that would preclude burial of this waste.

- Disposal containers will be procured to Standard Industrial requirements.

- Alternate equivalent off-site disposition can be substituted for NTS disposition, based on cost, schedule, and other project-specific criteria, if requirements can be met.

1.2.2 Exclusions

R1-F11-004

- Asbestos waste already certified by WAO (51 ISOs) will not be returned to LLW.
- All newly generated asbestos waste packaged after December 1, 2000, except Plants 5 and 6 D&D, will be the financial responsibility of the generating activity, with the exception of D&D activities related to Plants 5 and 6.
- Transite disposal will be scoped by the D&D projects.
- Disposal costs at N
-
- TS and EnviroCare of Utah are excluded from this account and are covered in a separate burial charge paid by a DOE transfer of funds.
- Operation of the OSDF transfer area(s), associated waste staging costs, and waste placements costs are provided in OSDF project budgets.
- Functions provided from central organizations that are not budgeted by this project includes: Waste Acceptance Organization, Waste Characterization, and NTS Compliance. Note: The project will budget for sampling activities.

1.2.3 Government-Furnished Equipment/Services

R1-F11-004

- Nevada Test Site (NTS) Disposal Facility will be available to the FEMP and support scheduled activities.
- Government furnished equipment will be provided as needed to support the project operations.

1.3 DRIVERS

Drivers include both events (or activities) that must occur as predecessor or contemporary to the project, as well as significant requirements that must be met in the execution of the project.

1.3.1 Events

OSDF will return to full operation in FY-2004 and receive any asbestos that meets the WAC in a timely manner.

- NTS continues to operate in a manner consistent with present methods and schedules.

- OSDF OMTA(s) are made available to support disposition schedule.

1.3.2 Requirements

In addition to applicable elements from Closure Contract S/RID, the following additional requirements significantly affect the project.

- Operable Unit 3 requirements (decision and implementing documents)
- OSDF WAC Attainment Plan
- DOE/NV-325-Rev. 3, Nevada Test Site Waste Acceptance Criteria, dated December 2000.
- Envirocare of Utah contract-specific waste acceptance criteria.

1.4 PROJECT PHYSICAL DESCRIPTION

This work package is organized into one task that provides for the collection, sorting, processing, and disposition of asbestos wastes, generated prior to December 1, 2000 or associated with the Plant 5 and Plant 6 D&D Projects. The task is then broken down into five sub tasks and activities. These wastes are located in the former process area of the FEMP. These wastes are in various containers consisting of ISOs, Metal Boxes, and Drums. 200 cubic feet of asbestos contaminated brick, not containerized, is also included. Wastes will be processed in a contamination area on site, staged, loaded and shipped/transferred as appropriate.

1.4.1 Task #1 - MMMD1 – Asbestos Disposition

MMMD1 provides for the location, movement, inspection, processing, and disposition of asbestos contaminated LLRW from controlled areas through closure. This waste stream consists of asbestos contaminated type waste (piping insulation, PPE, etc) generated from projects and activities in potentially contaminated environments around the FEMP. This task also provides for the processing of all prohibited items and/or wastes requiring treatment, to achieve full disposition of the forecasted wastes of this waste category.

This task includes the following sub-tasks:

1) Planning

Planning, including procedure and task order maintenance, procurement of supplies and containers, and coordination of secondary waste/prohibited items handling and processing.

2) Characterization

Characterization, including providing supporting documentation for managing and dispositioning secondary wastes and prohibited items. WC is budgeted from central organizations and is not included here.

3) Processing

Processing including delivery asbestos containers (drums and boxes) from controlled area locations to Building 71, inspecting the waste for prohibited items, decanting free liquids, absorbent addition, and treatment of secondary wastes/prohibited items to meet disposition requirements. The ISO containers will be delivered to a re-packaging area, where they will be opened, sorted, prohibited items removed, and items re-bagged as required. The asbestos waste will be loaded into another ISO which has absorbent added for shipment.

4) Packaging

Packaging including preparing and labeling ISO containers for off-site shipment and repackaging secondary wastes/prohibited items for respective disposition paths.

5) Shipping

Shipping, including shipment of asbestos wastes to NTS and wastes requiring off-site treatment and/or off-site disposal.

6) Off-Site Treatment and Disposition

Off-site treatment and disposition of prohibited items identified during sorting process.

1.5 PROJECT PLAN/TECHNICAL SCOPE AND QUANTIFICATION

1.5.1 MMMD1 - Asbestos Disposition

The asbestos waste stream as described in this work package is comprised of 704 containers, including 47 ISOs, 378 metal boxes and 279 drums (105,263 cubic feet) which are known to contain some prohibited items and free liquids. 200 additional cubic feet of asbestos contaminated brick, which is not containerized is also included. This task coordinates field activities to locate and move, open and inspect each container or skid of waste, remove prohibited articles, decant water, add absorbent, seal package, package for shipment/transfer, load and dispose. Prohibited items (including batteries, aerosol cans, lead-bearing wastes, liquids, and solvent-soaked rags), to be removed during the sorting of this waste are estimated to be 0.7 percent of the waste volume. Many of these prohibited wastes require additional treatment or processing prior to disposal to achieve disposal acceptance criteria and /or regulatory compliance.

Prohibited items (including batteries, aerosol cans, lead-bearing materials, liquids, and solvent-soaked rags, etc.), to be removed during the sorting of this waste, will be processed to meet disposal requirements at the NTS or other off-site locations under this work package or may be recycled, when cost effective, to avoid disposal. Based on prior experience, the prohibited items/non-conforming wastes fraction of this waste stream is estimated as 5% RCRA waste requiring treatment (Lead Bearing Material, solvent soaked rags), 5% to site recycling programs (lead-acid batteries, tires), 15% as aerosol cans (to be punctured, liquids drained /collected, and crushed for disposal as debris), and 75% aqueous liquids (to be collected and sent to the AWWT for disposal. The table summarizes the planned management approach for each of the anticipated prohibited wastes.

Management Approach for Prohibited Items

Waste Type	Anticipated Volume (CF)	Management Approach	Disposal
Aerosol Cans	113	Collect in 16 drums, puncture and crush cans (~29CF crushed) Collect liquids (~15 gallons) in drum and transfer to bulking to incinerate off-site (subcontract)	Transfer to OSDF Ash to NTS
Lead-Acid Batteries and Tires to Recycling	37	Collect on 3 pallets and decontaminate	Release to recycler
Aqueous Liquids	563	Collect in tank	Transfer to AWWT
Other Lead bearing Material Solvent soaked rags	37 18.5 18.5	 Off-site treatment Dry or Off-Site treatment	 NTS or Off-site treatment
Total	**750**		

Management and disposition of the LLW asbestos contaminated waste stream is accomplished within the standardized project sub-task framework established for all PBS-11 project activities, comprised of sub-tasks and the associated specific activities as follows:

1) Subtask #1 - Planning

1.1) Plan/Scope - Planning

- Identify primary disposition paths for the asbestos contaminated wastes, develop secondary waste and prohibited items forecasts, and identify disposition paths for secondary wastes and prohibited items.

- Develop/maintain procedures to guide the work activities, and incorporate requirements and safety goals.

- Perform project planning support activities, including workforce task training, safety analyses, technical review board, DOT determinations, ISRC reviews, and readiness activities.

- Maintain performance/status tracking tools for this project and perform project execution oversight.

- Coordinate interface with other site projects to obtain treatment capabilities and existing disposition support for resulting prohibited wastes requiring treatment or additional processing.

1.2) Quantification - Planning

Planning activities for the disposition of asbestos contaminated trash are based on providing a continuing operations support and troubleshooting interface for this Task Order based operation. The disposition of the 750 CF prohibited items waste additionally requires the development of task orders to permit transfer of those wastes that can be managed with other similar wastes. This includes the development of 5 additional task orders (aerosol can processing, lead for decontamination/recycling, tires for decontamination/recycling, aqueous liquid collection and transfer to the AWWT, and organic liquid collection and transfer to treatment) for transferring and managing these wastes.

2) Subtask #2 - Characterization

2.1) Plan/Scope - Characterization

- Identify absorbent and waste compatibility requirements for off-site shipments.

- Perform characterization of secondary wastes (prohibited items/requiring processing) and verify they meet intended off-site disposal facility WAC.

2.2) Quantification - Characterization

Characterization activities for the disposition of asbestos are based on assumption that only off-site waste disposition requires additional formal waste characterization support, however, the only anticipated waste of this type is organic liquids collected from the aerosol can puncturing process. Due to the limited quantity of this waste stream from the trash sorting process in comparison to the overall bulk quantity of organic liquids to be processed [~ 15 gallons versus typical 20,000 gallon batch (~.09%)], the bulk characterization costs for this waste will not be distributed back to this work package. Field characterization activities are included in the processing sub-task as part of the trash sorting process, but are not budgeted by this sub-task as they are budgeted by central organizations.

3) Subtask #3 - Processing

3.1) Plan/Scope - Processing

FY01-mid-FY02

- Maintain Building 71 facilities to perform staging, sorting, and packaging operations.
- Maintain field characterization capability to support fast-turnaround guidance on unusual materials.
- Procure supplies, including absorbents, bags, tape, and containers (16 drums)(assume ISOs for waste will be procured and loaded ISOs will be reused.
- Collect containers and/or move containers from storage location(s) to processing area.
- Sort asbestos contaminated waste to remove prohibited items (estimated 1% of the waste) from the primary waste
- Containerize prohibited items (per table) and/or items requiring other processing, amending with specified absorbent materials.
- Verify the primary wastes meet the NTS WAC, as applicable.
- De-water containers into collection tank (estimated 563 CF) and transfer to AWWT for aqueous liquids treatment/disposition.
- Commingle of asbestos from all sources and package in ISOs for shipment and disposal at NTS.
- Perform treatment to support disposition of prohibited items and items requiring other processing, (includes decanting free liquids and processing for disposal, puncturing ~113 CF aerosol cans and dispositioning ~15 gallons collected liquids and ~29 CF crushed empty cans, and specific chemical treatments as required).
- Apply lockdown to asbestos brick and fire brick
- Double wrap asbestos brick and fire brick
- Bag contaminated soil
- Containerize asbestos brick, fire brick and contaminated soil.

3.2) Quantification - Processing

Processing activities for the disposition of asbestos are based on the assumptions that the current Building 71 sorting operation can sort 2 boxes per day or 0.5 ISOs of asbestos waste per day, utilizing a standard crew and after accounting for productivity impacts (see attached estimate). Prohibited items (estimated 1% of the total waste from asbestos waste sorting – 750CF) will be removed to collection containers as part of the sorting process. Processing of the prohibited items for disposal includes draining and crushing 113 CF of aerosol cans, transfer of 29CF crushed cans to ROBs for OSDF, collecting ~15 gallons of organic liquids in 1 drum, transfer of the liquid to the TSCA bulking operations, decontamination of 3 pallets of batteries and tires for release. Drying or treating 37 CF of material or drying and disposing of in the OSDF or NTS.

4) Subtask #4 - Packaging

4.1) Plan/Scope - Packaging

- Containerize/label prohibited items and/or items requiring other processing, amending with specified lockdown materials.
- Add absorbent to containers.
- Procure shipping containers.
- Load ISOs with metal boxes, drums and bags.
- Warehouse wastes pending field operations to prepare for shipments.

4.2) Quantification - Packaging

Packaging activities for the disposition of asbestos are based on the filling of 119 ISOs with boxes, drums, and bags of asbestos. Packaging for prohibited items is managed under programmatic efforts.

5) Subtask #5 - Shipping

5.1) Plan/Scope - Shipping

- Move/Load 119 asbestos containers and ship (119 shipments) to NTS by approved route.
- Move containerized wastes (asbestos for storage and prohibited items and other wastes for further processing) to storage.

R1-F11-004

- Move 51 pre-packaged asbestos ISOs from Plant 1 Pad to OMTA

5.1) Quantification - Shipping

Shipping activities for the disposition of asbestos contaminated trash are based on a throughput rate estimate of .5 ISO loadings per day, and 1 ISO loaded and shipped per every other day.

6) Subtask #6 – Off-Site Treatment and Disposition

6.1) Plan/Scope – Off-Site Treatment and Disposition

- Treat and dispose of 37 CF of lead bearing or solvent soaked materials.
- Move, load, and, ship 37 CF of lead bearing or solvent soaked materials.

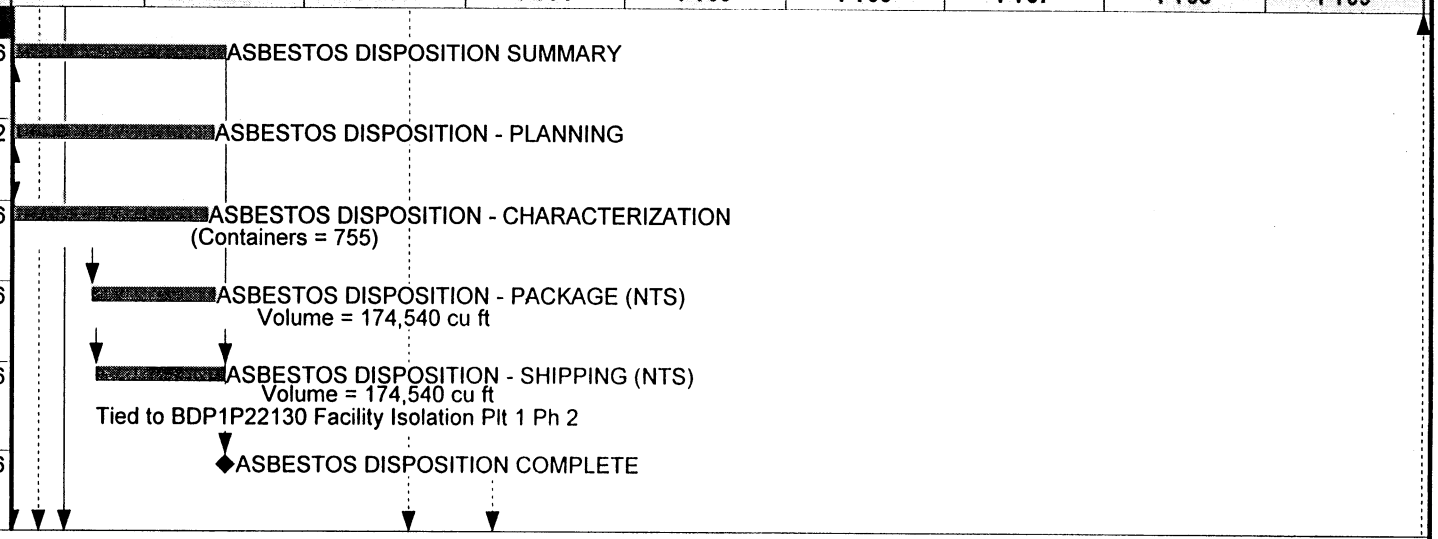
6.2) Quantification – Off-Site Treatment and Disposition

- Subcontractor treatment and disposal of ~6 drums of material requiring off site treatment.

SECTION 4

2.0 SCHEDULE

Activity ID	Orig Dur	Baseline Early start	Baseline Early finish	Total Float
LLW ASBESTOS DISPOSITION				
MMMD1H000	268*	04DEC00	04APR02	696
MMMD16410	252	04DEC00	07MAR02	712
MMMD16420	244	04DEC00	21FEB02	696
MMMD16440	155	04JUN01	13MAR02	696
MMMD16450	163	12JUN01	04APR02	696
MMPBS11005	0		04APR02	1,506



Start Date	01DEC00
Finish Date	30SEP09
Data Date	01DEC00
Run Date	12SEP01 10:13

BLCF - MM01

Sheet 9 of 13

FLUOR FERNALD, INC

Waste Management Baseline Schedule #2

Early Bar
Progress Bar
Critical Activity

Comment Ref: R1-D-559

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SECTION 4

3.0 MANPOWER PLANS

Manpower Planning Sheet (CR2)

MPS # 1MD01 LLW ASBESTOS DISPOSITION

	DRIVERS	START DATE	END DATE	TOT	FY 2001 Q1	FY 2001 Q2	FY 2001 Q3	FY 2001 Q4	FY 2002 Q1	FY 2002 Q2	FY 2002 Q3	FY 2002 Q4	FY 2003 Q1	FY 2003 Q2	FY 2003 Q3	FY 2003 Q4	FY 2004 Q1	FY 2004 Q2	FY 2004 Q3	FY 2004 Q4	FY 2005 Q1	FY 2005 Q2	FY 2005 Q3	FY 2005 Q4	FY 2006 Q1	FY 2006 Q2	FY 2006 Q3	FY 2006 Q4
206	ADMIN COMPLEX D&D	10/01/2004	07/03/2006																		xxx	xxx	xxx	xxx	xxx	xxx	xxx	x
207	EAST WAREHOUSE D&D	10/04/2004	12/14/2004																		xxx							
208	ELECTRICAL STATION D&D	01/03/2005	12/29/2005																			xxx	xxx	xxx	xxx			
209	PLANT 1 PHASE II D&D	10/04/2004	10/12/2005																		xxx	xxx	xxx	xxx	x			
216	Electrical Station (Garage/Heavy Equip. Bldg.)	01/10/2005	03/28/2005																			xxx						
217	Electrical Station (Main Electrical/Substations)	07/10/2006	09/28/2006																									xxx
218	General Sump Complex D&D	10/01/2001	01/07/2003						xxx	xxx	xxx	xxx	xxx	x														
219	General Sump (Elec. Power Center Bldg.)	04/01/2004	07/19/2004																xxx	x								
220	Plant 2 Complex D&D	10/01/2001	04/01/2004						xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	x									
221	Plant 3 Complex D&D	10/01/2001	12/10/2002						xxx	xxx	xxx	xxx	xxx															
222	Plant 8 Complex D&D	10/01/2001	06/26/2003						xxx	xxx	xxx	xxx	xxx	xxx	xxx													
223	Liquid Storage D&D	10/01/2002	03/31/2005										xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx						
224	Lab Complex D&D	10/01/2004	10/31/2005																		xxx	xxx	xxx	xxx	x			
225	Pilot Plant Complex D&D	10/01/2003	09/27/2005														xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx				
301	OSDF Summary Schedule	04/01/2004	12/23/2009																xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
411	AWWT Operations	10/02/2000	12/31/2009		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
502	WASTE PIT SHIP/DISPOSAL OPERATIONS	10/02/2000	08/01/2005		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xx				
601	Soils Excavation Project Summary	10/01/2003	12/31/2009														xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
705	SILOS 1, 2, & 3 CONSTRUCTION & CAT	04/01/2003	04/01/2005												xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	x					
707	SILOS 1, 2, & 3 OPERATIONS	10/03/2005	03/30/2007																						xxx	xxx	xxx	xxx
709	SILOS 1, 2, & 3 SAFE SHUTDOWN and D&D	04/02/2007	03/31/2008																									
801	Nuclear Materials Summary	10/02/2000	05/20/2002		xxx	xxx	xxx	xxx	xxx	xxx	xx																	
1001	Mixed Waste Summary	10/02/2000	09/30/2003		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx												
1101	Low Level Waste Summary	10/02/2000	09/30/2005		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx				
	Craft Labor	Carpenter		0.50	0	0	0	0.2	0.2	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Environmental Safety & H	Rad Engineer		0.60	0	0	0.1	0.2	0.2	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Environmental Safety & H	Rad Tech		5.10	0	0	0.4	1.7	1.7	1.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Environmental Safety & H	Safety Engineer		0.40	0.1	0	0.1	0.1	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Environmental Safety & H	Safety Tech.		3.80	0	0	0.3	1.3	1.3	0.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	General Labor	Hazwat		35.40	0.1	0.1	2.9	11.5	11.5	9.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Procurement	Material Property Control Rep.		3.60	0	0.1	0.3	1.2	1.2	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Task Order Write	Project Management	Tech/Program Support Rep.		1.10	0.1	0.1	0.1	0.3	0.3	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Transportation Labor	Heavy Equipment Operator		4.20	0	0	0.3	1.4	1.4	1.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Transportation Labor	Motor Vehicle Operator		22.70	0	0	1.7	7.6	7.6	5.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Waste Management	Waste Engineer		5.90	0.1	0.2	0.6	1.8	1.8	1.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Manpower Planning Sheet (CR2)

MPS # 1MD01 LLW ASBESTOS DISPOSITION

DRIVERS	START DATE	END DATE	FY 2007 Q1	FY 2007 Q2	FY 2007 Q3	FY 2007 Q4	FY 2008 Q1	FY 2008 Q2	FY 2008 Q3	FY 2008 Q4	FY 2009 Q1	FY 2009 Q2	FY 2009 Q3	FY 2009 Q4	FY 2010 Q1	FY 2010 Q2	FY 2010 Q3	FY 2010 Q4	FY 2011 Q1	FY 2011 Q2	FY 2011 Q3	FY 2011 Q4
206 ADMIN COMPLEX D&D	10/01/2004	07/03/2006																				
207 EAST WAREHOUSE D&D	10/04/2004	12/14/2004																				
208 ELECTRICAL STATION D&D	01/03/2005	12/29/2005																				
209 PLANT 1 PHASE II D&D	10/04/2004	10/12/2005																				
216 Electrical Station (Garage/Heavy Equip. Bld	01/10/2005	03/28/2005																				
217 Electrical Station (Main Electrical/Substation	07/10/2006	09/28/2006																				
218 General Sump Complex D&D	10/01/2001	01/07/2003																				
219 General Sump (Elec. Power Center Bldg.)	04/01/2004	07/19/2004																				
220 Plant 2 Complex D&D	10/01/2001	04/01/2004																				
221 Plant 3 Complex D&D	10/01/2001	12/10/2002																				
222 Plant 8 Complex D&D	10/01/2001	06/26/2003																				
223 Liquid Storage D&D	10/01/2002	03/31/2005																				
224 Lab Complex D&D	10/01/2004	10/31/2005																				
225 Pilot Plant Complex D&D	10/01/2003	09/27/2005																				
301 OSDF Summary Schedule	04/01/2004	12/23/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx							
411 AWWT Operations	10/02/2000	12/31/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx							
502 WASTE PIT SHIP/DISPOSAL OPERATION	10/02/2000	08/01/2005																				
601 Soils Excavation Project Summary	10/01/2003	12/31/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx							
705 SILOS 1, 2, & 3 CONSTRUCTION & CAT	04/01/2003	04/01/2005																				
707 SILOS 1, 2, & 3 OPERATIONS	10/03/2005	03/30/2007	xxx	xxx																		
709 SILOS 1, 2, & 3 SAFE SHUTDOWN and D	04/02/2007	03/31/2008			xxx	xxx	xxx	xxx														
801 Nuclear Materials Summary	10/02/2000	05/20/2002																				
1001 Mixed Waste Summary	10/02/2000	09/30/2003																				
1101 Low Level Waste Summary	10/02/2000	09/30/2005																				

		FY 2007 Q1	FY 2007 Q2	FY 2007 Q3	FY 2007 Q4	FY 2008 Q1	FY 2008 Q2	FY 2008 Q3	FY 2008 Q4	FY 2009 Q1	FY 2009 Q2	FY 2009 Q3	FY 2009 Q4	FY 2010 Q1	FY 2010 Q2	FY 2010 Q3	FY 2010 Q4	FY 2011 Q1	FY 2011 Q2	FY 2011 Q3	FY 2011 Q4
Craft Labor	Carpenter	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Rad Engineer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Rad Tech	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Safety Engineer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Safety Tech.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
General Labor	Hazwat	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Procurement	Material Property Control Rep.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Management	Tech/Program Support Rep.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transportation Labor	Heavy Equipment Operator	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transportation Labor	Motor Vehicle Operator	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Waste Management	Waste Engineer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Manpower Planning Sheet (CR2)

MPS # 1MD01 LLW ASBESTOS DISPOSITION

DRIVERS		START DATE	END DATE	TOT	FY 2001 Q1	FY 2001 Q2	FY 2001 Q3	FY 2001 Q4	FY 2002 Q1	FY 2002 Q2	FY 2002 Q3	FY 2002 Q4	FY 2003 Q1	FY 2003 Q2	FY 2003 Q3	FY 2003 Q4	FY 2004 Q1	FY 2004 Q2	FY 2004 Q3	FY 2004 Q4	FY 2005 Q1	FY 2005 Q2	FY 2005 Q3	FY 2005 Q4	FY 2006 Q1	FY 2006 Q2	FY 2006 Q3	FY 2006 Q4
Ops Supv	Maintenance	Project Support Manager		10.60	0.1	0	0.7	3.3	3.3	3.1	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Project Management	Project Mgr.		1.10	0.2	0.2	0.2	0.2	0.2	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RTR	QA/QC	QA Engineer		0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			Sheet Totals:	95.00	0.70	0.70	7.70	30.80	30.70	24.30	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Manpower Planning Sheet (CR2)

MPS # 1MD01 LLW ASBESTOS DISPOSITION

DRIVERS	START DATE	END DATE	FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Maintenance	Project Support Manager		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Management	Project Mgr.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QA/QC	QA Engineer		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Sheet Totals:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

SECTION 4

4.0 ESTIMATE

MMMD1

LLW ASBESTOS DISPOSITION

09/07/2001
1:45 PM

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

PBS: OHFN11
WBS: 1.1.M.D
CTRL ACCT: MMMD
CHARGE NO: MMMD1
COMMENT NO: R1-F11-004, R1-F11-005, R1-F11-008

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: CRPNTR **CARPENTER** **EOC: LABOR**
Res Dept: 951 **Overtime:** **Class: HOU**

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	84.4	110.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	84.4	195.0	195.0	195.0	195.0	195.0	195.0	195.0	195.0	195.0
Yr Total Cost:	2,612	3,607	0	0	0	0	0	0	0	0
Cum Total Cost:	2,612	6,219	6,219	6,219	6,219	6,219	6,219	6,219	6,219	6,219

Resource: HAZWAT **HAZWAT** **EOC: LABOR**
Res Dept: 951 **Overtime:** **Class: HOU**

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	6,619.1	8,759.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	6,619.1	15,379.0	15,379.0	15,379.0	15,379.0	15,379.0	15,379.0	15,379.0	15,379.0	15,379.0
Yr Total Cost:	190,565	265,457	0	0	0	0	0	0	0	0
Cum Total Cost:	190,565	456,022	456,022	456,022	456,022	456,022	456,022	456,022	456,022	456,022

Resource: HEOOPR **HEAVY EQUIP OPERATOR** **EOC: LABOR**
Res Dept: 951 **Overtime:** **Class: HOU**

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	766.7	1,017.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	766.7	1,784.0	1,784.0	1,784.0	1,784.0	1,784.0	1,784.0	1,784.0	1,784.0	1,784.0
Yr Total Cost:	24,121	33,686	0	0	0	0	0	0	0	0
Cum Total Cost:	24,121	57,807	57,807	57,807	57,807	57,807	57,807	57,807	57,807	57,807

Resource: INHTEC **INDUST HYGIENIST TEC** **EOC: LABOR**
Res Dept: 951 **Overtime:** **Class: SAL**

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	711.4	886.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	711.4	1,598.0	1,598.0	1,598.0	1,598.0	1,598.0	1,598.0	1,598.0	1,598.0	1,598.0
Yr Total Cost:	26,813	35,172	0	0	0	0	0	0	0	0
Cum Total Cost:	26,813	61,986	61,986	61,986	61,986	61,986	61,986	61,986	61,986	61,986

INCLUDES ESCALATION COSTS

09/07/2001
1:45 PM

PBS: OHFN11
WBS: 1.1.M.D
CTRL ACCT: MMMD
CHARGE NO: MMMD1
COMMENT NO: R1-F11-004, R1-F11-005, R1-F11-008

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

RESOURCE TOTALS FOR: MAT300

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Units:	225,596.5	657,984.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Units:	225,596.5	883,581.0	883,581.0	883,581.0	883,581.0	883,581.0	883,581.0	883,581.0	883,581.0	883,581.0
Yr Total Cost:	225,597	675,750	0	0	0	0	0	0	0	0
Cum Total Cost:	225,597	901,347	901,347	901,347	901,347	901,347	901,347	901,347	901,347	901,347

Resource: MPCREP **MATL PROP CTRL REP** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	734.8	854.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	734.8	1,589.0	1,589.0	1,589.0	1,589.0	1,589.0	1,589.0	1,589.0	1,589.0	1,589.0
Yr Total Cost:	23,747	29,061	0	0	0	0	0	0	0	0
Cum Total Cost:	23,747	52,808	52,808	52,808	52,808	52,808	52,808	52,808	52,808	52,808

Resource: MVOOPR **MOTOR VEHICLE OPER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	4,249.7	5,593.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	4,249.7	9,843.0	9,843.0	9,843.0	9,843.0	9,843.0	9,843.0	9,843.0	9,843.0	9,843.0
Yr Total Cost:	122,646	169,910	0	0	0	0	0	0	0	0
Cum Total Cost:	122,646	292,557	292,557	292,557	292,557	292,557	292,557	292,557	292,557	292,557

Resource: PJSMGR **PROJECT SUPPORT MGR** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,851.4	2,758.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,851.4	4,610.0	4,610.0	4,610.0	4,610.0	4,610.0	4,610.0	4,610.0	4,610.0	4,610.0
Yr Total Cost:	84,644	132,756	0	0	0	0	0	0	0	0
Cum Total Cost:	84,644	217,401	217,401	217,401	217,401	217,401	217,401	217,401	217,401	217,401

INCLUDES ESCALATION COSTS

09/07/2001
1:45 PM

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

PBS: OHFN11
WBS: 1.1.M.D
CTRL ACCT: MMMD
CHARGE NO: MMMD1
COMMENT NO: R1-F11-004, R1-F11-005, R1-F11-008

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: PRJMGR **PROJECT MANAGER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	276.0	142.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	276.0	418.0	418.0	418.0	418.0	418.0	418.0	418.0	418.0	418.0
Yr Total Cost:	24,609	13,325	0	0	0	0	0	0	0	0
Cum Total Cost:	24,609	37,935	37,935	37,935	37,935	37,935	37,935	37,935	37,935	37,935

Resource: RADENG **RAD ENGINEER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	121.0	132.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	121.0	253.0	253.0	253.0	253.0	253.0	253.0	253.0	253.0	253.0
Yr Total Cost:	5,713	6,556	0	0	0	0	0	0	0	0
Cum Total Cost:	5,713	12,269	12,269	12,269	12,269	12,269	12,269	12,269	12,269	12,269

Resource: RADTEC **RAD TECH** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	976.3	1,278.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	976.3	2,255.0	2,255.0	2,255.0	2,255.0	2,255.0	2,255.0	2,255.0	2,255.0	2,255.0
Yr Total Cost:	33,272	45,869	0	0	0	0	0	0	0	0
Cum Total Cost:	33,272	79,142	79,142	79,142	79,142	79,142	79,142	79,142	79,142	79,142

Resource: S&HENG **SAFETY ENGINEER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	75.4	59.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	75.4	135.0	135.0	135.0	135.0	135.0	135.0	135.0	135.0	135.0
Yr Total Cost:	3,748	3,118	0	0	0	0	0	0	0	0
Cum Total Cost:	3,748	6,867	6,867	6,867	6,867	6,867	6,867	6,867	6,867	6,867

INCLUDES ESCALATION COSTS

09/07/2001
1:45 PM

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

PBS: OHFN11
WBS: 1.1.M.D
CTRL ACCT: MMMD
CHARGE NO: MMMD1
COMMENT NO: R1-F11-004, R1-F11-005, R1-F11-008

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: TPSREP **TECH/PROG SUPT REP** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	219.7	227.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	219.7	447.0	447.0	447.0	447.0	447.0	447.0	447.0	447.0	447.0
Yr Total Cost:	11,413	12,434	0	0	0	0	0	0	0	0
Cum Total Cost:	11,413	23,847	23,847	23,847	23,847	23,847	23,847	23,847	23,847	23,847

Resource: WSTENG **WASTE ENGINEER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,203.1	1,346.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,203.1	2,550.0	2,550.0	2,550.0	2,550.0	2,550.0	2,550.0	2,550.0	2,550.0	2,550.0
Yr Total Cost:	61,394	72,346	0	0	0	0	0	0	0	0
Cum Total Cost:	61,394	133,740	133,740	133,740	133,740	133,740	133,740	133,740	133,740	133,740

GRAND TOTALS:

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	17,889.0	23,167.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	17,889.0	41,056.0	41,056.0	41,056.0	41,056.0	41,056.0	41,056.0	41,056.0	41,056.0	41,056.0
Yr Total Cost:	840,897	1,499,049	0	0	0	0	0	0	0	0
Cum Total Cost:	840,897	2,339,946	2,339,946	2,339,946	2,339,946	2,339,946	2,339,946	2,339,946	2,339,946	2,339,946

CAM_____ CONTROL TEAM_____

INCLUDES ESCALATION COSTS

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW ASBESTOS DISPOSITION

PBS: 11 Duration:
WBS: 1.1.M Fiscal Year:
Control Account: MMMD

Project: Low Level Waste Project - Asbestos-MMMD1
Campaign: ASB 1001- Plant 4 firebrick / D&D

Charge Number: MMMD1
CAM: Dave Wood

Quantity Basis (containers and volume): approximately 44,250 cu ft in 267 containers

Containers for Off site Shipment: 45
Total Containers minus ROBs: 267

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT)		MVO (MVOOPR)		HEO (HEOOPR)		Tran. Labor (TRNLAB)		Maintenance (MLWRT/PIPFTR)		Supervisor (OPRMGR)		Rad Tech (RADTEC)		NTS Comp. (QACENG)		QA (QACENG)		WAO (WSTENG)		Safety Tech (S&HTEC)		Rad Eng. (RADENG)		Safety Eng. (S&HENG)		Safety Anal (S&HENG)		Waste Eng. (WSTENG)		MC&A Clerk (MPCREP)		TO Writer (TPSREP)		Acquisitions (BUYCON)		Proj. Mgr. (PRJMGR)		Admin. Spt. (CLERKS)	
					Req'd	Mhrs	Req'd	Mhrs	Req'd	Mhrs	Req'd	Mhrs	Req'd	Mhrs	Req'd	Mhrs	Req'd	Mhrs	Req'd	Mhrs	Req'd	Mhrs	Req'd	Mhrs	Req'd	Mhrs	Req'd	Mhrs	Req'd	Mhrs	Req'd	Mhrs	Req'd	Mhrs	Req'd	Mhrs	Req'd	Mhrs	Req'd	Mhrs	Req'd	Mhrs	Req'd	Mhrs
1. Campaign Planning		13		112	0.02	3	0.02	3	0	0	0	0	0	0	0.03	4	0.01	1	0	0	0	0	0	0	0.01	2	0.01	1	0.01	1	0.02	3	0.5	67	0.05	7	0.05	7	0	0	0.1	13	0	0
2. SSR	1	16		400	0	0	0	0	0	0	0	0	0	0	0	0	0.5	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	320	0	0
3. Asbestos Sorting				10,575																																								
ISOs	13	36	702	2405	5	1800	0	0	0.1	36	0	0	0	0	0.7	252	0.25	90	0	0	0	0	0	0	0.12	43	0.05	18	0.01	4	0	0	0.2	72	0.2	72	0.05	18	0	0	0	0	0	0
Metal Boxes	254	113	1,894	8170	5	5650	1	1130	0	0	0	0	0	0	0.35	396	0.25	283	0	0	0	0	0	0	0.12	136	0.05	57	0.01	11	0	0	0.2	226	0.2	226	0.05	57	0	0	0	0	0	0
Drums	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0.35	0	0.25	0	0	0	0	0	0	0	0.12	0	0.05	0	0.01	0	0	0	0.2	0	0.2	0	0.05	0	0	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																																												
ROBs	0	0	0	0	1	0	1	0	0.25	0	2	0	0	0	0.03	0	0.25	0	0	0	0	0	0	0	0.06	0	0.01	0	0.01	0	0	0	0.2	0	0.2	0	0.05	0	0	0	0	0	0	0
5. Container Movements				0																																								
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.03	0	0.25	0	0	0	0	0	0	0	0	0	0.01	0	0.01	0	0	0	0.2	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.03	0	0.25	0	0	0	0	0	0	0	0	0	0.01	0	0.01	0	0	0	0.2	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.03	0	0.25	0	0	0	0	0	0	0	0	0	0.01	0	0.01	0	0	0	0.2	0	0	0	0.05	0	0	0	0	0	0	0
6. Loading and Shipping				4,956																																								
ISOs	45	120	1,692	4956	1	1200	1	1200	0.1	120	0	0	0.05	60	0.7	840	0.25	300	0	0	0.000	0	0	0	0.3	360	0.01	12	0.01	12	0	0	0.46	552	0.2	240	0.05	60	0	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	2	0	0.3	0	2	0	0.05	0	0.7	0	0.5	0	0	0	0	0	0	0	0.3	0	0.01	0	0.01	0	0	0	0.2	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	1	0	2	0	0.3	0	2	0	0.05	0	0.7	0	0.5	0	0	0	0	0	0	0	0.3	0	0.01	0	0.01	0	0	0	0.2	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						*8,653*		*2,333*		*156*		*0*		*60*		*1,491*		*754*		*0*		*0*		*0*		*540*		*88*		*28*		*3*		*917*		*545*		*141*		*0*		*333*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	32	$2,000	$64,000
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	2596	$9.68	$25,129
Normal Protective Clothing	change	1692	$4.03	$6,819
3 Vehicles for Moves	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
1 Vehicle for ROB Moves	day	0	$55	$0
Absorbent	each	254	$322	$81,788
Other Materials	each	45	$240	$10,800
NTS Truck Freight	shipment	45	$4,600	$207,000
Shoring	shipment	45	$100	$4,500
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	60,750	$8.69	$527,918

* Both skills are used fairly equally. Rate used is for a Millwright.

WORKSHEET SUMMARY		
Total Manhours	16,043	
Total Labor		$525,355
Total Materials		$400,036
Total Burial		$527,918
Total Cost		$1,453,308
Total Cost minus burial		$925,391

All costs stated in FY01 Dollars

Comments and Asumptions:
1. Minor repackaging required.
2. Metal boxes will be overpacked into ISO's (8 metal boxes per ISO)
3. Quantity information provided by project (LLW Campaign status document).
4. Charge Code- BCAW1
5. ISOs' not repackaged
6. WAO Manpower hours removed.
7. Each box will be opened to add absorbent
8. Absorbent @ $322 per metal box

Prepared by: Hugh A. Clinger
Date Prepared: 04/30/2001

Control Team Review: _____ Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW ASBESTOS DISPOSITION

PBS: 11 Duration:
WBS: 1.1.M Fiscal Year:
Control Account: MMMD

ProjectLow Level Waste Project - Asbestos-MMMD1
CampaignASB 1002 - LLW Asbestos

Charge Number: MMMD1
CAM: Dave Wood

Quantity Basis (containers and volume): approximately 53, 710 cu. Ft. in 364 containers

Containers for Off-site Shipment: 61
Total Containers minus ROBs: 364

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MBLWRT/PIPFTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	QA (QACENG) Req'd	QA Mhrs
1. Campaign Planning		15		122	0.02	3	0.02	3	0	0	0	0	0	0	0.03	4	0.01	1	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Asbestos Sorting				12,398																		
ISOs	30	92	1,918	6974	5	4600	1	920	0	0	0	0	0	0	0.7	644	0.25	230	0	0	0	0
Metal Boxes	108	44	871	3181	5	2200	1	440	0	0	0	0	0	0	0.35	154	0.25	110	0	0	0	0
Drums	226	36	605	2243	5	1800	0	0	0	0	0	0	0	0	0.35	126	0.25	90	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																						
ROBs	0	0	0	0	1	0	1	0	0.25	0	2	0	0	0	0.28	0	0.25	0	0	0	0	0
5. Container Movements				0																		
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.28	0	0.25	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.28	0	0.25	0	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.28	0	0.25	0	0	0	0	0
6. Loading and Shipping				12,371																		
ISOs	61	244	3,440	12371	1	2440	2	4880	0.2	488	0	0	0.05	122	0.7	1708	0.25	610	0	0	0.000	0
Metal Boxes	0	0	0	0	1	0	2	0	0.3	0	2	0	0.05	0	0.7	0	0.5	0	2	0	0	0
Drums	0	0	0	0	1	0	2	0	0.3	0	2	0	0.05	0	0.7	0	0.5	0	2	0	0	0
Total Manhours by Skill						*11,043*		*6,243*		*488*		*0*		*122*		*2,636*		*1,041*		*0*		*0*

Activity	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning	0	0	0.01	1	0.01	1	0.01	1	0.02	3	0.5	74	0.05	7	0.05	7	0	0	0.1	15	0	0
2. SSR	0	0	0	0	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
3. Asbestos Sorting																						
ISOs	0	0	0.12	110	0.05	46	0.01	9	0	0	0.2	184	0.2	184	0.05	46	0	0	0	0	0	0
Metal Boxes	0	0	0.12	53	0.05	22	0.01	4	0	0	0.2	88	0.2	88	0.05	22	0	0	0	0	0	0
Drums	0	0	0.12	43	0.05	18	0.01	4	0	0	0.2	72	0.2	72	0.05	18	0	0	0	0	0	0
4. ROB Movements																						
ROBs	0	0	0.06	0	0.01	0	0.01	0	0	0	0.2	0	0.2	0	0.05	0	0	0	0	0	0	0
5. Container Movements																						
ISOs	0	0	0	0	0.01	0	0.01	0	0	0	0.2	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.01	0	0.01	0	0	0	0.2	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.01	0	0.01	0	0	0	0.2	0	0	0	0.05	0	0	0	0	0	0	0
6. Loading and Shipping																						
ISOs	0	0	0.3	732	0.01	24	0.01	24	0	0	0.30	732	0.2	488	0.05	122	0	0	0	0	0	0
Metal Boxes	0	0	0.3	0	0.01	0	0.01	0	0	0	0.2	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.3	0	0.01	0	0.01	0	0	0	0.2	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		*0*		*940*		*112*		*43*		*3*		*1,150*		*839*		*215*		*0*		*15*		*0*

* Both skills are used fairly equally. Rate used is for a Millwright.

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	31	$2,000	$62,000
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	3394	$9.68	$32,856
Normal Protective Clothing	change	3440	$4.03	$13,863
3 Vehicles for Moves	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
1 Vehicle for ROB Moves	day	0	$55	$0
Absorbent	each	27	$322	$8,694
Other Materials	each	61	$240	$14,640
NTS Truck Freight	shipment	61	$4,600	$280,600
Shoring	shipment	61	$100	$6,100
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	82,350	$8.69	$715,622

WORKSHEET SUMMARY		
Total Manhours	24,890	
Total Labor		**$790,239**
Total Materials		**$418,753**
Total Burial		**$715,622**
Total Cost		**$1,924,613**
Total Cost minus burial		**$1,208,992**

All costs stated in FY01 Dollars

Comments and Asumptions:
1. Minor repackaging required.
2. Metal boxes will be overpacked into ISO's (8 metal boxes per ISO)
3. 4 metal boxes and 36 drums per ISO
4. Quantity information provided by project (LLW Campaign status document).
5. Absorbent at $322 per metal box

Prepared by: Hugh A. Clinger
Date Prepared: 04/30/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW ASBESTOS DISPOSITION

PBS: 11 Duration:
WBS: 1.1.M Fiscal Year:
Control Account: MMMD

Project: Low Level Waste Project - Asbestos-MMMD1
Campaign: ASB 1003 - Misc. D&D

Quantity Basis (containers and volume): approximately 5,500 cu. Ft. in 48 containers

Charge Number: MMMD1
CAM: Dave Wood

Containers for Off site Shipment: 6 1 day = 10 mhrs Make Entries in Yellow Shaded Areas Only
Total Containers minus ROBs: 48

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MILWRT/PIPFTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	QA (QACENG) Req'd	QA Mhrs	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning		11		88	0.02	2	0.02	2	0	0	0	0	0	0	0.03	3	0.01	1	0	0	0	0	0	0	0.01	1	0.01	1	0.01	1	0.02	2	0.5	53	0.05	5	0.05	5	0	0	0.1	11	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
3. Asbestos Sorting				1,072																																								
ISOs	3	8	172	622	5	400	1	80	0.2	16	0	0	0	0	0.7	56	0.25	20	0	0	0	0	0	0	0.12	10	0.05	4	0.01	1	0	0	0.2	16	0.2	16	0.05	4	0	0	0	0	0	0
Metal Boxes	11	4.5	89	325	5	225	1	45	0	0	0	0	0	0	0.35	16	0.25	11	0	0	0	0	0	0	0.12	5	0.05	2	0.01	0	0	0	0.2	9	0.2	9	0.05	2	0	0	0	0	0	0
Drums	34	2	34	125	5	100	0	0	0	0	0	0	0	0	0.35	7	0.25	5	0	0	0	0	0	0	0.12	2	0.05	1	0.01	0	0	0	0.2	4	0.2	4	0.05	1	0	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																																												
ROBs	0	0	0	0	1	0	1	0	0.25	0	2	0	0	0	0.28	0	0.25	0	0	0	0	0	0	0	0.06	0	0.01	0	0.01	0	0	0	0.2	0	0.2	0	0.05	0	0	0	0	0	0	0
5. Container Movements				0																																								
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.28	0	0.25	0	0	0	0	0	0	0	0	0	0.01	0	0.01	0	0	0	0.2	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.28	0	0.25	0	0	0	0	0	0	0	0	0	0.01	0	0.01	0	0	0	0.2	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.28	0	0.25	0	0	0	0	0	0	0	0	0	0.01	0	0.01	0	0	0	0.2	0	0	0	0.05	0	0	0	0	0	0	0
6. Loading and Shipping				517																																								
ISOs	6	16	199	517	1	160	2	2	0.2	32	0	0	0.05	8	0.7	112	0.25	40	0	0	0	0	0	0	0.3	48	0.01	2	0.01	2	0	0	0.5	72	0.2	32	0.05	8	0	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	2	0	0.3	0	2	0	0.05	0	0.7	0	0.5	0	0	0	0	0	0	0	0.3	0	0.01	0	0.01	0	0	0	0.2	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	1	0	2	0	0.3	0	2	0	0.05	0	0.7	0	0.5	0	0	0	0	0	0	0	0.3	0	0.01	0	0.01	0	0	0	0.2	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						*887*		*129*		*48*		*0*		*8*		*194*		*77*		*0*		*0*		*0*		*66*		*10*		*4*		*2*		*154*		*66*		*21*		*0*		*11*		*0*

* Both skills are used fairly equally. Rate used is for a Millwright.

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	3	$2,000	$6,000
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	294	$9.68	$2,849
Normal Protective Clothing	change	199	$4.03	$803
3 Vehicles for Moves	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
1 Vehicle for ROB Moves	day	0	$55	$0
Absorbent	each	11	$322	$3,542
Other Materials	each	6	$240	$1,440
NTS Truck Freight	shipment	6	$4,600	$27,600
Shoring	shipment	6	$100	$600
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	6,750	$8.69	$58,658

WORKSHEET SUMMARY	
Total Manhours 1,678	
Total Labor	$55,397
Total Materials	$42,834
Total Burial	$58,658
Total Cost	$156,888
Total Cost minus burial	$98,230

All costs stated in FY01 Dollars

Comments and Asumptions:
1. Minor repackaging required.
2. Metal boxes will be overpacked into ISO's (8 metal boxes per ISO)
3. 4 metal boxes and 36 drums per ISO
4. Quantity information provided by project (LLW Campaign status document).
5. Absorbent @ $322 per metal box

Prepared by: Hugh A. Clinger
Date Prepared: 04/30/2001

Control Team Review: Project Review:

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW ASBESTOS DISPOSITION

PBS: 11 | Duration:
WBS: 1.1.M | Fiscal Year:
Control Account: MMMD

Project: Low Level Waste Project - Asbestos-MMMD1
Campaign: ASB 1004 - Safe Shutdown

Charge Number: MMMD1
CAM: Dave Wood

Quantity Basis (containers and volume): approximately 2,030 cu.ft. in 25 containers

Containers for Off site Shipment: 2 | 1 day = 10 mhrs | Make Entries in Yellow Shaded Areas Only
Total Containers minus ROBs: 25

Activity	Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MILWRT/PIPFTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	QA (QACENG) Req'd	QA Mhrs
1. Campaign Planning	10		85	0.02	2	0.02	2	0	0	0	0	0	0	0.03	3	0.01	1	0	0	0	0
2. SSR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Asbestos Sorting			441																		
ISOs	1	2.5	60	215	5	125	2	50	0	0	0	0	0	0	0.7	18	0.25	6	0	0	0
Metal Boxes	5	2	46	165	5	100	2	40	0	0	0	0	0	0	0.35	7	0.25	5	0	0	0
Drums	19	1	17	62	5	50	0	0	0	0	0	0	0	0	0.35	4	0.25	3	0	0	0
4. ROB Movements (assumes round trip for ROBs)																					
ROBs	0	0	0	0	1	0	1	0	0.25	0	2	0	0	0	0.28	0	0.25	0	0	0	0
5. Container Movements			0																		
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.28	0	0.25	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.28	0	0.25	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.28	0	0.25	0	0	0	0
6. Loading and Shipping			263																		
ISOs	2	5	62	263	1	50	2	100	0.2	10	0	0	0.05	3	0.7	35	0.25	13	0	0	0
Metal Boxes	0	0	0	0	1	0	2	0	0.3	0	2	0	0.05	0	0.7	0	0.5	0	0	0	0
Drums	0	0	0	0	1	0	2	0	0.3	0	2	0	0.05	0	0.7	0	0.5	0	0	0	0
Total Manhours by Skill					327		192		10		0		3		66		27		0		0

Activity	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning	0	0	0.01	1	0.01	1	0.01	1	0.02	2	0.5	52	0.05	5	0.05	5	0	0	0.1	10	0	0
2. SSR	0	0	0	0	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
3. Asbestos Sorting																						
ISOs	0	0	0.12	3	0.05	1	0.01	0	0	0	0.2	5	0.2	5	0.05	1	0	0	0	0	0	0
Metal Boxes	0	0	0.12	2	0.05	1	0.01	0	0	0	0.2	4	0.2	4	0.05	1	0	0	0	0	0	0
Drums	0	0	0.12	1	0.05	1	0.01	0	0	0	0.2	2	0.2	2	0.05	1	0	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																						
ROBs	0	0	0.06	0	0.01	0	0.01	0	0	0	0.2	0	0.2	0	0.05	0	0	0	0	0	0	0
5. Container Movements																						
ISOs	0	0	0	0	0.01	0	0.01	0	0	0	0.2	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.01	0	0.01	0	0	0	0.2	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.01	0	0.01	0	0	0	0.2	0	0	0	0.05	0	0	0	0	0	0	0
6. Loading and Shipping																						
ISOs	0	0	0.3	15	0.01	1	0.01	1	0	0	0.5	24	0.2	10	0.05	3	0	0	0	0	0	0
Metal Boxes	0	0	0.3	0	0.01	0	0.01	0	0	0	0.2	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.3	0	0.01	0	0.01	0	0	0	0.2	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		0		23		4		2		2		87		26		10		0		10		0

* Both skills are used fairly equally. Rate used is for a Millwright.

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	1	$2,000	$2,000
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	122	$9.68	$1,181
Normal Protective Clothing	change	62	$4.03	$251
3 Vehicles for Moves	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
1 Vehicle for ROB Moves	day	0	$55	$0
Absorbent	each	5	$322	$1,610
Other Materials	each	2	$240	$480
NTS Truck Freight	shipment	2	$4,600	$9,200
Shoring	shipment	2	$100	$200
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	2,700	$8.69	$23,463

WORKSHEET SUMMARY		
Total Manhours	789	
Total Labor		**$26,327**
Total Materials		**$14,922**
Total Burial		**$23,463**
Total Cost		**$64,712**
Total Cost minus burial		**$41,249**

All costs stated in FY01 Dollars

Comments and Asumptions:
1. Minor repackaging required.
2. 72drums maximum per ISO
3. Quantity information provided by project (LLW Campaign status document).
4. Absorbent @ $322 per metal box

Prepared by: Hugh A. Clinger
Date Prepared: 04/30/2001

Control Team Review: _____ Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LIQUID MIXED WASTES

PBS: 11 Duration:
WBS: 1.1.M Fiscal Year:
Control Account: MMMD

Project: Low Level Waste

Campaign: Decanting of asbestos (liquids to AWWT)

Quantity Basis (containers and volume): approximately 320 drums with 17600 gallons of water

Charge Number: MMMD1
CAM: Dave Wood

1 day = 10 mhrs Make Entries In Yellow Shaded Areas Only

Total Containers minus ROBs: 0

Activity		Days	PPE Count	Total Mhrs	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MLWRT/PIPTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	QA (QACENG) Req'd	QA Mhrs
1. Campaign Planning		10		53	0.02	2	0.02	2	0	0	0	0	0	0	0.02	2	0.02	2	0	0	0.00	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection Assumed Number of Samples/Visuals: 0		0	0	0	3	0	1	0	0	0	0	0	0	0	0.1	0	1	0	1	0	0.1	0
4. Characterization		2	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. Liquid Bulking Drums	0	0	0	0	4	0	1	0	0	0	0	0	0.2	0	0.5	0	1	0	0	0	0.1	0
6. TSCA Shipping Tanker	0	0	0	0	3	0	1	0	0	0	0	0	0.2	0	0.5	0	2.5	0	0	0	0.25	0
7. Container Movements				2,562																		
ISOs	0	0	0	0	2	0	1	0	0.1	0	2	0	0	0	0.25	0	0.5	0	0	0	0	0
Metal Boxes	0	0	0	0	2	0	1	0	0.1	0	2	0	0	0	0.25	0	0.5	0	0	0	0	0
Skids of four drums	80	42.00	725	2562	2	840	1	420	2	840	0	0	0	0	0.25	105	0.5	210	0	0	0	0
Total Manhours by Skill						842		422		840	0		0		107		212		0		0	

Activity	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning	0	0	0.02	2	0.02	2	0.02	2	0.02	2	0.25	25	0.05	5	0.05	5	0	0	0.02	2	0.0	0
2. SSR	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0.0	0
3. Sampling/Visual Inspection Assumed Number of Samples/Visuals: 0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0.0	0
4. Characterization	0	0	0	0	0	0	0	0	0	0	0.25	5	0	0	0	0	0	0	0	0	0.0	0
5. Liquid Bulking Drums	0	0	1	0	0.05	0	0.05	0	0	0	2	0	0.2	0	0.05	0	0	0	0	0	0.0	0
6. TSCA Shipping Tanker	0	0	0.5	0	0.05	0	0.05	0	0	0	2	0	0.2	0	0	0	0	0	0	0	0	0
7. Container Movements																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0	0	0.2	0	0.05	0	0	0	0	0	0	0
Skids of four drums	0	0	0	0	0.05	21	0.05	21	0	0	0	0	0.2	84	0.05	21	0	0	0	0	0	0
Total Manhours by Skill		0		2		23		23		2		30		89		26		0		2		0

MATERIALS	Unit	Quantity	Rate	Total
Full Anti-Cs	change	0	$9.68	$0
Normal Protective Clothing	change	725	$4.03	$2,920
3 Vehicles- Moves/Repack	day	0	$165	$0
Labeling/Misc.Materials	each	0	$240	$0
Freight to Oak Ridge	shipment	0	$2,000	$0

SUBCONTRACTS	Unit	Quantity	Rate	Total
Commercial Treatment	gallon	0	$10	$0
Offsite Lab Analysis	sample	0	$1,675	$0
Required TSCA Analysis	batch	0	$47,000	$0

Worksheet Summary

Total Manhours	2,620	
Total Labor		**$80,752**
Total Materials		**$2,920**
Total Subcontracts		**$0**
Total Cost		**$83,672**
Total Cost minus burial		**$83,672**

All costs are stated in FY01 Dollars.

Comments and Assumptions:

1. Assumes the only requirement for LLW liquids is movement to AWWT.
2. Estimate of 6.4 gallons of water per container
3. 4211 gallons total for all campaigns
4. Tank capacity = 200 gallons

Prepared by: Hugh A. Clinger
Date Prepared: 04/30/2001

Control Team Review: _____

Project Review: _____

Comments

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW ASBESTOS DISPOSITION

PBS 11 Duration:
WBS 1.1.M Fiscal Year:
Control Account MMMD

Project: Low Level Waste
Campaign: Prohibited Items

Quantity Basis (containers and volume): approximately 20 containers

Charge Number: MMMD1
CAM: Dave Wood

Containers for Off-site Shipment: 0 1 day = 10 mhrs **Make Entries In Yellow Shaded Areas Only**
Total Containers minus ROBs: 20

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MILWRT/PIPFTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	QA (QACENG) Req'd	QA Mhrs
1. Campaign Planning		10		163	0.02	2	0.02	2	0	0	0	0	0	0	0.25	26	0.02	2	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Asbestos Sorting				0																		
ISOs	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0.5	0	1	0	0	0	0	0
Metal Boxes	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0.5	0	1	0	0	0	0	0
Drums	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0.5	0	1	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																						
ROBs	0	0	0	0	1	0	1	0	0.25	0	2	0	0	0	0.2	0	1	0	0	0	0	0
5. Container Movements				0																		
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
6. Loading and Shipping				0																		
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	0.5	0	1	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0.3	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0.3	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0
Total Manhours by Skill						2		2		0		0		0		26		2		0		0

Activity	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning	0	0	0.02	2	0.02	2	0.02	2	0.02	2	1	103	0.05	5	0.05	5	0	0	0.1	10	0	0
2. SSR	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
3. Asbestos Sorting																						
ISOs	0	0	0.2	0	0.25	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0.2	0	0.25	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.2	0	0.25	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																						
ROBs	0	0	0.1	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
5. Container Movements																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
6. Loading and Shipping																						
ISOs	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		0		2		3		2		2		103		5		5		0		10		0

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	0	$9.68	$0
Normal Protective Clothing	change	0	$4.03	$0
3 Vehicles for Moves	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
1 Vehicle for ROB Moves	day	0	$55	$0
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	0	$4,600	$0
Shoring	shipment	0	$100	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$6.57	$0

* Both skills are used fairly equally. Rate used is for a Millwright.

WORKSHEET SUMMARY

Total Manhours	163
Total Labor	$7,694
Total Materials	$0
Total Burial	$0
Total Cost	$7,694
Total Cost minus burial	$7,694

All costs stated in FY01 Dollars

Comments and Asumptions:
1. .7% estimate of the total containers in the four asbestos campaigns
2. Information supplied by project engineer
3. 8 metal boxes per shipment
4. .05% of 750 cu.ft. MW
   .75% of 750 cu.ft. Liq.
   .05% of 750 cu.ft. Lead
   .15% of 750 cu.ft. Aerosol

Prepared by: Hugh A. Clinger
Date Prepared: 04/30/2001

Control Team Review: _____ Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW ASBESTOS DISPOSITION

PBS: 11 Duration:
WBS: 1.1.M Fiscal Year:
Control Account: MMMD

Project: Low Level Waste
Campaign: Asbestos Brick

Charge Number: MMMD1
CAM: Dave Wood

Quantity Basis (containers and volume): approximately 1 ISO containing 200 cu.ft. of wrapped asbestos brick

Containers for Off-site Shipment: 0 1 day = 10 mhrs Make Entries in Yellow Shaded Areas Only
Total Containers minus ROBs: 1

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MLWRT/PPFTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	QA (QACENG) Req'd	QA Mhrs
1. Campaign Planning		10		61	0.02	2	0.00	0	0.02	2	0	0	0	0	0.02	2	0.02	2	0.00	0	0.00	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Asbestos Sorting				0																		
ISOs	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0.5	0	1	0	0	0	0	0
Metal Boxes	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0.5	0	1	0	0	0	0	0
Drums	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0.5	0	1	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																						
ROBs	0	0	0	0	1	0	1	0	0.25	0	2	0	0	0	0.2	0	1	0	0	0	0	0
5. Container Movements				52																		
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Metal Boxes	3	1.5	14	52	1	15	0.5	8	0.5	8	0	0	0	0	0.2	3	1	15	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
6. Loading and Shipping				282																		
ISOs	1	4	92	282	3	120	0	0	2	80	0	0	0.05	2	0.5	20	0.5	20	0	0	0.00	0
Metal Boxes	0	0	0	0	3	0	2	0	0.3	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0.3	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0
Total Manhours by Skill						*137*		*8*		*90*		*0*		*2*		*25*		*37*		*0*		*0*

Activity		WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning		0	0	0.02	2	0.02	2	0.02	2	0.02	2	0.25	25	0.05	5	0.05	5	0	0	0.1	10	0.00	0
2. SSR	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
3. Asbestos Sorting																							
ISOs	0	0	0	0.2	0	0.25	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0.2	0	0.25	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0.2	0	0.25	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																							
ROBs	0	0	0	0.1	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
5. Container Movements																							
ISOs	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	3	0	0	0	0	0.05	1	0.05	1	0	0	0.1	2	0	0	0.05	1	0	0	0	0	0	0
Drums	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
6. Loading and Shipping																							
ISOs	1	0	0	0.5	20	0.05	2	0.05	2	0	0	0.15	6	0.2	8	0.05	2	0	0	0	0	0	0
Metal Boxes	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill			*0*		*22*		*5*		*5*		*2*		*33*		*13*		*8*		*0*		*10*		*0*

* Both skills are used fairly equally. Rate used is for a Millwright.

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	1	$2,000	$2,000
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	0	$9.68	$0
Normal Protective Clothing	change	106	$4.03	$429
3 Vehicles for Moves	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
1 Vehicle for ROB Moves	day	0	$55	$0
Absorbent	each	0	$120	$0
Other Materials	each	16	$240	$3,840
NTS Truck Freight	shipment	1	$4,600	$4,600
Shoring	shipment	1	$100	$100
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	1,350	$8.69	$11,732

WORKSHEET SUMMARY

Total Manhours	395	
Total Labor		$13,400
Total Materials		$10,969
Total Burial		$11,732
Total Cost		$36,101
Total Cost minus burial		$24,369

All costs stated in FY01 Dollars

Comments and Asumptions:
1. Assume asbestos brick will be loaded on pallets and placed in 1 ISO
2. Assumes one crew will take one week to load
3. Reduced support due to duration of task
4. Assume ISO will be taken to woodpile and filled with additional asbestos waste

Prepared by: Hugh A. Clinger
Date Prepared: 04/30/2001

Control Team Review: Project Review:

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW ASBESTOS DISPOSITION

PBS: 11 Duration:
WBS: 1.1.M Fiscal Year:
Control Account: MMMD

Project: Low Level Waste
Campaign: IIMS ASB

Quantity Basis (containers and volume): APPROXIMATELY 51 S/Ls

Charge Number: MMMD1
CAM: Dave Wood

Containers for Off-site Shipment: 0 1 day = 10 mhrs **Make Entries in Yellow Shaded Areas Only**
Total Containers minus ROBs: 51

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MLWRT/APFTR) Req'd	Maintenance (MLWRT/APFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	QA (QACENG) Req'd	QA (QACENG) Mhrs	WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning		11		81	0.02	2	0.02	2	0	0	0	0	0	0	0.02	2	0.02	2	0	0	0	0	0	0	0.02	2	0.02	2	0.02	2	0.02	2	0.25	27	0.05	5	0.05	5	0	0	0.25	27	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
3. Asbestos Sorting				0																																								
ISOs	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0.5	0	1	0	0	0	0	0	0	0	0.2	0	0.25	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0.5	0	1	0	0	0	0	0	0	0	0.2	0	0.25	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0.5	0	1	0	0	0	0	0	0	0	0.2	0	0.25	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																																												
ROBs	0	0	0	0	1	0	1	0	0.25	0	2	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0.1	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
5. Container Movements				301																																								
ISOs	51	10.2	83	301	1	102	0.5	51	0.5	51	0	0	0	0	0.2	20	0.5	51	0	0	0	0	0	0	0	0	0.05	5	0.05	5	0	0	0.1	10	0	0	0.05	5	0	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
6. Loading and Shipping				0																																								
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	0.5	0	1	0	0	0	0	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0.3	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0.3	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						*104*		*53*		*51*		*0*		*0*		*23*		*53*		*0*		*0*		*0*		*2*		*7*		*7*		*2*		*37*		*5*		*10*		*0*		*27*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	0	$9.68	$0
Normal Protective Clothing	change	83	$4.03	$333
3 Vehicles for Moves	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
1 Vehicle for ROB Moves	day	0	$55	$0
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	0	$4,600	$0
Shoring	shipment	0	$100	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$10.80	$0

* Both skills are used fairly equally. Rate used is for a Millwright.

WORKSHEET SUMMARY		
Total Manhours	382	
Total Labor		**$14,210**
Total Materials		**$333**
Total Burial		**$0**
Total Cost		**$14,543**
Total Cost minus burial		**$14,543**

All costs stated in FY01 Dollars

Comments and Asumptions:
1. Move 5 S/Ls per day.

Prepared by: Hugh A. Clinger
Date Prepared: 05/24/2001

Control Team Review: _____ Project Review: _____

SECTION 4

5.0 RISK PLAN

Risk/Opportunity Identification and Analysis Form

Project: Low Level Waste		PBS Number: 11			Total Baseline Dollars (Minimum Case):			$2,339,946		
Evaluator: P.Kellogg	Date: 03/27/2001	WBS Number: 1.1.M.D								
CAM: Buckley	Date:	Control Account Number: MMMD								
Project Task	Risk and/or Opportunity	Potential Impact	Internal Or External Driver	Impact Cost $ (Maximum Case)	Risk Impact Level	Risk Probability %	Risk Probability Level	Probable Cost $ (Likeliest Case)	Risk Critical Value	Risk Handling Strategy
Asbestos shipments to NTS	Traffic accident invloving asbestos container	Temporaty stop of shipping	Internal	$1,700,000.00	3	20	3	$340,000.00	4	Accept Risk
Asbestos shipments to NTS	OSDF rejects sealands	Repackaging required	Internal	$1,010,000.00	3	40	4	$404,000.00	5	Accept Risk
			Total:	$2,710,000.00			Total:	$744,000.00		
Asbestos shipments to NTS	NTS closure and WAC change	Processing, treatment, packaging and shipment to E-Care	External	$2,800,000.00	3	10	2	$280,000.00	3	
Asbestos shipments to NTS	Teamster Strike	Temporaty stop of shipping	External	$100,000.00	2	20	2	$20,000.00	2	
Asbestos shipments to NTS	Accept increase in shipping risk	Decreased shipping cost	Internal	($1,200,000.00)	3	20	3	($240,000.00)	4	

WBS DICTIONARY
CONTROL ACCOUNT/CHARGE NUMBER

U.S. DEPARTMENT OF ENERGY
WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION

1. PROJECT TITLE	2. DATE OF CONTRACT	
FEMP (DEFENSE)	12/01/2000	
3. IDENTIFICATION NUMBER		4. INDEX LINE NO.
DE-AC24-01OH20115		83
5. WBS ELEMENT CODE	6. WBS ELEMENT TITLE	
1.1.M.E	RESIDUE DISPOSITION	
7. APPROVED CP NO.		8. DATE OF CHANGES
ORIGINAL SCOPE PER CP# FY01-0115-0011-00		12/01/2000
9. SYSTEM DESIGN DESCRIPTION	10. BUDGET AND REPORTING NUMBER	
CERCLA/ACA	EW05H3110	

11. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Materials
Subcontracts
ODC's

b. TECHNICAL CONTENT:

This element provides for the planning, administration/management, warehousing, surveillance, packaging, preparation, consolidation, and transfer/shipment of low level waste residue (LLWR) resulting from historical operations and early clean-up of the FEMP. Residues are containerized uranium bearing materials that were created during refining operations at the FEMP. This scope includes disposition of these wastes at the Nevada Test Site or Envirocare of Utah. Waste containers destined for Envirocare will either be dumped at Soil Pile 7 (or equivalent). Approximately 700 containers of unknown origin waste are also included. Process knowledge and visual inspections will be conducted to determine the disposition path for these containers. All residues will be managed and dispositioned in a manner that is consistent with the requirements of the FEMP S/RID and DOE Order 435.1. This element includes only 8,721 containers (330,942 cft) inventoried as of December 1, 2000.

c. SCOPE OF WORK:

The Residue Disposition element is organized into two work packages, Residues to NTS and Residues to Envirocare (Ecare). These tasks provide for the planning, characterization, processing, and repackaging for campaigns of LLW residues planned for shipment to the Nevada Test Site (NTS) or Ecare via WPRAP. Residues consist of containerized uranium bearing materials that were created during refining operations at the FEMP. Materials are located in the former process area of the FEMP and total approximately 331,000 cft. The scope includes waste that was packaged in containers (e.g. S/L's, metal boxes, drums, etc.) prior to

U.S. DEPARTMENT OF ENERGY
WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION

1. PROJECT TITLE	2. DATE OF CONTRACT
FEMP (DEFENSE)	12/01/2000

3. IDENTIFICATION NUMBER	4. INDEX LINE NO.
DE-AC24-01OH20115	83

5. WBS ELEMENT CODE	6. WBS ELEMENT TITLE
1.1.M.E	RESIDUE DISPOSITION

7. APPROVED CP NO.	8. DATE OF CHANGES
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/01/2000

9. SYSTEM DESIGN DESCRIPTION	10. BUDGET AND REPORTING NUMBER
CERCLA/ACA	EW05H3110

11. ELEMENT TASK DESCRIPTION

12/01/00. This work scope also provides for the processing of all prohibited items and/or wastes requiring treatment from both source streams to achieve full disposition. Completion of this work scope is achieved either through shipment and burial in an off-site location (e.g., NTS), or the transfer of waste to the WPRAP Project via Soil Pile 7 (or equivalent). Prohibited items and/or rejected waste containers will be managed through the appropriate disposition path.

The Residues to NTS work package (MMME1) is established to process approximately 5,228 containers (S/L's, metal boxes, drums, etc.) which contain an estimated 176,755 cft of containerized legacy low-level waste residues for shipment to the Nevada Test Site. All residues will be managed and dispositioned in a manner which is consistent with the requirements of DOE Order 435.1, as specified in the FEMP S/RIDs and/or the Operable Unit 3 Record of Decision.

The Residues to Ecare work package (MMME2) is established to process approximately 3,493 containers (S/L's, ROB, MB, & drums) which contain an estimated 154,187 cft of low level waste residues (e.g. sumpcake, ion exchange resin, sludges) to Soil Pile 7 or equivalent. The material will then be transferred to the WPRAP project for dispostion to Envirocare, an offsite commercial disposal facility, in Utah. All residues will be managed and dispositioned in a manner which is consistent with the requirements of DOE Order 435.1, as specified in the FEMP S/RIDs and/or the Operable Unit 3 Record of Decision.

* Note: An alternate destination for the material placed on SP-7 is the NTS by using the residues to blend down enriched nuclear materials for off site shipment and disposal. The collection of residue for this application would not impact this project, since it would be removed from SP-7 after placement. Such removal is not part of this project.

WORK SCOPE DEFINITION
(Control Account)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 1

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.M.E	RESIDUE DISPOSITION

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	RODNEY BELL - EXT. 4229	JIM BUCKLEY - EXT. 3232

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3110	WASTE MANAGEMENT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/2000 - 10/2004

12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ONE LINE)
MMME	RESIDUE DISPOSITION

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Material
Subcontracts
ODCs

b. TECHNICAL CONTENT:

This control account provides for the planning, administration/management, warehousing, surveillance, packaging, preparation, consolidation, and transfer/shipment of low level waste residue (LLWR) resulting from historical operations and early clean-up of the FEMP. Residues are containerized uranium bearing materials that were created during refining operations at the FEMP. This scope includes disposition of these wastes at the Nevada Test Site or Envirocare of Utah. Waste containers destined for Envirocare will either be dumped at Soil Pile 7 (or equivalent). Approximately 700 containers of unknown origin waste are also included. Process knowledge and visual inspections will be conducted to determine the disposition path for these containers. All residues will be managed and dispositioned in a manner that is consistent with the requirements of the FEMP S/RID and DOE Order 435.1. This work package includes only 8,721 containers (330,942 cft) inventoried as of December 1, 2000.

c. SCOPE OF WORK:

The Residue Disposition control account is organized into two work packages, Residues to NTS and Residues to Envirocare (Ecare). These tasks provide for the planning, characterization, processing, and repackaging for campaigns of LLW residues planned for shipment to the Nevada Test Site (NTS) or Ecare via WPRAP. Residues consist of containerized uranium bearing materials that were created

Project Manager	Control Account Manager	Control Team Manager

WORK SCOPE DEFINITION
(Control Account)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 2

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.M.E	RESIDUE DISPOSITION	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	RODNEY BELL - EXT. 4229	JIM BUCKLEY - EXT. 3232
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3110	WASTE MANAGEMENT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00		12/2000 - 10/2004
12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ONE LINE)	
MMME	RESIDUE DISPOSITION	

14. ELEMENT TASK DESCRIPTION

during refining operations at the FEMP. Materials are located in the former process area of the FEMP and total approximately 331,000 cft. The scope includes waste that was packaged in containers (e.g. S/L's, metal boxes, drums, etc.) prior to 12/01/00. This work scope also provides for the processing of all prohibited items and/or wastes requiring treatment from both source streams to achieve full disposition. Completion of this work scope is achieved either through shipment and burial in an off-site location (e.g., NTS), or the transfer of waste to the WPRAP Project via Soil Pile 7 (or equivalent). Prohibited items and/or rejected waste containers will be managed through the appropriate disposition path.

The Residues to NTS work package (MMME1) is established to process approximately 5,228 containers (S/L's, metal boxes, drums, etc.) which contain an estimated 176,755 cft of containerized legacy low-level waste residues for shipment to the Nevada Test Site. All residues will be managed and dispositioned in a manner which is consistent with the requirements of DOE Order 435.1, as specified in the FEMP S/RIDs and/or the Operable Unit 3 Record of Decision.

The Residues to Ecare work package (MMME2) is established to process approximately 3,493 containers (S/L's, ROB, MB, & drums) which contain an estimated 154,187 cft of low level waste residues (e.g. sumpcake, ion exchange resin, sludges) to Soil Pile 7 or equivalent. The material will then be transferred to the WPRAP project for dispostion to Envirocare, an offsite commercial disposal facility, in Utah. All residues will be managed and dispositioned in a manner which is consistent with the requirements of DOE Order 435.1, as specified in the FEMP S/RIDs and/or the Operable Unit 3 Record of Decision.

* Note: An alternate destination for the material placed on SP-7 is the NTS by using the residues to blend down enriched nuclear materials for off site shipment and disposal. The collection of residue for this application would not impact this project, since it would be removed from SP-7 after placement. Such removal is not part of this project.

d. WORK SPECIFICALLY EXCLUDED:

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 1

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.M.E	RESIDUE DISPOSITION

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	RODNEY BELL - EXT. 4229	JIM BUCKLEY - EXT. 3232

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3110	WASTE MANAGEMENT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/2000 - 10/2004

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
MMME1	RESIDUES (NTS) DISPOSITION

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Material
Subcontracts
ODCs

b. TECHNICAL CONTENT:

This work package provides for the planning, characterization, processing, and repackaging for campaigns of LLW residues planned for shipment to the Nevada Test Site (NTS). The scope includes waste that was packaged in containers (e.g. metal boxes, drums, etc.) prior to 12/01/00. The amount of residue material in this task is approximately 5,228 containers (176,755 cft). This task also provides for the processing of all prohibited items and/or wastes requiring treatment, to achieve full disposition of the inventories baselined in this waste category.

c. SCOPE OF WORK:

This work package includes the following sub-tasks:
Planning, including procedure and task order maintenance, procurement of supplies and containers, and coordination of secondary waste/prohibited items handling and processing.
Characterization, including working with Waste Characterization as needed for managing and dispositioning secondary wastes and prohibited items.
Processing, including delivery of containers from controlled areas to Building 71, inspecting the waste for prohibited items, treatment of secondary wastes/prohibited items to meet disposition requirements, repackaging, and adding absorbent as required. Chemical treatment may be required in some cases.

Project Manager	Control Account Manager	Control Team Manager

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 2

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.M.E	RESIDUE DISPOSITION

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	RODNEY BELL - EXT. 4229	JIM BUCKLEY - EXT. 3232

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3110	WASTE MANAGEMENT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/2000 - 10/2004

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
MMME1	RESIDUES (NTS) DISPOSITION

14. ELEMENT TASK DESCRIPTION

Packaging, including loading residue containers into final shipping container (e.g. S/L).
Shipping, including shipment of S/L's to NTS and wastes requiring off-site treatment and/or off-site disposal.

d. WORK SPECIFICALLY EXCLUDED:

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 1

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.M.E	RESIDUE DISPOSITION

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	RODNEY BELL - EXT. 4229	JIM BUCKLEY - EXT. 3232

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3110	WASTE MANAGEMENT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/2000 - 06/2003

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
MMME2	RESIDUES (SOIL PILE 7) DISPOSITION

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Material
Subcontracts
ODCs

b. TECHNICAL CONTENT:

This work package provides for the planning, characterization, processing, and transfer of LLW residue to the WPRP project via Soil Pile 7 (or equivalent). The scope includes waste that was packaged in containers (e.g. metal boxes, drums, etc.) prior to 12/01/00. The amount of residue material in this task is approximately 3,493 containers (154,187 cft). This task also provides for the processing of all prohibited items and/or wastes requiring treatment, to achieve full disposition of the inventories baselined in this waste category.

c. SCOPE OF WORK:

This task includes the following sub-tasks:
Planning, including procedure and task order maintenance, procurement of supplies and containers, and coordination of secondary waste/prohibited items handling and processing.
Characterization, including working with the Waste Acceptance Organization for managing and dispositioning secondary wastes and prohibited items.
Processing, including delivery of containers from controlled areas to Soil Pile 7 (or equivalent) and dumping, inspecting the waste for prohibited items, treatment of secondary wastes/prohibited items to meet disposition requirements, repackaging, and adding absorbent as required. Chemical treatment may be required in some cases. Direct container transfer to WPRP is also included.

Project Manager	Control Account Manager	Control Team Manager

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 2

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.M.E	RESIDUE DISPOSITION	
5. PERFORMING DIV/DEPARTMENT CODE	**6. ORIGINATOR NAME/PHONE**	**7. WBS ELEMENT MANAGER**
51	RODNEY BELL - EXT. 4229	JIM BUCKLEY - EXT. 3232
8. BUDGET AND REPORTING NUMBER	**9. BUDGET TITLE**	
EW05H3110	WASTE MANAGEMENT	

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/2000 - 06/2003

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
MMME2	RESIDUES (SOIL PILE 7) DISPOSITION

14. ELEMENT TASK DESCRIPTION

d. WORK SPECIFICALLY EXCLUDED:

SECTION 5

1.0 NARRATIVE

1. PROJECT TITLE: WASTE MANAGEMENT	2. DATE: 09/10/01	3. PBS#: 11
4. WBS ELEMENT CODE: 1.1.M.E.	5. WBS ELEMENT TITLE: RESIDUE DISPOSITION	
6. CAM NAME/ PHONE: JIM BUCKLEY/ 3232	7. CAM SIGNATURE:	
8. ORIGINAL/ CHANGE SCOPE/ PER CP#:	9.CONTROL ACCOUNT: MMME	

SECTION 5: MMME – RESIDUE DISPOSITION

1.0 NARRATIVE

1.1 OVERVIEW

This work package provides for the planning, administration/management, warehousing, surveillance, packaging, preparation, consolidation, and transfer/shipment of low level waste residue (LLWR) resulting from historical operations and early clean-up of the FEMP. Residues are containerized uranium bearing materials that were created during refining operations at the FEMP. This scope includes disposition of these wastes at the Nevada Test Site or Envirocare of Utah. Waste containers destined for Envirocare will either be dumped at Soil Pile 7 (or equivalent). Approximately 700 containers of unknown origin waste are also included. Process knowledge and visual inspections will be conducted to determine the disposition path for these containers. All residues will be managed and dispositioned in a manner that is consistent with the requirements of the FEMP S/RID and DOE Order 435.1. This work package includes only 8,732 containers (337,790 ft^3) inventoried as of December 1, 2000.

1.2 ASSUMPTIONS/EXCLUSIONS

1.2.1 Assumptions

1.2.1.1 General

- Regulatory requirements remain unchanged during the baseline performance period.
- Prohibited articles and wastes that require treatment prior to disposition included in the work package can be effectively dispositioned through other processes included in the closure baseline, such as by utilizing existing planned RCRA waste treatment contracts.
- The maintenance work package will provide budget for replacements and repairs of general use equipment for this work package.
- Weather impacts on loading and shipping operations are typical for the FEMP.
- Necessary equipment is available to support operations.

- Material is non-RCRA. Any material subsequently identified to be RCRA would be transferred to the Waste Treatment & Waste Storage Project or a charge number provided for disposition.

- With the exception of approximately 700 containers of unknown origin containers, the majority of materials can be passed through the Waste Characterization process without requiring any additional physical sampling. Existing process knowledge, sampling analysis and visual inspections will fulfill the need for characterization information. Approximately 2% of the total number of containers will require additional sampling.

- Prohibited items will not exceed 2% of the total volume of waste verified.

- The approved absorbent on site for most waste will be 15% Radsorb and 85% hydrated lime. If another absorbent is used, any cost increase will not exceed 1%.

- Internal and external reporting requirements will not change.

1.2.1.2 NTS

- NTS remains viable and open for receiving this FEMP waste stream as planned throughout the FEMP Closure.

- NTS requirements will remain static without a change in existing requirements or new requirements that would preclude the burial of LLWR or increase the cost and/or timeframe of the project (e.g., NTS WAC, packaging, truck routing, etc.).

- Material shipped to NTS will meet and be certified compliant to the NTS WAC.

- Shipments to the NTS will not be adversely impacted by external entities.

- DOT requirements for shipment of these wastes are consistent with current standards throughout the FEMP closure.

- NTS will continue to accept waste materials with greater than 12% Uranium.

- Profiles will be processed and approved by DOE-NV in a timely manner to meet the schedule.

- Approximately 5% of the waste will not meet the NTS WAC and will be processed to an alternate disposal path.

- AWWT will be able to take the decanted liquids from the containers. Transfer of these liquids to AWWT will be done in a timely manner to meet the project schedule.

- Containers will be procured to DOT and NTS WAC requirements.

- Alternate equivalent off-site disposition can be substituted for NTS disposition, based on cost, schedule, and other project-specific criteria, if requirements can be met.

1.2.1.3 Envirocare

- Envirocare remains viable and open for the ultimate disposition of LLWR as planned throughout the FEMP Closure.

- Containers of soil-like material (e.g. AWWT Sumpcake, Plant 5 Sludge, Ion Exchange Resin, etc.) destined to be dispositioned to Envirocare via the WPRP contract will be dumped on a soil pile or other approved location under this work scope.

- Soil Pile 7 (or equivalent) will remain viable and open for the dumping of LLWR as planned throughout the FEMP Closure.

- Soil Pile 7 (or equivalent) requirements will remain static without a change in existing requirements or new requirements that would preclude the dumping of LLWR or increase the cost and/or timeframe of the project. (e.g. Equipment rental).

- Soil Pile 7 (or equivalent) will continue to accept waste materials with less than 12% Uranium.

- Blending and/or dust control will be used at Soil Pile 7 or another suitable location to allow flexibility in the type and amount of waste that can go to WPRP.

- Waste material deposited on Soil Pile 7 (or equivalent) will be removed in a timely manner to be processed to support the WGS schedule and EPA requirements.

- Disposition of material at Envirocare via Soil Pile 7 (or equivalent) will not be adversely impacted by external entities.

- This work scope will be considered complete when the waste has been dumped on Soil Pile 7 (or equivalent). Empty containers will be either reused to package trash, shear for Envirocare, or pressure washed and sheared for OSDF.

R1-F11-007

- ~~Approximately 5% of the waste will not meet the Envirocare/Soil Pile 7 (or equivalent) WAC and will be processed to an alternate disposal path.~~

1.2.2 Exclusions

- Burial fees for the NTS or EnviroCare of Utah.
- Functions provided from central organizations that are not budgeted by this project include: Waste Acceptance Organization, Waste Characterization, and NTS Compliance. Note: The project will budget for sampling activities.
- Waste generated and/or packaged after 12-01-00 is specifically excluded from the inventory and cost estimate. Funding for this waste will be provided by the project generating the waste.
- Material inventory defined in the attached SWIFTS reports constitute the entire inventory of this work package. Should additional material of similar type be identified at a later date for addition to this project, change proposals will be processed to authorize the work scope and budget.
- Transportation to and disposal costs of residues at Envirocare are covered by WPRP.
- Movement of the material from the soil pile to WPRP. This service is to be provided and funded by the Soil and Disposal Facility Project through completion of this package.
- This work scope does not manage or disposition any RCRA or mixed waste residues.

1.2.3 Government-Furnished Equipment/Services

- Nevada Test Site (NTS) Disposal Facility will be available to the FEMP and support the scheduled activities.
- Envirocare Disposal based on DOE or Corps of Engineers contracts
- Government furnished equipment will be provided as needed to support the project operations.
- Disposal funds and funds transfer systems (e.g. interoffice work orders, etc)

1.3 DRIVERS

Drivers include both events (or activities) that must occur as predecessor or contemporary to the project, as well as significant requirements that must be met in the execution of the project.

1.3.1 Events

- NTS continues to operate in a manner consistent with present methods and schedules.
- Waste Profile approval by NTS.
- EPA acceptance of materials for processing through Soil Pile 7 (or equivalent).

1.3.2 Requirements

In addition to applicable elements from the Closure Contract S/RID, the following additional requirements significantly affect the project:

- Operable Unit 3 requirements (decision and implementing documents)
- DOE/NV-325-Rev. 3, Nevada Test Site Waste Acceptance Criteria, dated December 2000.
- Envirocare of Utah contract-specific waste acceptance criteria.
- Soil Pile 7 (or equivalent) Safety Basis Documentation.
- WPRP contractor operational limits.

1.4 PROJECT PHYSICAL DESCRIPTION

This work package is organized in two tasks (charge numbers MMME1, MMME2) with additional supporting structure in the form of subtasks and activities.

1.4.1 Task #1 - MMME1 – Residues (NTS) Disposition

MMME1 provides for the planning, characterization, processing, and repackaging for campaigns of LLW residues planned for shipment to the Nevada Test Site (NTS) via truck carrier. The scope includes waste that was packaged in containers (e.g. metal boxes, drums, etc.) prior to 12/01/00. The amount of residue material in this task is approximately 5,476 containers (191,829 ft^3). This task also provides for the processing of all prohibited items and/or wastes requiring treatment, to achieve full disposition of the inventories baselined in this waste category.

This task includes the following sub-tasks:

1) Planning

Planning, including procedure and task order maintenance, procurement of supplies and containers, and coordination of secondary waste/prohibited items handling and processing.

2) Characterization

Characterization, including working with Waste Characterization as needed for managing and dispositioning secondary wastes and prohibited items.

3) Processing

Processing, including delivery of containers from controlled areas to Building 71, inspecting the waste for prohibited items, treatment of secondary wastes/prohibited items to meet disposition requirements, repackaging, and adding absorbent as required. Chemical treatment may be required in some cases.

4) Packaging

Packaging, including loading residue containers into final shipping container (e.g. S/L).

5) Shipping

Shipping including shipment of S/L's to NTS and wastes requiring off-site treatment and/or off-site disposal.

1.4.2 Task #2 - MMME2 – Residues (Envirocare) Disposition

MMME2 provides for the planning, characterization, processing, and transfer of LLW residue to the WPRP project via Soil Pile 7 (or equivalent). The scope includes waste that was packaged in containers (e.g. metal boxes, drums, etc.) prior to 12/01/00. The amount of residue material in this task is approximately 3,256 containers (145,961 ft^3). This task also provides for the processing of all prohibited items and/or wastes requiring treatment, to achieve full disposition of the inventories baselined in this waste category.

This task includes the following sub-tasks:

1) Planning

Planning, including procedure and task order maintenance, procurement of supplies and containers, and coordination of secondary waste/prohibited items handling and processing.

2) Characterization

Characterization, including working with the Waste Acceptance Organization for managing and dispositioning secondary wastes and prohibited items.

3) Processing

Processing, including delivery of containers from controlled areas to Soil Pile 7 (or equivalent) and dumping, inspecting the waste for prohibited items, treatment of secondary wastes/prohibited items to meet disposition requirements, repackaging, and adding absorbent as required. Chemical treatment may be required in some cases. Direct container transfer to WPRP is also included.

4) Packaging

Not Applicable.

5) Shipping

Not Applicable.

1.5 PROJECT PLAN/TECHNICAL SCOPE AND QUANTIFICATION

The scope of this task is to process approximately 8,700 containers (Metal boxes, drums, etc.) which contain an estimated 340,000 ft^3 of containerized legacy low-level waste residues. Residues are containerized uranium bearing materials that were created during refining operations at the FEMP. These residues will go through the following disposition methodology:

A. Can the waste be dumped directly onto Soil Pile 7 (or equivalent location).

B. If not, can the waste be controlled for dust and/or blended and dumped on Soil Pile 7 (or equivalent location).

C. If not, the waste will be shipped to NTS.

Estimated Disposal Volumes by Disposal Site

Disposal Site	Explanation	Volumes (CF)
Envirocare	LLW Residue dumped to Soil Pile 7 (or equivalent)	145,961
NTS	LLW Shipped to NTS	191,829
AWWT	Water decanted and processed at AWWT	644
Multiple	Prohibited Items processed through existing contracts	993
Total		**339,427**

Prohibited items (including asbestos materials, batteries, aerosol cans, lead-bearing materials, liquids, and solvent-soaked rags, etc.), to be removed during the repackaging of

this waste, will be processed to meet disposal requirements at the NTS or other off-site locations under this work package or may be recycled, when cost effective, to avoid disposal.

1.5.1 MMME1 - Residues (NTS) Disposition

1) Subtask #1 - Planning

1.1) Plan/Scope - Planning

- Identify inventory and waste forecast, develop task orders and procedures to guide the work activities, and incorporate requirements and safety goals.
- Perform project planning support activities, including training, safety analyses, technical review board, DOT determinations, management reviews, and readiness activities.
- Maintain performance/status tracking tools for the project activity and perform project oversight.
- Procurement of containers to support repackaging and/or overpacking of LLW residue disposition.

1.2) Quantification - Planning

In addition to quantitative information provided above, the planning activities for the disposition of LLW residues are based on providing a continuing operations support and troubleshooting interface for this procedure-based operation. The project will undergo some procedural shifts as the closure project matures. These shifts will occur to streamline disposition and enhance the cost effectiveness. This will require the development of revisions to the governing procedure and execution of the new approach. These changes will be accomplished using the planning team.

The disposition of the prohibited items will require the development of orders to permit transfer of those wastes that can be managed with other similar wastes. This includes the development of additional task orders for the collection, transfer, and management of these wastes.

2) Subtask #2 - Characterization

2.1) Plan/Scope - Characterization

- Develop a defensible waste characterization package utilizing process knowledge, sample analysis, visual inspection, and non-intrusive inspection techniques, e.g. Real Time Radiography (RTR). Subactivities include document preparation and profiling, as necessary.

- Determine the disposition path for each waste campaign and verify the primary wastes meet the NTS Waste Acceptance Criteria (WAC).

- Maintain field characterization capability to support fast-turnaround guidance on unusual materials.

- Perform characterization of secondary wastes (prohibited items/requiring processing and verify they meet intended off-site disposal facility WAC.

- Identify absorbent requirements.

- Perform real-time radiography as required.

2.2) Quantification - Characterization

In addition to quantitative information provided above, the characterization activities for the disposition of LLW residues are based on the assumption that, with the exception of approximately 700 containers of unknown origin waste, only 2% of the total # of containers will require sampling.

Approximately 700 containers of unknown origin waste exist at the Plant 1 Pad that could potentially contain waste. Because of the unknown material inside the containers they will be approached with extreme caution. Process knowledge investigations will be conducted to determine the source or the generators of waste in the unknown containers. These investigations will include SWIFTS, IMMS, and interviews with employees to determine the waste, origin or generator of the material. Visual investigations will be performed which will include opening the containers to view the contents. The will be photographed and documented to determine the type of waste. While open, the waste will be prepared in a manner that is safe to handle, move and store, until disposition. It is estimated that 25% of the unknowns will require confirmation sampling (175 containers @ $1,695 per container). Based on the visual documentation and/or sample analysis the containers will be fully characterized. It is estimated that 50% will be Hazardous Waste and LLRW

3) Subtask #3 - Processing

3.1) Plan/Scope - Processing

- Open and inspect containers to verify contents, container integrity, etc.
- Decant water and send to AWWT as required. The amount of liquid removed will be assumed as 1" of water per container that requires decanting.
- Remove prohibited items and send to appropriate disposition path.
- Add absorbent to containers for condensation control.
- Repackage and/or overpack containers as required.
- Transfer rejected waste to the appropriate disposition path.
- RTR for drums, boxes, etc. for verification purposes prior to packaging in a S/L for shipment.
- Old containers, if unloaded for repackaging purposes, will be either used for trash loading or pressure washed and sheared up for OSDF.

3.2) Quantification - Processing

In addition to quantitative information provided above, the processing activities for the disposition of LLW residues are based on the assumption that a given number of containers can be processed per day. This includes opening, inspecting, decanting, removing prohibited items, and adding absorbent. In some cases complete repackaging may be required. These assumptions are different for each campaign due to the type of material and the current package configuration. For this reason, the assumptions are stated on the individual cost estimates.

4) Subtask #4 - Packaging

4.1) Plan/Scope - Packaging

- Move stored residue from storage location(s) to processing area(s).
- Prepare facilities to perform processing, packaging, and storage operations.
- Procure supplies such as ISOs, drums, spare parts, and absorbents.
- Containerize/label prohibited items and/or items requiring other processing, amending with specified absorbent materials.

4.2) Quantification - Packaging

In addition to quantitative information provided above, the packaging activities for the disposition of LLW residues are based on packaging predominantly in S/L's. The number of shipping containers required is outlined on each individual cost estimate.

5) Subtask #5 - Shipping

5.1) Plan/Scope - Shipping

- Move/Load residue containers and ship to NTS by approved route.
- Move containerized wastes (trash for storage and prohibited items and other wastes for further processing) to storage.
- Staging, loading, and transportation of LLW residues from the FEMP to NTS.
- NTS, DOE, and DOT paperwork preparation to support the transportation to and disposal of LLW residues at NTS.

5.2) Quantification - Shipping

In addition to quantitative information provided above, the shipping activities for the disposition of LLW residues are based on shipping predominantly in S/L's. The number of shipping containers required is outlined on each individual cost estimate.

1.5.2 MMME2 - Residues (Envirocare) Disposition

1) Subtask #1 - Planning

1.1) Plan/Scope - Planning

- Identify inventory and waste forecast, develop task orders and procedures to guide the work activities, and incorporate requirements and safety goals.
- Perform project planning support activities, including training, safety analyses, technical review board, ISRC reviews, and readiness activities.
- Maintain performance/status tracking tools for the project activity and perform project oversight.

1.2) Quantification - Planning

In addition to quantitative information provided above, the planning activities for the disposition of LLW residues are based on providing a continuing operations support and

troubleshooting interface for this procedure-based operation. The project will undergo some procedural shifts as the closure project matures. These shifts will occur to streamline disposition and enhance the cost effectiveness. This will require the development of revisions to the governing procedure and execution of the new approach. These changes will be accomplished using the planning team.

The disposition of the prohibited items will require the development of task orders to permit transfer of those wastes that can be managed with other similar wastes. This includes the development of additional task orders for the collection, transfer, and management of these wastes.

2) Subtask #2 - Characterization

2.1) Plan/Scope - Characterization

- Develop a defensible waste characterization package utilizing process knowledge, sample analysis, visual inspection, and non-intrusive inspection techniques, e.g. Real Time Radiography (RTR). Subactivities include document preparation and profiling, as necessary.

- Determine the disposition path for each waste campaign and verify the primary wastes meet the Envirocare Waste Acceptance Criteria (WAC), WPRP Operational limits, and SP7 Safety Basis.

- Maintain field characterization capability to support fast-turnaround guidance on unusual materials.

- Perform characterization of secondary wastes (prohibited items/requiring processing and verify they meet intended off-site disposal facility WAC.

2.2) Quantification - Characterization

In addition to quantitative information provided above, the characterization activities for the disposition of LLW residues are based on the assumption that, with the exception of approximately 700 containers of unknown origin waste, only 2% of the total # of containers will require sampling. These containers are addressed in Section 1.5.1.

3) Subtask #3 - Processing

3.1) Plan/Scope - Processing

- Open and inspect residue containers for prohibited articles and/or rejected material.
- Transfer waste to the WPRP project via dumping at Soil Pile 7 (or equivalent).
- Sort and remove prohibited items.

- Determine if the containers are reusable or not. Pressure-wash any approved shipping containers that are reusable (e.g. 301).

- Non-approved shipping containers (e.g. Metal Boxes - Not 301) shall be reused for loading trash and shipping in S/L's. Any metal boxes that are not in good enough shape for packaging trash shall be inspected for residues and sheared up for OSDF.

- Residues in drums will be dumped on the Plant 4 pad (or equivalent) to sort out prohibited items. The waste will then be loaded into a Roll-Off Box, moved to SP7(or equivalent) and dumped.

- Empty drums will be crushed at the Plant 4 Pad (or equivalent) and loaded into a Roll-Off Box, moved to SP7 (or equivalent) and dumped.

- "Redress" the soil pile after dumping operations as needed.

3.2) Quantification - Processing

In addition to quantitative information provided above, the processing activities for the disposition of LLW residues are based on the assumption that a given number of containers can be dispositioned via Soil Pile 7 (or equivalent) per day. These assumptions are different for each campaign due to the type of material and the current package configuration. For this reason, the assumptions are stated on the individual cost estimates.

4) Subtask #4 - Packaging

4.1) Plan/Scope - Packaging

N/A

4.2) Quantification - Packaging

N/A

5) Subtask #5 - Shipping

5.1) Plan/Scope - Shipping

N/A

5.2) Quantification - Shipping

N/A

4.0 ESTIMATE

This work package (MMME) is comprised of two tasks to reflect the two different LLW residues. The waste will have an ultimate disposition of NTS and Envirocare (MMME1 and MMME2 respectively). The estimate to support this work package is comprised of separate estimates for each waste campaign including the estimates for the disposition of all project wastes, including "non-typical" or secondary types of wastes to be encountered during the field operations.

Elements of Cost:
Labor, subcontracts, and ODCs

Estimate Assumptions:

Labor

- Planning and characterization work 8-hour days, while packaging and shipping work 10-hour days.
- Durations of activities for planning are based upon document review necessary to begin project and continuous review of inventory, task orders as needed and revisions of work plans.
- Sorting and Packaging durations based on the rates per day of material processed as demonstrated in the field and on the Manpower spreadsheets supplied to estimating.
- Crew size and skill mix established with input from Operations and the Project Engineer.
- Shipping crew established by Operations.

Quantities

- Based on original SWIFTS inventory as of 12-01-00.

Disposal

- NTS operations will accept residue containers for disposal and they will be overpacked into sea lands for shipping.
- Waste sent to Envirocare will be done via dumping at Soil Pile 7 (or Equivalent) or transfer of the waste containers to the WPRP project.

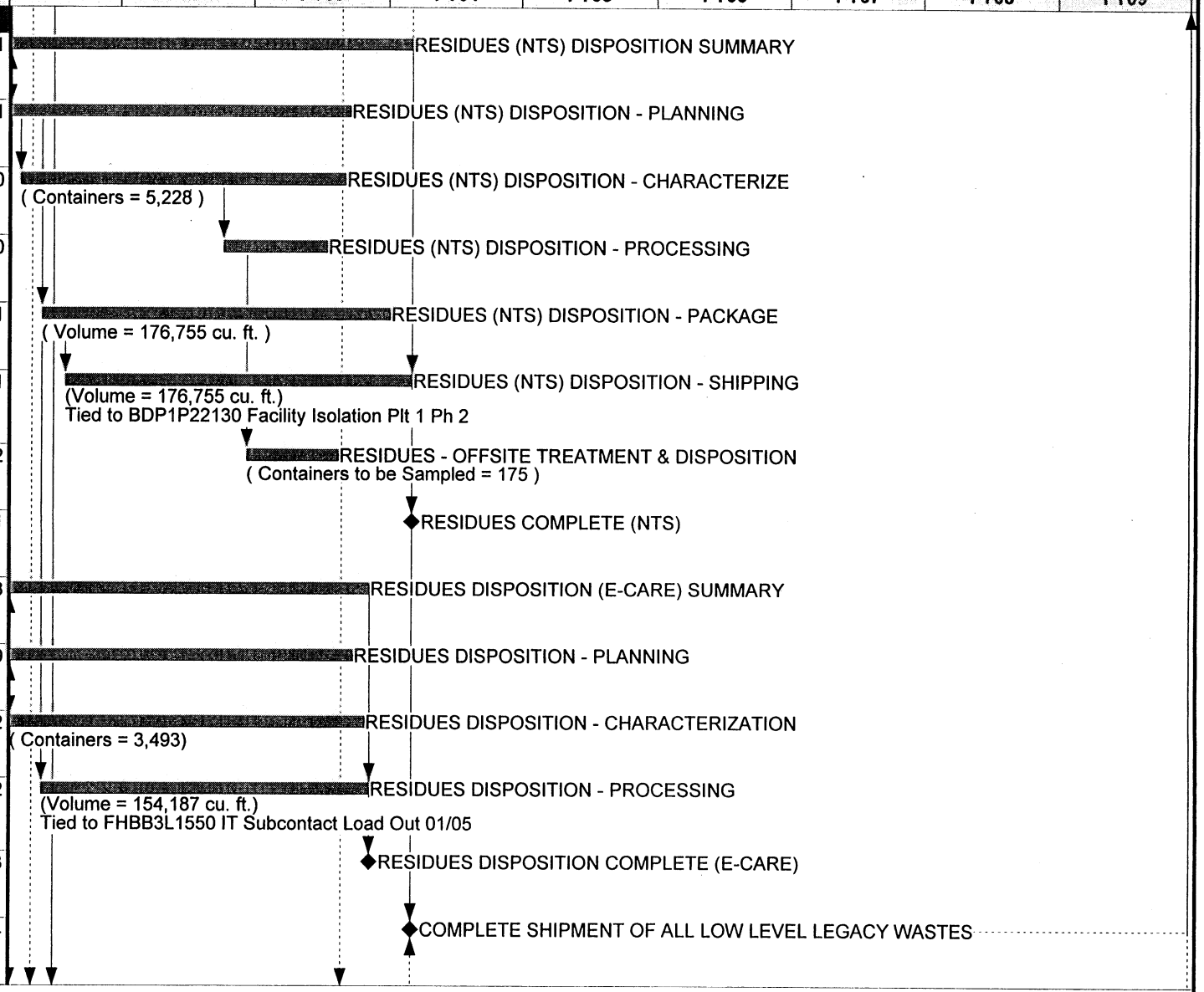
PPE

- Anti-C's at four changes per day for direct labor for Sort and Package operations and regular clothing at four changes per day for direct labor for shipping.

SECTION 5

2.0 SCHEDULE

Activity ID	Orig Dur	Baseline Early start	Baseline Early finish	Total Float	
RESIDUES DISPOSITION					
MMME1H000	603*	04DEC00	04DEC03	411	RESIDUES (NTS) DISPOSITION SUMMARY
MMME16510	508	04DEC00	17JUN03	411	RESIDUES (NTS) DISPOSITION - PLANNING
MMME16520	487	02JAN01	05JUN03	490	RESIDUES (NTS) DISPOSITION - CHARACTERIZE (Containers = 5,228)
MMME16530	155	09JUL02	16APR03	490	RESIDUES (NTS) DISPOSITION - PROCESSING
MMME16540	524	27FEB01	06OCT03	411	RESIDUES (NTS) DISPOSITION - PACKAGE (Volume = 176,755 cu. ft.)
MMME16550	520	02MAY01	04DEC03	411	RESIDUES (NTS) DISPOSITION - SHIPPING (Volume = 176,755 cu. ft.) Tied to BDP1P22130 Facility Isolation Plt 1 Ph 2
MMME16560	138	10SEP02	19MAY03	1,282	RESIDUES - OFFSITE TREATMENT & DISPOSITION (Containers to be Sampled = 175)
MMPBS11006	0		04DEC03	1,171	RESIDUES COMPLETE (NTS)
MMME2H000	541*	04DEC00	13AUG03	718	RESIDUES DISPOSITION (E-CARE) SUMMARY
MMME26610	515	04DEC00	30JUN03	1,259	RESIDUES DISPOSITION - PLANNING
MMME26620	532	04DEC00	29JUL03	1,242	RESIDUES DISPOSITION - CHARACTERIZATION (Containers = 3,493)
MMME26630	495	27FEB01	13AUG03	662	RESIDUES DISPOSITION - PROCESSING (Volume = 154,187 cu. ft.) Tied to FHBB3L1550 IT Subcontact Load Out 01/05
MMPBS11007	0		13AUG03	1,233	RESIDUES DISPOSITION COMPLETE (E-CARE)
MMEPAMILE1	0		04DEC03	1,304	COMPLETE SHIPMENT OF ALL LOW LEVEL LEGACY WASTES



Start Date	01DEC00
Finish Date	30SEP09
Data Date	01DEC00
Run Date	12SEP01 10:13

BLCF - MM01

Sheet 10 of 13

FLUOR FERNALD, INC

Waste Management Baseline Schedule #2

Early Bar
Progress Bar
Critical Activity

Comment Ref: R1-D-559

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SECTION 5

3.0 MANPOWER PLANS

Manpower Planning Sheet (CR2)

MPS # 1ME01 RESIDUES (NTS) DISPOSITION

DRIVERS	START DATE	END DATE	TOT	FY 2001 Q1	Q2	Q3	Q4	FY 2002 Q1	Q2	Q3	Q4	FY 2003 Q1	Q2	Q3	Q4	FY 2004 Q1	Q2	Q3	Q4	FY 2005 Q1	Q2	Q3	Q4	FY 2006 Q1	Q2	Q3	Q4
206 ADMIN COMPLEX D&D	10/01/2004	07/03/2006																		xxx	xxx	xxx	xxx	xxx	xxx	xxx	x
207 EAST WAREHOUSE D&D	10/04/2004	12/14/2004																		xxx							
208 ELECTRICAL STATION D&D	01/03/2005	12/29/2005																			xxx	xxx	xxx	xxx			
209 PLANT 1 PHASE II D&D	10/04/2004	10/12/2005																		xxx	xxx	xxx	xxx	x			
216 Electrical Station (Garage/Heavy Equip. Bldg.)	01/10/2005	03/28/2005																			xxx						
217 Electrical Station (Main Electrical/Substations)	07/10/2006	09/28/2006																									xxx
218 General Sump Complex D&D	10/01/2001	01/07/2003						xxx	xxx	xxx	xxx	xxx	x														
219 General Sump (Elec. Power Center Bldg.)	04/01/2004	07/19/2004																xxx	x								
220 Plant 2 Complex D&D	10/01/2001	04/01/2004						xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	x									
221 Plant 3 Complex D&D	10/01/2001	12/10/2002						xxx	xxx	xxx	xxx	xxx															
222 Plant 8 Complex D&D	10/01/2001	06/26/2003						xxx	xxx	xxx	xxx	xxx	xxx	xxx													
223 Liquid Storage D&D	10/01/2002	03/31/2005										xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx						
224 Lab Complex D&D	10/01/2004	10/31/2005																		xxx	xxx	xxx	xxx	x			
225 Pilot Plant Complex D&D	10/01/2003	09/27/2005														xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx				
301 OSDF Summary Schedule	04/01/2004	12/23/2009																xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
411 AWWT Operations	10/02/2000	12/31/2009		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
502 WASTE PIT SHIP/DISPOSAL OPERATIONS	10/02/2000	08/01/2005		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xx				
601 Soils Excavation Project Summary	10/01/2003	12/31/2009														xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
705 SILOS 1, 2, & 3 CONSTRUCTION & CAT	04/01/2003	04/01/2005												xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	x					
707 SILOS 1, 2, & 3 OPERATIONS	10/03/2005	03/30/2007																						xxx	xxx	xxx	xxx
709 SILOS 1, 2, & 3 SAFE SHUTDOWN and D&D	04/02/2007	03/31/2008																									
710 Silos 1, 2, & 3 Summary Activity	10/02/2000	03/31/2008		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
801 Nuclear Materials Summary	10/02/2000	05/20/2002		xxx	xxx	xxx	xxx	xxx	xxx	xx																	
1001 Mixed Waste Summary	10/02/2000	09/30/2003		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx												
1101 Low Level Waste Summary	10/02/2000	09/30/2005		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx				

	Environmental Safety & H	Rad Engineer	3.50	0.2	0.3	0.1	0.2	0	0.1	0.5	0.2	0.7	0.7	0.3	0.2	0	0	0	0	0	0	0	0	0	0	0	0
	Environmental Safety & H	Rad Tech	28.10	0.2	0.8	2.1	1.1	0.3	1.4	4.1	2.6	3.5	4.3	4.6	2.3	0.8	0	0	0	0	0	0	0	0	0	0	0
	Environmental Safety & H	Safety Engineer	4.10	0.2	0.3	0.2	0.2	0	0.4	0.5	0.8	0.5	0.5	0.4	0.1	0	0	0	0	0	0	0	0	0	0	0	0
	Environmental Safety & H	Safety Tech.	5.40	0	0.1	0.2	0.1	0	0.2	0.8	0.8	1	1.1	0.8	0.3	0	0	0	0	0	0	0	0	0	0	0	0
	General Labor	Hazwat	73.00	0	1.8	5.8	1.6	1.1	3	9.6	6.4	9.3	14	12.9	5.3	2.2	0	0	0	0	0	0	0	0	0	0	0
	Procurement	Material Property Control Rep.	3.60	0	0.1	0.3	0.1	0.1	0.2	0.4	0.3	0.4	0.6	0.5	0.4	0.2	0	0	0	0	0	0	0	0	0	0	0
	Project Management	Project Mgr.	0.20	0	0	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Project Management	Tech/Program Support Rep.	1.70	0	0.1	0.1	0.1	0	0.1	0.4	0.2	0.2	0.2	0.2	0.1	0	0	0	0	0	0	0	0	0	0	0	0
Ops Supervisor	Maintenance	Project Support Manager	14.10	0.1	0.4	0.9	0.4	0.1	0.7	2	1.5	1.8	2.2	2.6	1.1	0.3	0	0	0	0	0	0	0	0	0	0	0
RTR	QA/QC	QA Engineer	2.90	0	0	0.3	0.4	0	0.1	0.2	0.2	0.3	0.3	0.5	0.6	0	0	0	0	0	0	0	0	0	0	0	0

Manpower Planning Sheet (CR2)

MPS # 1ME01 RESIDUES (NTS) DISPOSITION

DRIVERS	START DATE	END DATE	FY 2007 Q1	FY 2007 Q2	FY 2007 Q3	FY 2007 Q4	FY 2008 Q1	FY 2008 Q2	FY 2008 Q3	FY 2008 Q4	FY 2009 Q1	FY 2009 Q2	FY 2009 Q3	FY 2009 Q4	FY 2010 Q1	FY 2010 Q2	FY 2010 Q3	FY 2010 Q4	FY 2011 Q1	FY 2011 Q2	FY 2011 Q3	FY 2011 Q4
206 ADMIN COMPLEX D&D	10/01/2004	07/03/2006																				
207 EAST WAREHOUSE D&D	10/04/2004	12/14/2004																				
208 ELECTRICAL STATION D&D	01/03/2005	12/29/2005																				
209 PLANT 1 PHASE II D&D	10/04/2004	10/12/2005																				
216 Electrical Station (Garage/Heavy Equip. Bld	01/10/2005	03/28/2005																				
217 Electrical Station (Main Electrical/Substation	07/10/2006	09/28/2006																				
218 General Sump Complex D&D	10/01/2001	01/07/2003																				
219 General Sump (Elec. Power Center Bldg.)	04/01/2004	07/19/2004																				
220 Plant 2 Complex D&D	10/01/2001	04/01/2004																				
221 Plant 3 Complex D&D	10/01/2001	12/10/2002																				
222 Plant 8 Complex D&D	10/01/2001	06/26/2003																				
223 Liquid Storage D&D	10/01/2002	03/31/2005																				
224 Lab Complex D&D	10/01/2004	10/31/2005																				
225 Pilot Plant Complex D&D	10/01/2003	09/27/2005																				
301 OSDF Summary Schedule	04/01/2004	12/23/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx							
411 AWWT Operations	10/02/2000	12/31/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx							
502 WASTE PIT SHIP/DISPOSAL OPERATION	10/02/2000	08/01/2005																				
601 Soils Excavation Project Summary	10/01/2003	12/31/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx							
705 SILOS 1, 2, & 3 CONSTRUCTION & CAT	04/01/2003	04/01/2005																				
707 SILOS 1, 2, & 3 OPERATIONS	10/03/2005	03/30/2007	xxx	xxx																		
709 SILOS 1, 2, & 3 SAFE SHUTDOWN and D	04/02/2007	03/31/2008			xxx	xxx	xxx	xxx														
710 Silos 1, 2, & 3 Summary Activity	10/02/2000	03/31/2008	xxx	xxx	xxx	xxx	xxx	xxx														
801 Nuclear Materials Summary	10/02/2000	05/20/2002																				
1001 Mixed Waste Summary	10/02/2000	09/30/2003																				
1101 Low Level Waste Summary	10/02/2000	09/30/2005																				

Environmental Safety & Health	Rad Engineer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Rad Tech	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Safety Engineer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Safety Tech.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
General Labor	Hazwat	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Procurement	Material Property Control Rep.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Management	Project Mgr.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Management	Tech/Program Support Rep.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance	Project Support Manager	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QA/QC	QA Engineer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Manpower Planning Sheet (CR2)

MPS # 1ME01 RESIDUES (NTS) DISPOSITION

DRIVERS		START DATE	END DATE	TOT	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				FY 2006			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	Transportation Labor	Heavy Equipment Operator		4.10	0	0	0.2	0.1	0.1	0.1	0.4	0.7	0.1	1.1	0.8	0.3	0.2	0	0	0	0	0	0	0	0	0	0	0
	Transportation Labor	Motor Vehicle Operator		31.20	0	0.8	2.9	0.8	0.7	1.2	4.1	2.8	3.8	5.2	5.2	2.4	1.3	0	0	0	0	0	0	0	0	0	0	0
	Transportation Labor	Transportation Laborer		2.30	0	0	0	0	0	0	0	0.3	0.3	0.6	1	0.1	0	0	0	0	0	0	0	0	0	0	0	0
	Waste Management	Waste Engineer		23.70	0	1.1	0.6	1.2	0.4	0.5	2.4	5.9	3	3.5	3.8	0.6	0.7	0	0	0	0	0	0	0	0	0	0	0
	Lab	Lab Tech.		0.30	0	0	0	0	0	0	0	0.2	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Craft Labor	Carpenter		0.60	0	0	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0
			Sheet Totals:	198.80	0.70	5.80	14.00	6.40	2.80	8.00	25.40	23.00	25.10	34.40	33.70	13.80	5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Manpower Planning Sheet (CR2)

MPS # 1ME01 RESIDUES (NTS) DISPOSITION

DRIVERS	START DATE	END DATE	FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Transportation Labor	Heavy Equipment Operator		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transportation Labor	Motor Vehicle Operator		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transportation Labor	Transportation Laborer		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Waste Management	Waste Engineer		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lab	Lab Tech.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Craft Labor	Carpenter		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Sheet Totals:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Manpower Planning Sheet (CR2)

MPS # 1ME02 RESIDUES DISPOSITION

	DRIVERS	START DATE	END DATE	TOT	FY 2001 Q1	Q2	Q3	Q4	FY 2002 Q1	Q2	Q3	Q4	FY 2003 Q1	Q2	Q3	Q4	FY 2004 Q1	Q2	Q3	Q4	FY 2005 Q1	Q2	Q3	Q4	FY 2006 Q1	Q2	Q3	Q4
206	ADMIN COMPLEX D&D	10/01/2004	07/03/2006																		xxx	xxx	xxx	xxx	xxx	xxx	xxx	x
207	EAST WAREHOUSE D&D	10/04/2004	12/14/2004																		xxx							
208	ELECTRICAL STATION D&D	01/03/2005	12/29/2005																			xxx	xxx	xxx	xxx			
209	PLANT 1 PHASE II D&D	10/04/2004	10/12/2005																		xxx	xxx	xxx	xxx	x			
216	Electrical Station (Garage/Heavy Equip. Bldg.)	01/10/2005	03/28/2005																			xxx						
217	Electrical Station (Main Electrical/Substations)	07/10/2006	09/28/2006																									xxx
218	General Sump Complex D&D	10/01/2001	01/07/2003						xxx	xxx	xxx	xxx	xxx	x														
219	General Sump (Elec. Power Center Bldg.)	04/01/2004	07/19/2004																xxx	x								
220	Plant 2 Complex D&D	10/01/2001	04/01/2004						xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	x									
221	Plant 3 Complex D&D	10/01/2001	12/10/2002						xxx	xxx	xxx	xxx	xxx															
222	Plant 8 Complex D&D	10/01/2001	06/26/2003						xxx	xxx	xxx	xxx	xxx	xxx	xxx													
223	Liquid Storage D&D	10/01/2002	03/31/2005										xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx						
224	Lab Complex D&D	10/01/2004	10/31/2005																		xxx	xxx	xxx	xxx	x			
225	Pilot Plant Complex D&D	10/01/2003	09/27/2005														xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx				
301	OSDF Summary Schedule	04/01/2004	12/23/2009																xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
411	AWWT Operations	10/02/2000	12/31/2009		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
502	WASTE PIT SHIP/DISPOSAL OPERATIONS	10/02/2000	08/01/2005		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xx				
601	Soils Excavation Project Summary	10/01/2003	12/31/2009														xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
705	SILOS 1, 2, & 3 CONSTRUCTION & CAT	04/01/2003	04/01/2005												xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	x					
707	SILOS 1, 2, & 3 OPERATIONS	10/03/2005	03/30/2007																						xxx	xxx	xxx	xxx
709	SILOS 1, 2, & 3 SAFE SHUTDOWN and D&D	04/02/2007	03/31/2008																									
801	Nuclear Materials Summary	10/02/2000	05/20/2002		xxx	xxx	xxx	xxx	xxx	xxx	xx																	
1001	Mixed Waste Summary	10/02/2000	09/30/2003		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx												
1101	Low Level Waste Summary	10/02/2000	09/30/2005		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx				

				TOT	FY 2001 Q1	Q2	Q3	Q4	FY 2002 Q1	Q2	Q3	Q4	FY 2003 Q1	Q2	Q3	Q4	FY 2004 Q1	Q2	Q3	Q4	FY 2005 Q1	Q2	Q3	Q4	FY 2006 Q1	Q2	Q3	Q4
	Craft Labor	Carpenter		0.30	0	0	0.1	0.1	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0
	Environmental Safety & H	Rad Engineer		0.50	0	0	0.1	0.1	0.1	0	0	0	0	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0
	Environmental Safety & H	Rad Tech		6.10	0.4	0.6	0.5	0.7	0.4	0.1	0.2	0.4	0.4	1.1	0.9	0.4	0	0	0	0	0	0	0	0	0	0	0	0
	Environmental Safety & H	Safety Engineer		0.70	0	0	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0	0
	Environmental Safety & H	Safety Tech.		1.30	0.1	0.1	0.1	0.1	0.1	0	0	0.1	0.1	0.3	0.2	0.1	0	0	0	0	0	0	0	0	0	0	0	0
	General Labor	Hazwat		9.50	0	0.6	0.9	1.6	0.9	0	0	0.5	0.1	1.7	2.1	1.1	0	0	0	0	0	0	0	0	0	0	0	0
	Procurement	Material Property Control Rep.		0.60	0	0	0.1	0.1	0.1	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0	0
	Project Management	Tech/Program Support Rep.		0.50	0	0	0.1	0.1	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0
Ops Sup.	Maintenance	Project Support Manager		6.20	0.3	0.6	0.7	0.9	0.5	0.1	0.1	0.3	0.2	0.9	1	0.6	0	0	0	0	0	0	0	0	0	0	0	0
	Transportation Labor	Heavy Equipment Operator		6.90	0	0.9	1.4	1.7	0.6	0	0	0.5	0	0.7	0.7	0.4	0	0	0	0	0	0	0	0	0	0	0	0
	Transportation Labor	Motor Vehicle Operator		5.90	0	0.5	0.8	1.1	0.7	0	0	0.4	0.1	1	1.2	0.1	0	0	0	0	0	0	0	0	0	0	0	0

Manpower Planning Sheet (CR2)

MPS # 1ME02 RESIDUES DISPOSITION

DRIVERS	START DATE	END DATE	FY 2007 Q1	FY 2007 Q2	FY 2007 Q3	FY 2007 Q4	FY 2008 Q1	FY 2008 Q2	FY 2008 Q3	FY 2008 Q4	FY 2009 Q1	FY 2009 Q2	FY 2009 Q3	FY 2009 Q4	FY 2010 Q1	FY 2010 Q2	FY 2010 Q3	FY 2010 Q4	FY 2011 Q1	FY 2011 Q2	FY 2011 Q3	FY 2011 Q4
206 ADMIN COMPLEX D&D	10/01/2004	07/03/2006																				
207 EAST WAREHOUSE D&D	10/04/2004	12/14/2004																				
208 ELECTRICAL STATION D&D	01/03/2005	12/29/2005																				
209 PLANT 1 PHASE II D&D	10/04/2004	10/12/2005																				
216 Electrical Station (Garage/Heavy Equip. Bld	01/10/2005	03/28/2005																				
217 Electrical Station (Main Electrical/Substation	07/10/2006	09/28/2006																				
218 General Sump Complex D&D	10/01/2001	01/07/2003																				
219 General Sump (Elec. Power Center Bldg.)	04/01/2004	07/19/2004																				
220 Plant 2 Complex D&D	10/01/2001	04/01/2004																				
221 Plant 3 Complex D&D	10/01/2001	12/10/2002																				
222 Plant 8 Complex D&D	10/01/2001	06/26/2003																				
223 Liquid Storage D&D	10/01/2002	03/31/2005																				
224 Lab Complex D&D	10/01/2004	10/31/2005																				
225 Pilot Plant Complex D&D	10/01/2003	09/27/2005																				
301 OSDF Summary Schedule	04/01/2004	12/23/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx							
411 AWWT Operations	10/02/2000	12/31/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx							
502 WASTE PIT SHIP/DISPOSAL OPERATION	10/02/2000	08/01/2005																				
601 Soils Excavation Project Summary	10/01/2003	12/31/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx							
705 SILOS 1, 2, & 3 CONSTRUCTION & CAT	04/01/2003	04/01/2005																				
707 SILOS 1, 2, & 3 OPERATIONS	10/03/2005	03/30/2007	xxx	xxx																		
709 SILOS 1, 2, & 3 SAFE SHUTDOWN and D	04/02/2007	03/31/2008			xxx	xxx	xxx	xxx														
801 Nuclear Materials Summary	10/02/2000	05/20/2002																				
1001 Mixed Waste Summary	10/02/2000	09/30/2003																				
1101 Low Level Waste Summary	10/02/2000	09/30/2005																				

Craft Labor	Carpenter	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Rad Engineer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Rad Tech	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Safety Engineer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Safety Tech.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
General Labor	Hazwat	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Procurement	Material Property Control Rep.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Management	Tech/Program Support Rep.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance	Project Support Manager	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transportation Labor	Heavy Equipment Operator	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transportation Labor	Motor Vehicle Operator	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Manpower Planning Sheet (CR2)

MPS # 1ME02 RESIDUES DISPOSITION

DRIVERS		START DATE	END DATE	TOT	FY 2001 Q1	FY 2001 Q2	FY 2001 Q3	FY 2001 Q4	FY 2002 Q1	FY 2002 Q2	FY 2002 Q3	FY 2002 Q4	FY 2003 Q1	FY 2003 Q2	FY 2003 Q3	FY 2003 Q4	FY 2004 Q1	FY 2004 Q2	FY 2004 Q3	FY 2004 Q4	FY 2005 Q1	FY 2005 Q2	FY 2005 Q3	FY 2005 Q4	FY 2006 Q1	FY 2006 Q2	FY 2006 Q3	FY 2006 Q4
	Waste Management	Waste Engineer		5.30	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.5	0.4	0.5	0.5	0.2	0	0	0	0	0	0	0	0	0	0	0	0
	Lab	Lab Tech.		0.20	0	0	0	0	0.1	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			Sheet Totals:	44.00	1.20	3.80	5.40	7.10	4.00	0.60	0.70	2.80	1.50	6.70	7.10	3.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Manpower Planning Sheet (CR2)

MPS # 1ME02 RESIDUES DISPOSITION

DRIVERS	START DATE	END DATE	FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Waste Management	Waste Engineer		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lab	Lab Tech.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Sheet Totals:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

SECTION 5

4.0 ESTIMATE

MMME1

RESIDUES (NTS) DISPOSITION

09/07/2001
1:50 PM

PBS: OHFN11
WBS: 1.1.M.E
CTRL ACCT: MMME
CHARGE NO: MMME1
COMMENT NO: R1-F11-006, R1-F11-008

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: CRPNTR **CARPENTER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	73.0	25.0	149.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	73.0	98.0	247.0	254.0	254.0	254.0	254.0	254.0	254.0	254.0
Yr Total Cost:	2,261	815	5,145	256	0	0	0	0	0	0
Cum Total Cost:	2,261	3,076	8,220	8,476	8,476	8,476	8,476	8,476	8,476	8,476

Resource: HAZWAT **HAZWAT** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	4,192.0	8,783.8	17,917.2	924.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	4,192.0	12,975.8	30,893.0	31,817.0	31,817.0	31,817.0	31,817.0	31,817.0	31,817.0	31,817.0
Yr Total Cost:	120,688	266,182	575,102	31,407	0	0	0	0	0	0
Cum Total Cost:	120,688	386,870	961,972	993,379	993,379	993,379	993,379	993,379	993,379	993,379

Resource: HEOOPR **HEAVY EQUIP OPERATOR** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	167.0	575.4	1,498.6	63.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	167.0	742.4	2,241.0	2,304.0	2,304:0	2,304.0	2,304.0	2,304.0	2,304.0	2,304.0
Yr Total Cost:	5,254	19,053	52,564	2,340	0	0	0	0	0	0
Cum Total Cost:	5,254	24,307	76,870	79,210	79,210	79,210	79,210	79,210	79,210	79,210

Resource: INHTEC **INDUST HYGIENIST TEC** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	206.0	572.5	1,384.5	30.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	206.0	778.5	2,163.0	2,193.0	2,193.0	2,193.0	2,193.0	2,193.0	2,193.0	2,193.0
Yr Total Cost:	7,764	22,711	58,179	1,335	0	0	0	0	0	0
Cum Total Cost:	7,764	30,475	88,653	89,988	89,988	89,988	89,988	89,988	89,988	89,988

INCLUDES ESCALATION COSTS

09/07/2001
1:50 PM

PBS: OHFN11
WBS: 1.1.M.E
CTRL ACCT: MMME
CHARGE NO: MMME1
COMMENT NO: R1-F11-006, R1-F11-008

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: LABTEC **LAB TECH** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	2.0	65.0	62.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	2.0	67.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0
Yr Total Cost:	56	1,901	1,921	0	0	0	0	0	0	0
Cum Total Cost:	56	1,957	3,878	3,878	3,878	3,878	3,878	3,878	3,878	3,878

RESOURCE TOTALS FOR: MAT300

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Units:	565,898.0	390,241.0	1,303,322.0	247,051.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Units:	565,898.0	956,139.0	2,259,461.0	2,506,512.0	2,506,512.0	2,506,512.0	2,506,512.0	2,506,512.0	2,506,512.0	2,506,512.0
Yr Total Cost:	565,898	400,778	1,374,652	267,868	0	0	0	0	0	0
Cum Total Cost:	565,898	966,676	2,341,327	2,609,195	2,609,195	2,609,195	2,609,195	2,609,195	2,609,195	2,609,195

Resource: MPCREP **MATL PROP CTRL REP** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	221.0	425.0	803.0	73.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	221.0	646.0	1,449.0	1,522.0	1,522.0	1,522.0	1,522.0	1,522.0	1,522.0	1,522.0
Yr Total Cost:	7,143	14,458	28,935	2,786	0	0	0	0	0	0
Cum Total Cost:	7,143	21,601	50,536	53,321	53,321	53,321	53,321	53,321	53,321	53,321

Resource: MVOOPR **MOTOR VEHICLE OPER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	2,062.0	3,925.1	7,152.9	544.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	2,062.0	5,987.1	13,140.0	13,684.0	13,684.0	13,684.0	13,684.0	13,684.0	13,684.0	13,684.0
Yr Total Cost:	59,509	119,234	230,151	18,536	0	0	0	0	0	0
Cum Total Cost:	59,509	178,744	408,894	427,430	427,430	427,430	427,430	427,430	427,430	427,430

INCLUDES ESCALATION COSTS

09/07/2001
1:50 PM

PBS: OHFN11
WBS: 1.1.M.E
CTRL ACCT: MMME
CHARGE NO: MMME1
COMMENT NO: R1-F11-006, R1-F11-008

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: PJSMGR **PROJECT SUPPORT MGR** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	824.0	1,880.2	3,312.8	121.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	824.0	2,704.2	6,017.0	6,138.0	6,138.0	6,138.0	6,138.0	6,138.0	6,138.0	6,138.0
Yr Total Cost:	37,673	90,482	168,863	6,531	0	0	0	0	0	0
Cum Total Cost:	37,673	128,156	297,019	303,550	303,550	303,550	303,550	303,550	303,550	303,550

Resource: QACENG **QA ENGINEER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	325.0	240.0	729.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	325.0	565.0	1,294.0	1,294.0	1,294.0	1,294.0	1,294.0	1,294.0	1,294.0	1,294.0
Yr Total Cost:	14,937	11,610	37,354	0	0	0	0	0	0	0
Cum Total Cost:	14,937	26,547	63,902	63,902	63,902	63,902	63,902	63,902	63,902	63,902

Resource: RADENG **RAD ENGINEER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	287.0	400.0	850.0	32.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	287.0	687.0	1,537.0	1,569.0	1,569.0	1,569.0	1,569.0	1,569.0	1,569.0	1,569.0
Yr Total Cost:	13,546	19,873	44,729	1,783	0	0	0	0	0	0
Cum Total Cost:	13,546	33,419	78,149	79,932	79,932	79,932	79,932	79,932	79,932	79,932

Resource: RADTEC **RAD TECH** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,882.0	3,699.5	6,364.5	336.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,882.0	5,581.5	11,946.0	12,282.0	12,282.0	12,282.0	12,282.0	12,282.0	12,282.0	12,282.0
Yr Total Cost:	64,139	132,707	241,824	13,519	0	0	0	0	0	0
Cum Total Cost:	64,139	196,845	438,669	452,189	452,189	452,189	452,189	452,189	452,189	452,189

INCLUDES ESCALATION COSTS

09/07/2001
1:50 PM

PBS: OHFN11
WBS: 1.1.M.E
CTRL ACCT: MMME
CHARGE NO: MMME1
COMMENT NO: R1-F11-006, R1-F11-008

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: S&HENG **SAFETY ENGINEER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	284.0	748.0	646.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	284.0	1,032.0	1,678.0	1,695.0	1,695.0	1,695.0	1,695.0	1,695.0	1,695.0	1,695.0
Yr Total Cost:	14,118	39,138	35,802	998	0	0	0	0	0	0
Cum Total Cost:	14,118	53,256	89,058	90,056	90,056	90,056	90,056	90,056	90,056	90,056

RESOURCE TOTALS FOR: SERVSUB

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Units:	0.0	532,301.0	4,264,050.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Units:	0.0	532,301.0	4,796,351.0	4,796,351.0	4,796,351.0	4,796,351.0	4,796,351.0	4,796,351.0	4,796,351.0	4,796,351.0
Yr Total Cost:	0	546,673	4,497,417	0	0	0	0	0	0	0
Cum Total Cost:	0	546,673	5,044,090	5,044,090	5,044,090	5,044,090	5,044,090	5,044,090	5,044,090	5,044,090

Resource: TPSREP **TECH/PROG SUPT REP** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	154.0	323.0	332.0	19.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	154.0	477.0	809.0	828.0	828.0	828.0	828.0	828.0	828.0	828.0
Yr Total Cost:	8,002	17,666	19,233	1,166	0	0	0	0	0	0
Cum Total Cost:	8,002	25,667	44,900	46,066	46,066	46,066	46,066	46,066	46,066	46,066

Resource: TRNLAB **TRANSPORT LABORER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	0.0	138.4	837.6	4.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	0.0	138.4	976.0	980.0	980.0	980.0	980.0	980.0	980.0	980.0
Yr Total Cost:	0	3,595	23,048	117	0	0	0	0	0	0
Cum Total Cost:	0	3,595	26,642	26,759	26,759	26,759	26,759	26,759	26,759	26,759

INCLUDES ESCALATION COSTS

09/07/2001
1:50 PM

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

PBS: OHFN11
WBS: 1.1.M.E
CTRL ACCT: MMME
CHARGE NO: MMME1
COMMENT NO: R1-F11-006, R1-F11-008

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: **WSTENG** **WASTE ENGINEER** **EOC:** **LABOR**
Res Dept: **951** **Overtime:** **Class:** **SAL**

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,305.0	3,939.0	4,684.0	282.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,305.0	5,244.0	9,928.0	10,210.0	10,210.0	10,210.0	10,210.0	10,210.0	10,210.0	10,210.0
Yr Total Cost:	66,594	211,576	266,487	16,990	0	0	0	0	0	0
Cum Total Cost:	66,594	278,170	544,657	561,647	561,647	561,647	561,647	561,647	561,647	561,647

GRAND TOTALS:

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	11,984.0	25,739.8	46,723.2	2,452.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	11,984.0	37,723.8	84,447.0	86,899.0	86,899.0	86,899.0	86,899.0	86,899.0	86,899.0	86,899.0
Yr Total Cost:	987,581	1,918,453	7,661,404	365,630	0	0	0	0	0	0
Cum Total Cost:	987,581	2,906,034	10,567,438	10,933,068	10,933,068	10,933,068	10,933,068	10,933,068	10,933,068	10,933,068

CAM_____ CONTROL TEAM_____

INCLUDES ESCALATION COSTS

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW RESIDUES AND OTHER MATERIALS

PBS: 11
WBS: 1.1.M
Control Account: MMME

Duration:
Fiscal Year:

Project: LLW Project Residues to NTS-MMME1
Campaign: RES1001, Plant 9 Scabbled Concrete

Quantity Basis (containers and volume): 6,024 external cubic feet in 753 drums

Charge Number: MMME1
CAM: Todd Clark

Containers for Off-site Shipment: 21
Total Containers minus ROBs: 753

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MILWRT/PIPFTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech Mhrs	QA (QAENG) Req'd	QA Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning		18		280	0.05	9	0.05	9	0	0	0	0	0	0	0.05	9	0.05	9	0	0	0	0	0	0	0	0	0.1	18	0.1	18	0.1	18	1	175	0.05	9	0.05	9	0	0	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection		38	621	2210	3	1130	1	377	0	0	0	0	0	0	0.5	188	1	377	0	0	0.02	8	0	0	0.2	75	0	0	0	0	0	0	0.1	38	0	0	0.05	19	0	0	0	0	0	0
Assumed Number of Samples/Visuals:	753																																											
4. Characterization		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. RTR				1,354																																								
Metal Boxes	0	0	0	0	1	0	0.5	0	0	0	0	0	0.2	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	753	33	362	1354	1	326	0.5	163	0	0	0	0	0.2	65	0.2	65	1	326	0	0	0	0	1	326	0	0	0.05	16	0.05	16	0	0	0.1	33	0	0	0.05	16	0	0	0	0	0	0
6. Repackaging/Overpacking				1,995																																								
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	753	38	524	1995	2	760	1	380	0.1	38	0	0	0	0	0.5	190	1	380	0	0	0	0	0	0	0.2	76	0.05	19	0.05	19	0	0	0.1	38	0.2	76	0.05	19	0	0	0	0	0	0
7. Container Movements				328																																								
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	753	9.5	91	328	1	95	0.5	48	0.5	48	0	0	0	0	0.2	19	1	95	0	0	0	0	0	0	0	0	0.05	5	0.05	5	0	0	0.1	10	0	0	0.05	5	0	0	0	0	0	0
8. Loading and Shipping				816																																								
ISOs	21	7	199	816	5	341	3	205	0.2	14	0	0	0.05	3	0.5	34	1	68	0	0	0	0	0	0	0	0	0.05	3	0.05	3	0	0	1.85	126	0.2	14	0.05	3	0	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						*2,661*		*1,181*		*99*		*0*		*69*		*505*		*1,255*		*0*		*8*		*326*		*151*		*61*		*61*		*18*		*419*		*98*		*71*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	21	$2,000	$42,000
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	1508	$9.68	$14,596
Normal Protective Clothing	change	290	$4.03	$1,168
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	21	$120	$2,520
Other Materials	each	21	$240	$5,040
NTS Truck Freight	shipment	21	$4,600	$96,600
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	21	$100	$2,100
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
WPRAP Processing (residues)	ton	0	$372	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	28,350	$6.57	$186,260
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY		
Total Manhours	6,983	
Total Labor		$229,893
Total Materials		$164,024
Total Subcontracts		$0
Total Burial		$186,260
Total Cost		$580,176
Total Cost minus burial		$393,916

All Costs are stated in FY01 Dollars

Comments and Assumptions:

1. RTR required 100% of containers
2. Repackaging/overpacking includes addition of absorbent.
3. Drums will be overpacked into ISOs at 36 per ISO based on weight restrictions. (Assumes all 753 drums will fit into 21 ISOs)
4. Assumes RES1001 inventory is fixed at 753 drums
5. Decanting will produce 420 gallons of liquid
6. Prohibited Items will be 2% of the total internal volume.
7. All shipping containers must be purchased

Prepared by: Rodney O. Bell
Date Prepared: 08/10/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW RESIDUES AND OTHER MATERIALS

PBS: 11 | Duration:
WBS: 1.1.M | Fiscal Year:
Control Account: MMME

ProjectLLW Project Residues to NTS-MMME1
CampaignRES1002, Bird Droppings, Nests, Carcasses, etc.

Quantity Basis (containers and volume): Approximately 1,370 external cubic feet in 4 metal bo

Charge Number: MMME1
CAM: Todd Clark

Containers for Off-site Shipment: 3
Total Containers minus ROBs: 123

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MILWRT/PIPFT) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech Mhrs	QA (QAENG) Req'd	QA Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning		11		191	0.05	6	0.05	6	0	0	0	0	0	0	0.1	11	0.1	11	0	0	0	0	0	0	0	0	0.1	11	0.1	11	0.1	11	1	112	0.05	6	0.05	6	0	0	0	0	0	0
2. SA	1	16		400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	80	0	0	0	0	2	320	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection Assumed Number of Samples/Visuals: 123		6	101	361	3	185	1	62	0	0	0	0	0	0	0.5	31	1	62	0	0	0.02	1	0	0	0.2	12	0	0	0	0	0	0	0.1	6	0	0	0.05	3	0	0	0	0	0	0
4. Characterization		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.9	0	0	0	0	0	0	0	0	0	0	0
5. RTR				204																																								
Metal Boxes	0	0	0	0	1	0	0.5	0	0	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	119	5	57	204	1	52	0.5	26	0	0	0	0	0	0	0.2	10	1	52	0	0	0	0	1	52	0	0	0.05	3	0.05	3	0	0	0.1	5	0	0	0.05	3	0	0	0	0	0	0
6. Repackaging/Overpacking				368																																								
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	4	1	14	53	2	20	1	10	0.1	1	0	0	0	0	0.5	5	1	10	0	0	0	0	0	0	0.2	2	0.05	1	0.05	1	0	0	0.1	1	0.2	2	0.05	1	0	0	0	0	0	0
Drums	119	6	83	315	2	120	1	60	0.1	6	0	0	0	0	0.5	30	1	60	0	0	0	0	0	0	0.2	12	0.05	3	0.05	3	0	0	0.1	6	0.2	12	0.05	3	0	0	0	0	0	0
7. Container Movements				57																																								
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	4	0.16	2	6	1	2	0.5	1	0.5	1	0	0	0	0	0.2	0	1	2	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	119	1.5	14	52	1	15	0.5	8	0.5	8	0	0	0	0	0.2	3	1	15	0	0	0	0	0	0	0	0	0.05	1	0.05	1	0	0	0.1	2	0	0	0.05	1	0	0	0	0	0	0
8. Loading and Shipping				116																																								
ISOs	3	1	28	116	5	49	3	29	0.2	2	0	0	0.05	0	0.5	5	1	10	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	1.8	18	0.2	2	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						447		200		17		0		0		95		221		0		1		52		24		99		19		11		470		22		16		0		0		0

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	3	$2,000	$6,000
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	255	$9.68	$2,471
Normal Protective Clothing	change	44	$4.03	$179
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	3	$120	$360
Other Materials	each	3	$240	$720
NTS Truck Freight	shipment	3	$4,600	$13,800
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	3	$100	$300
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
WPRAP Processing (residues)	ton	0	$372	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	5,400	$6.57	$35,478
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY

Total Manhours	1,696	
Total Labor		$62,655
Total Materials		$23,830
Total Subcontracts		$0
Total Burial		$35,478
Total Cost		$121,963
Total Cost minus burial		$86,485

All Costs are stated in FY01 Dollars

Comments and Assumptions:

1. Assumes drums will be overpacked into ISOs
2. RTR Required for 100% of containers
3. Absorbent added during repackaging/overpacking activity.
4. Assumes RES1002 inventory is fixed at 119 drums
5. Decant volume will be 85 gallons
6. Prohibited Items will be 2% of total internal volume.

Prepared by: Rodney O. Bell
Date Prepared: 08/10/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW RESIDUES AND OTHER MATERIALS

PBS 11 | Duration:
WBS. 1.1.M | Fiscal Year:
Control Account MMME

Project: LLW Project Residues to NTS-MMME1
Campaign: RES1005, Co-Packaged Uranium

Quantity Basis (containers and volume): 18,746 external cubic feet in 3 ISOs and 138 metal boxes

Charge Number: MMME1
CAM: Todd Clark

Containers for Off-site Shipment: 38
Total Containers minus ROBs: 141

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MRWRT/PPTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	Lab Tech (QACENG) Req'd	Lab Tech Mhrs
1. Campaign Planning		11		194	0.05	6	0.05	6	0	0	0	0	0	0	0.1	11	0.1	11	0	0	0	0
2. SA	1	16		400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection		7	116	414	3	212	1	71	0	0	0	0	0	0	0.5	35	1	71	0	0	0.02	1
Assumed Number of Samples/Visuals:	141																					
4. Characterization		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. RTR				550																		
Metal Boxes	153	13	147	550	1	133	0.5	66	0	0	0	0	0	0	0.2	27	1	133	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0	0	0	0	0	0	0.2	0	1	0	0	0	0	0
6. Repackaging/Overpacking				2,016																		
ISOs	3	4	54	205	2	78	1	39	0.1	4	0	0	0	0	0.5	20	1	39	0	0	0	0
Boxes	141	34.5	476	1811	2	690	1	345	0.1	35	0	0	0	0	0.5	173	1	345	0	0	0	0
Drums	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0
7. Container Movements				245																		
ISOs	3	1	12	45	1	13	0.5	7	0.5	7	0	0	0	0	0.2	3	1	13	0	0	0	0
Metal Boxes	138	5.8	56	200	1	58	0.5	29	0.5	29	0	0	0	0	0.2	12	1	58	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
8. Loading and Shipping				1,511																		
ISOs	38	12.7	370	1511	5	635	3	381	0.2	25	0	0	0.05	6	0.5	64	1	127	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0
Total Manhours by Skill						*1,824*		*943*		*99*		*0*		*6*		*343*		*797*		*0*		*1*

Activity	QA (QAENG) Req'd	QA Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning	0	0	0	0	0.1	11	0.1	11	0.1	11	1	114	0.05	6	0.05	6	0	0	0	0	0	0
2. SA	0	0	0	0	0.5	80	0	0	0	0	2	320	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection	0	0	0.2	14	0	0	0	0	0	0	0.1	7	0	0	0.05	4	0	0	0	0	0	0
4. Characterization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. RTR																						
Metal Boxes	1	133	0	0	0.05	7	0.05	7	0	0	0.1	13	0.2	27	0.05	7	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
6. Repackaging/Overpacking																						
ISOs	0	0	0.2	8	0.05	2	0.05	2	0	0	0.1	4	0.2	8	0.05	2	0	0	0	0	0	0
Boxes	0	0	0.2	69	0.05	17	0.05	17	0	0	0.1	35	0.2	69	0.05	17	0	0	0	0	0	0
Drums	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
7. Container Movements																						
ISOs	0	0	0	0	0.05	1	0.05	1	0	0	0.1	1	0	0	0.05	1	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	3	0.05	3	0	0	0.1	6	0	0	0.05	3	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
8. Loading and Shipping																						
ISOs	0	0	0	0	0.05	6	0.05	6	0	0	1.8	229	0.2	25	0.05	6	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		*133*		*91*		*127*		*47*		*11*		*729*		*134*		*45*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	38	$2,000	$76,000
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	793	$9.68	$7,680
Normal Protective Clothing	change	438	$4.03	$1,764
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	38	$120	$4,560
Other Materials	each	38	$240	$9,120
NTS Truck Freight	shipment	38	$4,600	$174,800
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	38	$100	$3,800
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
WPRAP Processing (residues)	ton	0	$372	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	51,300	$8.69	$445,797
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY		
Total Manhours	5,330	
Total Labor		**$180,943**
Total Materials		**$277,724**
Total Subcontracts		**$0**
Total Burial		**$445,797**
Total Cost		**$904,465**
Total Cost minus burial		**$458,668**

All Costs are stated in FY01 Dollars

Comments and Assumptions:

1. ISOs will be repackaged into other ISOs
2. Boxes will be overpacked into ISOs (4 per ISO)
3. RTR Required for 100% of containers
4. Absorbent added during repackaging/overpacking activity.
5. Assumes decant liquids will be 1,800 gallons
6. Prohibited items will be 2% of total volume.
7. Assumes all shipping containers must be purchased
8. For RTR calculation- 1 ISO converted to 4 metal boxes
9. RTR 15 metal boxes per day

Prepared by: Rodney O. Bell
Date Prepared: 08/10/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW RESIDUES AND OTHER MATERIALS

PBS: 11 | Duration:
WBS: 1.1.M | Fiscal Year:
Control Account: MMME

Project: LLW Project Residues to NTS-MMME1
Campaign: RES1010, Greater than 12% Residues

Quantity Basis (containers and volume): approximately 6,135 cubic feet in 374 drums, 30 metal boxes, and 1 furnace pot

Charge Number: MMME1
CAM: Todd Clark

Containers for Off-site Shipment: 14
Total Containers minus ROBs: 405

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tren. Labor (TRNLAB) Req'd	Tren. Labor (TRNLAB) Mhrs	Maintenance (MNLWRTPWTR) Req'd	Maintenance (MNLWRTPWTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech (LABTECH) Mhrs	QA (QAENG) Req'd	QA (QAENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal. (S&HENG) Req'd	Safety Anal. (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning		14		225	0.05	7	0.05	7	0	0	0	0	0	0	0.05	7	0.05	7	0	0	0	0	0	0	0	0	0.1	14	0.1	14	0.1	14	1	141	0.05	7	0.05	7	0	0	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection		22	362	1288	3	658	1	219	0	0	0	0	0	0	0.5	110	1	219	0	0	0.02	4	0	0	0.2	44	0	0	0	0	0	0	0.1	22	0	0	0.05	11	0	0	0	0	0	0
Assumed Number of Samples/Visuals:	405																																											
4. Characterization		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. RTR				750																																								
Metal Boxes	30	3	29	103	1	26	0.5	13	0	0	0	0	0	0	0.2	5	1	26	0	0	0	0	1	26	0	0	0.05	1	0.05	1	0	0	0.1	3	0	0	0.05	1	0	0	0	0	0	0
Drums	378	16	182	647	1	164	0.5	82	0	0	0	0	0	0	0.2	33	1	164	0	0	0	0	1	164	0	0	0.05	8	0.05	8	0	0	0.1	16	0	0	0.05	8	0	0	0	0	0	0
6. Repackaging/Overpacking				1,402																																								
603	1	0.3	4	16	2	6	1	3	0.1	0	0	0	0	0	0.5	2	1	3	0	0	0	0	0	0	0.2	1	0.05	0	0.05	0	0	0	0.1	0	0.2	1	0.05	0	0	0	0	0	0	0
Boxes	30	7.5	104	394	2	150	1	75	0.1	8	0	0	0	0	0.5	38	1	75	0	0	0	0	0	0	0.2	15	0.05	4	0.05	4	0	0	0.1	8	0.2	15	0.05	4	0	0	0	0	0	0
Drums	378	18.9	261	992	2	378	1	189	0.1	19	0	0	0	0	0.5	95	1	189	0	0	0	0	0	0	0.2	38	0.05	9	0.05	9	0	0	0.1	19	0.2	38	0.05	9	0	0	0	0	0	0
7. Container Movements				278																																								
603	1	0.3	3	10	1	3	0.5	2	0.5	2	0	0	0	0	0.2	1	1	3	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	30	2	16	56	1	16	0.5	8	0.5	8	0	0	0	0	0.2	3	1	16	0	0	0	0	0	0	0	0	0.05	1	0.05	1	0	0	0.1	2	0	0	0.05	1	0	0	0	0	0	0
Drums	378	6	59	212	1	61	0.5	31	0.5	31	0	0	0	0	0.2	12	1	61	0	0	0	0	0	0	0	0	0.05	3	0.05	3	0	0	0.1	6	0	0	0.05	3	0	0	0	0	0	0
8. Loading and Shipping				558																																								
ISOs	14	4.7	137	558	5	235	3	141	0.2	9	0	0	0.05	2	0.5	24	1	47	0	0	0	0	0	0	0	0	0.05	2	0.05	2	0	0	1.78	84	0.2	9	0.05	2	0	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						*1,705*		*770*		*76*		*0*		*2*		*328*		*811*		*0*		*4*		*190*		*97*		*43*		*43*		*14*		*300*		*70*		*47*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	14	$2,000	$28,000
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	941	$9.68	$9,110
Normal Protective Clothing	change	214	$4.03	$863
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	14	$120	$1,680
Other Materials	each	14	$240	$3,360
NTS Truck Freight	shipment	14	$4,600	$64,400
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	14	$100	$1,400
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
WPRAP Processing (residues)	ton	0	$372	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	21,600	$8.69	$187,704
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY		
Total Manhours	4,501	
Total Labor		$148,639
Total Materials		$108,813
Total Subcontracts		$0
Total Burial		$187,704
Total Cost		$445,157
Total Cost minus burial		$257,453

All Costs are stated in FY01 Dollars

Comments and Assumptions:

1. Assumes boxes will be overpacked into ISOs (8 half-height boxes per ISO).
2. Assumes 18 drums from RES1016 will be overpacked in ISO purchased for RES1010
3. 1 ISO per shipment
4. RTR Required for 100 % of containers
5. Absorbent added during repackaging/overpacking activity.
6. Assumes RES1010 inventory is fixed at 30 metal boxes, 377 drums, and 1 furnace pot
7. Decant liquids will be 830 gallons
8. Prohibited items will be 2% of the internal volume.

Prepared by: Rodney O. Bell
Date Prepared: 08/10/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW RESIDUES AND OTHER MATERIALS

PBS: 11
WBS: 1.1.M
Control Account: MMME

Duration
Fiscal Year.

Project: LLW Project Residues to NTS-MMME1
Campaign: RES1012, Floor Sweepings / Misc. Trash

Quantity Basis (containers and volume): approximately 20,704 external cubic feet in 511 drums and 159 metal boxes

Charge Number: MMME1
CAM: Todd Clark

Containers for Off-site Shipment: 40
Total Containers minus ROBs: 670

1 day = 10 mhrs

Make Entries In Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MLWSTEOPTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech Mhrs	QA (QAENG) Req'd	QA Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal. (S&HENG) Req'd	Safety Anal. Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning		17		267	0.05	8	0.05	8	0	0	0	0	0	0	0.05	8	0.05	8	0	0	0	0	0	0	0	0	0.1	17	0.1	17	0.1	17	1	167	0.05	8	0.05	8	0	0	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection		41	684	2435	3	1244	1	415	0	0	0	0	0	0	0.5	207	1	415	0	0	0.02	8	0	0	0.2	83	0	0	0	0	0	0	0.1	41	0	0	0.05	21	0	0	0	0	0	0
Assumed Number of Samples/Visuals:	670																																											
4. Characterization		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. RTR				1,419																																								
Metal Boxes	159	14	153	544	1	138	0.5	69	0	0	0	0	0	0	0.2	[illegible]	1	[illegible]	0	0	0	0	1	138	0	0	0.05	7	0.05	7	0	0	0.1	14	0	0	0.05	7	0	0	0	0	0	0
Drums	511	22	246	875	1	221	0.5	111	0	0	0	0	0	0	0.2	44	1	[illegible]	0	0	0	0	1	221	0	0	0.05	11	0.05	11	0	0	0.1	22	0	0	0.05	11	0	0	0	0	0	0
6. Repackaging/Overpacking				3,434																																								
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	159	39.8	549	2090	2	796	1	398	0.1	40	0	0	0	0	0.5	199	1	[illegible]	0	0	0	0	0	0	0.2	80	0.05	20	0.05	20	0	0	0.1	40	0.2	80	0.05	20	0	0	0	0	0	0
Drums	511	25.6	353	1344	2	512	1	256	0.1	26	0	0	0	0	0.5	128	1	256	0	0	0	0	0	0	0.2	51	0.05	13	0.05	13	0	0	0.1	26	0.2	51	0.05	13	0	0	0	0	0	0
7. Container Movements				449																																								
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	159	6.6	63	228	1	66	0.5	33	0.5	33	0	0	0	0	0.2	13	1	66	0	0	0	0	0	0	0	0	0.05	3	0.05	3	0	0	0.1	7	0	0	0.05	3	0	0	0	0	0	0
Drums	511	6.4	61	221	1	64	0.5	32	0.5	32	0	0	0	0	0.2	13	1	64	0	0	0	0	0	0	0	0	0.05	3	0.05	3	0	0	0.1	6	0	0	0.05	3	0	0	0	0	0	0
8. Loading and Shipping				1,584																																								
ISOs	40	13.3	387	1584	5	665	3	399	0.2	27	0	0	0.05	7	0.5	67	1	133	0	0	0	0	0	0	0	0	0.05	7	0.05	7	0	0	1.81	241	0.2	27	0.05	7	0	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						*3,715*		*1,721*		*157*		*0*		*7*		*707*		*1,699*		*0*		*8*		*359*		*214*		*81*		*81*		*17*		*564*		*166*		*93*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	40	$2,000	$80,000
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	1986	$9.68	$19,221
Normal Protective Clothing	change	512	$4.03	$2,063
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	40	$120	$4,800
Other Materials	each	40	$240	$9,600
NTS Truck Freight	shipment	40	$4,600	$184,000
Envirocare Truck Freight	shipment	0	$5 598	$0
Shoring	shipment	40	$100	$4,000
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
WPRAP Processing (residues)	ton	0	$372	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	54,000	$8.69	$469,260
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY		
Total Manhours	9,587	
Total Labor		**$313,741**
Total Materials		**$303,684**
Total Subcontracts		**$0**
Total Burial		**$469,260**
Total Cost		**$1,086,685**
Total Cost minus burial		**$617,425**

All Costs are stated in FY01 Dollars

Comments and Assumptions:

1. Assumes boxes and drums will be overpacked into 40 ISOs per project engineer
2. All shipping containers must be purchased
3. 1 ISO per shipment
4. RTR Required for 10 % of containers
5. Absorbent added during repackaging/overpacking activity.
6. Assumes RES1012 inventory is fixed at 511 drums and 159 metal boxes
7. Decant liquids will be 870 gallons
8. Prohibited items will be 2% of the internal volume.

Prepared by: Rodney O. Bell
Date Prepared: 8/10/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW RESIDUES AND OTHER MATERIALS

PBS: 11
WBS: 1.1.M
Control Account: MMME

Duration:
Fiscal Year:

Project: LLW Project Residues to NTS-MMME1

Campaign: RES1016, Dry & Powdery Material

Quantity Basis (containers and volume): 4,235 external cubic feet in 255 drums and 21 metal boxes

Charge Number: MMME1
CAM: Todd Clark

Containers for Off-site Shipment: 8
Total Containers minus ROBs: 276

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) eq'd	Hazwat Mhrs	MVO (MVOOPR) eq'd	MVO Mhrs	HEO (HEOOPR) eq'd	HEO Mhrs	Tran. Labor (TRNLAB) eq'd	Tran. Labor Mhrs	Maintenance (MLWRT/MPFTR) eq'd	Maintenance Mhrs	Supervisor (OPRMGR) eq'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) eq'd	NTS Comp. Mhrs	Lab Tech (LABTECH) eq'd	Lab Tech Mhrs	QA (QAENG) eq'd	QA Mhrs	Safety Tech (S&HTEC) eq'd	Safety Tech Mhrs	Rad Eng. (RADENG) eq'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) eq'd	Safety Eng. Mhrs	Safety Anal. (S&HENG) eq'd	Safety Anal. Mhrs	Waste Eng. (WSTENG) eq'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) eq'd	MC&A Clerk Mhrs	TO Writer (TPSREP) eq'd	TO Writer Mhrs	Acquisitions (BUYCON) eq'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) eq'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) eq'd	Admin. Spt. Mhrs
1. Campaign Planning		13		204	0.05	6	0.05	6	0	0	0	0	0	0	0.05	6	0.05	6	0	0	0	0	0	0	0	0	0.1	13	0.1	13	0.1	13	1	128	0.05	6	0.05	6	0	0	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection Assumed Number of Samples/Visuals: 276		17	282	1003	3	513	1	171	0	0	0	0	0	0	0.5	85	1	171	0	0	0.02	3	0	0	0.2	34	0	0	0	0	0	0	0.1	17	0	0	0.05	9	0	0	0	0	0	0
4. Characterization		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. RTR				514																																								
Metal Boxes	21	2	22	77	1	20	0.5	10	0	0	0	0	0	0	0.2	4	1	20	0	0	0	0	1	20	0	0	0.05	1	0.05	1	0	0	0.1	2	0	0	0.05	1	0.00	0	0.00	0	0.00	0
Drums	255	11	123	436	1	111	0.5	55	0	0	0	0	0	0	0.2	22	1	111	0	0	0	0	1	111	0	0	0.05	6	0.05	6	0	0	0.1	11	0	0	0.05	6	0.00	0	0.00	0	0.00	0
6. Repackaging/Overpacking				950																																								
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	21	5.3	73	278	2	106	1	53	0.1	5	0	0	0	0	0.5	27	1	53	0	0	0	0	0	0	0.2	11	0.05	3	0.05	3	0	0	0.1	5	0.2	11	0.05	3	0	0	0	0	0	0
Drums	255	12.8	177	672	2	256	1	128	0.1	13	0	0	0	0	0.5	64	1	128	0	0	0	0	0	0	0.2	26	0.05	6	0.05	6	0	0	0.1	13	0.2	26	0.05	6	0	0	0	0	0	0
7. Container Movements				141																																								
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	21	0.88	8	30	1	9	0.5	4	0.5	4	0	0	0	0	0.2	2	1	9	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	1	0	0	0.05	0	0	0	0	0	0	0
Drums	255	3.2	31	110	1	32	0.5	16	0.5	16	0	0	0	0	0.2	6	1	32	0	0	0	0	0	0	0	0	0.05	2	0.05	2	0	0	0.1	3	0	0	0.05	2	0	0	0	0	0	0
8. Loading and Shipping				321																																								
ISOs	8	2.7	79	321	5	135	3	81	0.2	5	0	0	0.05	1	0.5	14	1	27	0	0	0	0	0	0	0	0	0.05	1	0.05	1	0	0	1.79	48	0.2	5	0.05	1	0	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						*1,187*		*525*		*44*		*0*		*1*		*230*		*556*		*0*		*3*		*130*		*70*		*32*		*32*		*13*		*228*		*48*		*34*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	8	$2,000	$16,000
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	676	$9.68	$6,544
Normal Protective Clothing	change	118	$4.03	$474
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	8	$120	$960
Other Materials	each	8	$240	$1,920
NTS Truck Freight	shipment	8	$4,600	$36,800
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	8	$100	$800
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
WPRAP Processing (residues)	ton	0	$372	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	10,800	$8.69	$93,852
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY		
Total Manhours	3,133	
Total Labor		**$103,893**
Total Materials		**$63,498**
Total Subcontracts		**$0**
Total Burial		**$93,852**
Total Cost		**$261,243**
Total Cost minus burial		**$167,391**

All Costs are stated in FY01 Dollars

Comments and Assumptions:

1. Assumes boxes will be overpacked into ISOs (8 half-height boxes per ISO)
2. Assumes 2 boxes will be overpacked in RES1008 and 18 drums in RES1010
3. 1 ISO per shipment
4. RTR Required for 100 % of containers
5. Absorbent added during repackaging/overpacking activity.
6. Assumes RES1016 inventory is fixed at 234 drums and 30 metal boxes
7. Decant liquids will be 630 gallons
8. Prohibited items will be 2% of the internal volume or 84 cubic feet

Prepared by: Rodney O. Bell
Date Prepared: 08/10/2001

Control Team Review:

Project Review:

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW NON-COMPACTABLE TRASH DISPOSITION

PBS: 11 Duration:
WBS: 1.1.M Fiscal Year:
Control Account: MMME

ProjectLLW Project Residues to NTS-MMME1
CampaignProhibited Items from RES Campaigns

Quantity Basis (containers and volume): approximately 1,139 cu.ft. in 12 metal boxes

Charge Number: MMME1
CAM: Todd Clark

Containers for Off-site Shipment: 0
Total Containers minus ROBs: 12

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) eq'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) eq'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) eq'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) eq'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MILWRT/PIPFT) eq'd	Maintenance (MILWRT/PIPFT) Mhrs	Supervisor (OPRMGR) eq'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) eq'd	NTS Comp. (QACENG) Mhrs
1. Campaign Planning		5		80	0.05	3	0.05	3	0	0	0	0	0	0	0.05	3	0.05	3	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Trash Sorting				653																
ISOs	0	0	0	1	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0
Metal Boxes	12	8	170	652	4	320	1	80	0.1	8	0	0	0.1	8	1	80	1	80	0	0
Drums	0	0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0
4. ROB Movements (assumes round trip for ROBs)																				
ROBs	0	0	0	0	1	0	1	0	0.25	0	2	0	0	0	0.2	0	1	0	0	0
5. Container Movements				0																
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0
6. Loading and Shipping				60																
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	0.5	0	1	0	0	0
Metal Boxes	6	0.6	17	60	3	18	2	12	0	0	2	12	0.05	0	0.5	3	2	12	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0
Total Manhours by Skill						*341*		*95*		*8*		*12*		*8*		*86*		*95*		*0*

Activity	Lab Tech (LABTECH) eq'd	Lab Tech (LABTECH) Mhrs	QA (QAENG) eq'd	QA (QAENG) Mhrs	Safety Tech (S&HTEC) eq'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) eq'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) eq'd	Safety Eng. (S&HENG) Mhrs	Safety Anal. (S&HENG) eq'd	Safety Anal. (S&HENG) Mhrs	Waste Eng. (WSTENG) eq'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) eq'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) eq'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) eq'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) eq'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) eq'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning	0	0	0	0	0	0	0.1	5	0.1	5	0.1	5	1	50	0.05	3	0.05	3	0	0	0	0	0	0
2. SSR	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
3. Trash Sorting																								
ISOs	0.1	1	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.5	40	0.05	4	0.05	4	0	0	0.1	8	0.2	16	0.05	4	0	0	0	0	0	0
Drums	0	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
4. ROB Movements																								
ROBs	0	0	0	0	0.1	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
5. Container Movements																								
ISOs	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
6. Loading and Shipping																								
ISOs	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	1	0.2	1	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		*1*		*0*		*40*		*9*		*9*		*5*		*59*		*20*		*7*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	170	$9.68	$1,649
Normal Protective Clothing	change	17	$4.03	$69
3 Vehicles for Moves	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
1 Vehicle for ROB Moves	day	0	$55	$0
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	0	$4,600	$0
Shoring	shipment	0	$100	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$6.57	$0

* Includes two warehouse attendants in Loading and Shipping

WORKSHEET SUMMARY		
Total Manhours	793	
Total Labor		**$26,019**
Total Materials		**$1,718**
Total Burial		**$0**
Total Cost		**$27,737**
Total Cost minus burial		**$27,737**

All costs are stated in FY01 Dollars

Comments and Assumptions

1. Assumes prohibited items will be repackaged into ISOs
2. Assumes 50% of reworked prohibited items will meet the OSDF WAC
3. Due to small quantity, assumes container, transportation, and burial will be part of another trash campaign.

Prepared by: Rodney O. Bell
Date Prepared: 08/10/2001

Control Team Review:

Project Review:

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LIQUID MIXED WASTES

PBS 11 | Duration:
WBS 1.1.M | Fiscal Year:
Control Account: MMME

ProjectLLW Project Residues to NTS-MMME1
CampaignDecanted Liquids to AWWT

Quantity Basis (containers and volume): approximately 4,635 gallons in 84 (55 gal. Drums)

Charge Number: MMME1
CAM: Todd Clark

Total Containers minus ROBs: 84 | **1 day =** 10 mhrs | **Make Entries In Yellow Shaded Areas Only**

Activity	Days	PPE Count	Total Mhrs	Hazwat (HAZWAT) eq'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) eq'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) eq'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) eq'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MILWRT/PIPFTT) eq'd	Maintenance (MILWRT/PIPFTT) Mhrs	Supervisor (OPRMGR) eq'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) eq'd	NTS Comp. (QACENG) Mhrs	Lab Tech (LABTECII) eq'd	Lab Tech (LABTECII) Mhrs	QA (QAENG) eq'd	QA (QAENG) Mhrs	Safety Tech (S&HTEC) eq'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) eq'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) eq'd	Safety Eng. (S&HENG) Mhrs	Safety Anal. (S&HENG) eq'd	Safety Anal. (S&HENG) Mhrs	Waste Eng. (WSTENG) eq'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) eq'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) eq'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) eq'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) eq'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) eq'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning	11		177	0.05	6	0.05	6	0	0	0	0	0	0	0.05	6	0.05	6	0	0	0	0	0	0	0	0	0.1	11	0.1	11	0.1	11	1	111	0.05	6	0.05	6	0	0	0	0	0	0
2. SSR 0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection Assumed Number of Samples/Visuals: 8	1	18	67	3	33	1	11	0	0	0	0	0	0	0.5	5	1	11	0	0	0.2	2	0	0	0.2	2	0.05	1	0.05	1	0	0	0.1	1	0	0	0.05	1	0	0	0	0	0	0
4. Characterization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. Liquid Bulking Drums 0	0	0	0	4	0	1	0	0	0	0	0	0.2	0	0.5	0	1	0	0	0	0	0	0	0	1	0	0.05	0	0.05	0	0	0	2	0	0.2	0	0.05	0	0	0	0	0	0	0
6. TSCA Shipping Tanker 0	0	0	0	3	0	1	0	0	0	0	0	0.2	0	0.5	0	2.5	0	0	0	0	0	0	0	0.5	0	0.05	0	0.05	0	0	0	2	0	0.2	0	0	0	0	0	0	0	0	0
7. Container Movements			68																																								
ISOs 0	0	0	0	2	0	1	0	0.1	0	2	0	0	0	0.25	0	0.5	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes 0	0	0	0	2	0	1	0	0.1	0	2	0	0	0	0.25	0	0.5	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums 84	1.1	19	68	2	22	1	11	0.1	1	2	22	0	0	0.25	3	0.5	6	0	0	0	0	0	0	0	0	0.05	1	0.05	1	0	0	0	0	0.2	2	0.05	1	0	0	0	0	0	0
Total Manhours by Skill					***60***		***27***		***1***		***22***		***0***		***14***		***22***		***0***		***2***		***0***		***2***		***12***		***12***		***11***		***112***		***8***		***7***		***0***		***0***		***0***

MATERIALS	Unit	Quantity	Rate	Total
Full Anti-Cs	change	18	$9.68	$174
Normal Protective Clothing	change	19	$4.03	$78
3 Vehicles- Moves/Repack	day	0	$165	$0
Labeling/Misc.Materials	each	0	$240	$0
Freight to Oak Ridge	shipment	0	$2,000	$0

SUBCONTRACTS	Unit	Quantity	Rate	Total
Commercial Treatment	gallon	0	$10	$0
Offsite Lab Analysis	sample	0	$1,675	$0
Required TSCA Analysis	batch	0	$47,000	$0

Worksheet Summary		
Total Manhours	313	
Total Labor		**$12,014**
Total Materials		**$252**
Total Subcontracts		**$0**
Total Cost		**$12,266**
Total Cost minus burial		**$12,266**

All costs are stated in FY01 Dollars.

Comments and Assumptions:

1. Assumes the only requirement for LLW liquids is movement to AWWT.
2. Assumes:
   a. 420 gallons from RES1001
   b. 85 gallons from RES1002
   c. 1800 gallons from RES1005
   d. 830 gallons from RES1010
   e. 870 gallons from RES1012
   f. 630 gallons from RES1016

Prepared by: Rodney O. Bell
Date Prepared: 08/10/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW RESIDUES AND OTHER MATERIALS

PBS 11 — Duration
WBS 1.1.M — Fiscal Year
Control Account MMME

Project: LLW Project Residues to NTS (T-hoppers) - MMME1
Campaign: RES1006 T-hoppers (<200# heel)

Quantity Basis (containers and volume): 51,417 ext. cubic feet in 256 T-hoppers and 6 J-hoppers

Charge Number: MMME1
CAM: Todd Clark

Containers for Off-site Shipment: 66
Total Containers minus RORs: 262

1 day = 10 mhrs

Make Entries In Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MLWRT/RPFTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech Mhrs
1. Campaign Planning		13		265	0.05	6	0.05	6	0	0	0	0	0	0	0.1	13	0.1	13	0	0	0	0
2. SA	1	16		400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection		0	0	6	3	0	1	0	0	0	0	0	0	0	0.5	0	1	0	0	0	0.02	6
Assumed Number of Samples/Visuals:	0																					
4. Characterization		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping				0																		
Metal Boxes	0	0	0	0	2	0	2	0	3	0	0	0	0.2	0	0.5	0	1	0	0	0	0	0
Drums	0	0	0	0	2	0	2	0	3	0	0	0	0.2	0	0.5	0	1	0	0	0	0	0
6. Repackaging/Overpacking				1,733																		
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0
Boxes	262	33	455	1733	2	660	1	330	0.1	33	0	0	0	0	0.5	165	1	330	0	0	0	0
Drums	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0
7. Container Movements				0																		
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
8. Loading and Shipping				2,177																		
ISOs	66	21	624	2177	5	1073	3	644	0.2	43	0	0	0.05	11	0.5	107	1	215	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0
Total Manhours by Skill						*1,739*		*930*		*76*		*0*		*11*		*285*		*557*		*0*		*6*

Activity	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning	0	0	0	0	0.1	13	0.1	13	0.5	63	1	126	0.05	6	0.05	6	0	0	0	0	0	0
2. SA	0	0	0	0	0.5	80	0	0	0	0	2	320	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection	0	0	0.2	0	0	0	0	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
4. Characterization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping																						
Metal Boxes	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
6. Repackaging/Overpacking																						
ISOs	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	0	0	0.2	66	0.05	17	0.05	17	0	0	0.1	33	0.2	66	0.05	17	0	0	0	0	0	0
Drums	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
7. Container Movements																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
8. Loading and Shipping																						
ISOs	0	0	0	0	0.05	11	0.05	11	0	0	0.1	21	0.2	43	0.05	11	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		*0*		*66*		*120*		*40*		*63*		*501*		*115*		*34*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	66	$2,000	$132,000
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	455	$9.68	$4,408
Normal Protective Clothing	change	624	$4.03	$2,516
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	66	$120	$7,920
Other Materials	each	66	$240	$15,840
NTS Truck Freight	shipment	66	$4,600	$303,600
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	66	$100	$6,600
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
WPRAP Processing (residues)	ton	0	$372	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	89,100	$10.80	$962,280
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY		
Total Manhours	4,591	
Total Labor		$152,440
Total Materials		$472,884
Total Subcontracts		$0
Total Burial		$962,280
Total Cost		$1,587,604
Total Cost minus burial		$625,324

All Costs are stated in FY01 Dollars

Comments and Assumptions:

1. 4 T/J-hoppers will be overpacked into 1 ISO for shipment.
2. Absorbent will be added during overpacking.
3. All shipping containers will be puchased.
4. Assumes RES1006 inventory is fixed at 256 T-hoppers and 5 J-hoppers
5. Assumes 1 T/J-hopper from RES1007 will be shipped in ISO purchased for RES1006
6. Assumes decanted liquids will be 1,500 gallons
7. Assumes prohibited items will be 2% of the total internal volume or 800 cubic feet

Prepared by: Rodney O. Bell
Date Prepared: 08/10/2001

Control Team Review:

Project Review:

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LIQUID MIXED WASTES

PBS 11 | Duration:
WBS: 1.1.M | Fiscal Year:
Control Account: MMME

Project: LLW Project Residues to NTS (T-hoppers) - MMME1
Campaign: Decanted Liquids from RES1006 and RES1007

Quantity Basis (containers and volume): 1600 gallons in 30 drums

Charge Number: MMME1
CAM: Todd Clark

Total Containers minus ROBs: 30

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Mhrs	Hazwat (HAZWAT) eq'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) eq'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) eq'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) eq'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MNLWRT/PIPFTR) eq'd	Maintenance (MNLWRT/PIPFTR) Mhrs	Supervisor (OPRMGR) eq'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) eq'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) eq'd	NTS Comp. (QACENG) Mhrs	Lab Tech (LABTECH) eq'd	Lab Tech (LABTECH) Mhrs	WAO (WSTENG) eq'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) eq'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) eq'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) eq'd	Safety Eng. (S&HENG) Mhrs	Safety Anal. (S&HENG) eq'd	Safety Anal. (S&HENG) Mhrs	Waste Eng. (WSTENG) eq'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) eq'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) eq'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) eq'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) eq'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) eq'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning		5		85	0.05	3	0.05	3	0	0	0	0	0	0	0.1	5	0.1	5	0	0	0	0	0	0	0	0	0.1	5	0.1	5	0.1	5	1	50	0.05	3	0.05	3	0	0	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection Assumed Number of Samples/Visuals: 3		0	6	24	3	12	1	4	0	0	0	0	0	0	0.5	2	1	4	0	0	0.2	1	0	0	0.2	1	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
4. Characterization		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. Liquid Bulking																																												
Drums	0	0	0	0	4	0	1	0	0	0	0	0	0.2	0	0.5	0	1	0	0	0	0	0	0	0	1	0	0.05	0	0.05	0	0	0	2	0	0.2	0	0.05	0	0	0	0	0	0	0
6. TSCA Shipping																																												
Tanker	0	0	0	0	3	0	1	0	0	0	0	0	0.2	0	0.5	0	2.5	0	0	0	0	0	0	0	0.5	0	0.05	0	0.05	0	0	0	2	0	0.2	0	0	0	0	0	0	0	0	0
7. Container Movements				30																																								
ISOs	0	0	0	0	2	0	1	0	0.1	0	2	0	0	0	0.25	0	0.5	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	2	0	1	0	0.1	0	2	0	0	0	0.25	0	0.5	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	30	0	9	30	2	10	1	5	0.1	0	2	10	0	0	0.25	1	0.5	2	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0	0	0.2	1	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						*24*		*11*		*0*		*10*		*0*		*8*		*11*		*0*		*1*		*0*		*1*		*5*		*5*		*5*		*50*		*3*		*3*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
Full Anti-Cs	change	6	$9.68	$62
Normal Protective Clothing	change	9	$4.03	$34
3 Vehicles- Moves/Repack	day	0	$165	$0
Labeling/Misc.Materials	each	0	$240	$0
Freight to Oak Ridge	shipment	0	$2,000	$0
SUBCONTRACTS	**Unit**	**Quantity**	**Rate**	**Total**
Commercial Treatment	gallon	0	$10	$0
Offsite Lab Analysis	sample	0	$1,675	$0
Required TSCA Analysis	batch	0	$47,000	$0

Worksheet Summary		
Total Manhours	139	
Total Labor		**$5,419**
Total Materials		**$97**
Total Subcontracts		**$0**
Total Cost		**$5,516**
Total Cost minus burial		**$5,516**

All costs are stated in FY01 Dollars.

Comments and Assumptions:

1. Assumes the only requirement for LLW liquids is movement to AWWT.
2. Include 1,600 gallons (28 drums) from RES1006 and 30 gallons (2 drums) from RES1007

Prepared by: Rodney O. Bell
Date Prepared: 08/10/2001

Control Team Review: _____

Project Review: _____

Comments

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW RESIDUES AND OTHER MATERIALS

PBS: 11 | Duration:
WBS: 1.1.M | Fiscal Year:
Control Account: MMME

ProjectLLW Project Residues to NTS (T-hoppers) - MMME1
CampaignRES1007 T-hoppers (<200# heel)

Quantity Basis (containers and volume): 3,349 ext. cubic feet in 3 T-hoppers and 14 J-hoppers

Charge Number: MMME1
CAM: Todd Clark

Containers for Off-site Shipment: 4
Total Containers minus ROBs: 17

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MILWRT/PIPFTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech Mhrs
1. Campaign Planning		10		214	0.05	5	0.05	5	0	0	0	0	0	0	0.1	10	0.1	10	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection		0	0	1	3	0	1	0	0	0	0	0	0	0	0.5	0	1	0	0	0	1	1
Assumed Number of Samples/Visuals:	0																					
4. Characterization		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping				0																		
Metal Boxes	0	0	0	0	2	0	2	0	3	0	0	0	0.2	0	0.5	0	1	0	0	0	0	0
Drums	0	0	0	0	2	0	2	0	3	0	0	0	0.2	0	0.5	0	1	0	0	0	0	0
6. Repackaging/Overpacking				158																		
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0
Boxes	17	3	41	158	2	60	1	30	0.1	3	0	0	0	0	0.5	15	1	30	0	0	0	0
Drums	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0
7. Container Movements				0																		
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
8. Loading and Shipping				132																		
ISOs	4	1	38	132	5	65	3	39	0.2	3	0	0	0.05	1	0.5	7	1	13	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0
Total Manhours by Skill						*130*		*74*		*6*		*0*		*1*		*32*		*53*		*0*		*1*

Activity	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning	0	0	0	0	0.1	10	0.1	10	0.5	51	1	102	0.05	5	0.05	5	0	0	0	0	0	0
2. SSR	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection	0	0	0.2	0	0	0	0	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
4. Characterization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping																						
Metal Boxes	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
6. Repackaging/Overpacking																						
ISOs	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	0	0	0.2	6	0.05	2	0.05	2	0	0	0.1	3	0.2	6	0.05	2	0	0	0	0	0	0
Drums	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
7. Container Movements																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
8. Loading and Shipping																						
ISOs	0	0	0	0	0.05	1	0.05	1	0	0	0.1	1	0.2	3	0.05	1	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		*0*		*6*		*12*		*12*		*51*		*106*		*14*		*7*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	4	$2,000	$8,000
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	41	$9.68	$401
Normal Protective Clothing	change	38	$4.03	$152
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	4	$120	$480
Other Materials	each	4	$240	$960
NTS Truck Freight	shipment	4	$4,600	$18,400
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	4	$100	$400
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
WPRAP Processing (residues)	ton	0	$372	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	5,400	$10.80	$58,320
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY

Total Manhours	505	
Total Labor		$18,968
Total Materials		$28,793
Total Subcontracts		$0
Total Burial		$58,320
Total Cost		$106,081
Total Cost minus burial		$47,761

All Costs are stated in FY01 Dollars

Comments and Assumptions:

1. 4 T/J-hoppers will be overpacked into 1 ISO for shipment
2. Absorbent will be added during overpacking.
3. All shipping containers will be puchased.
4. 1 T/J-hopper will be shipped in partially filled ISO as part of RES1006.
5. Assumes decanted liquids will be 100 gallons
6. Assumes RES1007 inventory is fixed at 3 T-hoppers and 14 J-hoppers.

Prepared by: Rodney O. Bell
Date Prepared: 08/10/2001

Control Team Review:

Project Review:

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW RESIDUES AND OTHER MATERIALS

PBS 11 — Duration:
WBS 1.1.M — Fiscal Year:
Control Account MMME

Project: LLW NPDS RESIDUES-MMME1

Campaign: NPDS1001

Quantity Basis (containers and volume): approximately 1,053 cu.ft. in 10 metal boxes and 1 drum

Charge Number: MMME1
CAM: Dave Wood

Containers for Off-site Shipment: 3 — 1 day = 10 mhrs — Make Entries In Yellow Shaded Areas Only
Total Containers minus ROBs: 11

Activity	v 2, 04/25/20	Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MNTRTRPFTR) Req'd	Maintenance (MNTRTRPFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech (LABTECH) Mhrs	QA (QAENG) Req'd	QA (QAENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERK8) Req'd	Admin. Spt. (CLERK8) Mhrs
1. Campaign Planning		10		162	0.05	5	0.05	5	0	0	0	0	0	0	0.05	5	0.05	5	0	0	0	0	0	0	0	0	0.1	10	0.1	10	0.1	10	1	101	0.05	5	0.05	5	0	0	0	0	0	0
2. SSR	1	16		400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	80	0	0	0	0	2	320	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection		1	24	85	3	43	1	14	0	0	0	0	0	0	0.5	7	1	14	0	0	0.1	1	0	0	0.2	3	0	0	0	0	0	0	0.1	1	0	0	0.05	1	0	0	0	0	0	0
Assumed Number of Samples/Visuals:	11																																											
4. Characterization		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. Container Movement				51																																								
Metal Boxes	10	1	14	50	2	11	2	11	3	16	0	0	0.2	1	0.5	3	1	5	0	0	0	0	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	1	0.2	1	0.05	0	0	0	0	0	0	0
Drums	1	0	0	1	2	0	2	0	3	0	0	0	0.2	0	0.5	0	1	0	0	0	0	0	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
6. Repackaging/Overpacking				134																																								
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	10	2.5	35	131	2	50	1	25	0.1	3	0	0	0	0	0.5	13	1	25	0	0	0	0	0	0	0.2	5	0.05	1	0.05	1	0	0	0.1	3	0.2	5	0.05	1	0	0	0	0	0	0
Drums	1	0.05	1	3	2	1	1	1	0.1	0	0	0	0	0	0.5	0	1	1	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
7. RTR				45																																								
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	10	1.0	13	45	1	10	0.5	5	0.5	5	0	0	0	0	0.2	2	1	10	0	0	0	0	1	10	0	0	0.05	1	0.05	1	0	0	0.1	1	0	0	0.05	1	0	0	0	0	0	0
Drums	1	0.02	0	1	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	1	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
8. Loading and Shipping				119																																								
ISOs	3	1	29	119	5	50	3	30	0.2	2	0	0	0.05	1	0.5	5	1	10	0	0	0	0	0	0	0	0	0.05	1	0.05	1	0	0	1.8	18	0.2	2	0.05	1	0	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						170		91		26		0		2		35		71		0		1		10		8		93		13		10		445		13		8		0		0		0

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	3	$2,000	$6,000
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	73	$9.68	$707
Normal Protective Clothing	change	42	$4.03	$169
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	3	$120	$360
Other Materials	each	3	$240	$720
NTS Truck Freight	shipment	3	$4,600	$13,800
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	3	$100	$300
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
WPRAP Processing (residues)	ton	0	$372	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	4,050	$6.57	$26,608.5
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY		
Total Manhours	996	
Total Labor		**$39,565**
Total Materials		**$22,056**
Total Subcontracts		**$0**
Total Burial		**$26,609**
Total Cost		**$88,230**
Total Cost minus burial		**$61,621**

All Costs are stated in FY01 Dollars

Comments and Assumptions:
1. RTR required
2. Repackaging and overpacking includes addition of absorbent

Prepared by: Rodney O. Bell
Date Prepared: 08/10/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW RESIDUES AND OTHER MATERIALS

PBS: 11 Duration:
WBS: 1.1.M Fiscal Year:
Control Account: MMME

ProjectLLW NPDS RESIDUES-MMME1
CampaignNPDS1003 - residues

Quantity Basis (containers and volume): approximately 3,920 cu.ft. in 490 containers

Charge Number: MMME1
CAM: Dave Wood

Containers for Off-site Shipment: 14
Total Containers minus ROBs: 490

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity	v 2, 04/25/20	Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MILWRT/PIPFT/TN) Req'd	Maintenance (MILWRT/PIPFT/TN) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech (LABTECH) Mhrs	QA (QAENG) Req'd	QA (QAENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERK8) Req'd	Admin. Spt. (CLERK8) Mhrs
1. Campaign Planning		15		238	0.05	7	0.05	7	0	0	0	0	0	0	0.05	7	0.05	7	0	0	0	0	0	0	0	0	0.1	15	0.1	15	0.1	15	1	149	0.05	7	0.05	7	0	0	0	0	0	0
2. SA	1	16		400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	80	0	0	0	0	2	320	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection Assumed Number of Samples/Visuals: 490		25	420	1496	3	764	1	255	0	0	0	0	0	0	0.5	127	1	255	0	0	0.02	5	0	0	0.2	51	0	0	0	0	0	0	0.1	25	0	0	0.05	13	0	0	0	0	0	0
4. Characterization		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. Container Movement				733																																								
Metal Boxes	0	0	0	0	2	0	2	0	3	0	0	0	0.2	0	0.5	0	1	0	0	0	0	0	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	490	8	203	733	2	159	2	159	3	239	0	0	0.2	16	0.5	40	1	80	0	0	0	0	0	0	0.05	4	0.05	4	0.05	4	0	0	0.1	8	0.2	16	0.05	4	0	0	0	0	0	0
6. Repackaging/Overpacking				1,286																																								
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	490	24.5	338	1286	2	490	1	245	0.1	25	0	0	0	0	0.5	123	1	245	0	0	0	0	0	0	0.2	49	0.05	12	0.05	12	0	0	0.1	25	0.2	49	0.05	12	0	0	0	0	0	0
7. RTR				1,090																																								
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	490	25	309	1090	1	245	0.5	123	0.5	123	0	0	0	0	0.2	49	1	245	0	0	0	0	1	245	0	0	0.05	12	0.05	12	0	0	0.1	25	0	0	0.05	12	0	0	0	0	0	0
8. Loading and Shipping				556																																								
ISOs	14	4.7	137	556	5	235	3	141	0.2	9	0	0	0.05	2	0.5	24	1	47	0	0	0	0	0	0	0	0	0.05	2	0.05	2	0	0	1.78	84	0.2	9	0.05	2	0	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						*1,901*		*930*		*395*		*0*		*18*		*370*		*879*		*0*		*5*		*245*		*104*		*126*		*46*		*15*		*635*		*82*		*51*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	14	$2,000	$28,000
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	962	$9.68	$9,308
Normal Protective Clothing	change	445	$4.03	$1,795
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	14	$120	$1,680
Other Materials	each	14	$240	$3,360
NTS Truck Freight	shipment	14	$4,600	$64,400
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	14	$100	$1,400
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
WPRAP Processing (residues)	ton	0	$372	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	18,900	$6.57	$124,173
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY		
Total Manhours	5,801	
Total Labor		**$195,522**
Total Materials		**$109,943**
Total Subcontracts		**$0**
Total Burial		**$124,173**
Total Cost		**$429,639**
Total Cost minus burial		**$305,466**

All Costs are stated in FY01 Dollars

Comments and Assumptions:
1. RTR required
2. Absorbent added during repackaging/overpacking activity.
3. 36 boxes per S/L

Prepared by: Rodney O. Bell
Date Prepared: 08/10/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW RESIDUES AND OTHER MATERIALS

PBS: 11 | Duration:
WBS: 1.1.M | Fiscal Year:
Control Account: MMME

Project: LLW NPDS RESIDUES-MMME1

Campaign: NPDS1004 - residues

Charge Number: MMME1
CAM: Dave Wood

Quantity Basis (containers and volume): approximately 888 cu.ft. in 111 drums

Containers for Off-site Shipment: 3 | 1 day = 10 mhrs | Make Entries in Yellow Shaded Areas Only
Total Containers minus ROBs: 111

Activity v 2, 04/25/20	Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MLWRTRPFTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech Mhrs	QA (QAENG) Req'd	QA Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning	11		178	0.05	6	0.05	6	0	0	0	0	0	0	0.05	6	0.05	6	0	0	0	0	0	0	0	0	0.1	11	0.1	11	0.1	11	1	111	0.05	6	0.05	6	0	0	0	0	0	0
2. SA 0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection	6	95	339	3	173	1	58	0	0	0	0	0	0	0.5	29	1	58	0	0	0.02	1	0	0	0.2	12	0	0	0	0	0	0	0.1	6	0	0	0.05	3	0	0	0	0	0	0
Assumed Number of Samples/Visuals: 111																																											
4. Characterization	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. Container Movement			166																																								
Metal Boxes 0	0	0	0	2	0	2	0	3	0	0	0	0.2	0	0.5	0	1	0	0	0	0	0	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums 111	2	46	166	2	36	2	36	3	54	0	0	0.2	4	0.5	9	1	18	0	0	0	0	0	0	0.05	1	0.05	1	0.05	1	0	0	0.1	2	0.2	4	0.05	1	0	0	0	0	0	0
6. Repackaging/Overpacking			294																																								
ISOs 0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes 0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums 111	5.6	77	294	2	112	1	56	0.1	6	0	0	0	0	0.5	28	1	56	0	0	0	0	0	0	0.2	11	0.05	3	0.05	3	0	0	0.1	6	0.2	11	0.05	3	0	0	0	0	0	0
7. RTR			267																																								
ISOs 0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes 0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums 111	6	76	267	1	60	0.5	30	0.5	30	0	0	0	0	0.2	12	1	60	0	0	0	0	1	60	0	0	0.05	3	0.05	3	0	0	0.1	6	0	0	0.05	3	0	0	0	0	0	0
8. Loading and Shipping			119																																								
ISOs 3	1	29	119	5	50	3	30	0.2	2	0	0	0.05	1	0.5	5	1	10	0	0	0	0	0	0	0	0	0.05	1	0.05	1	0	0	1.80	18	0.2	2	0.05	1	0	0	0	0	0	0
Metal Boxes 0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums 0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill					*437*		*215*		*92*		*0*		*4*		*88*		*207*		*0*		*1*		*60*		*24*		*18*		*18*		*11*		*148*		*22*		*16*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	3	$2,000	$6,000
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	219	$9.68	$2,115
Normal Protective Clothing	change	105	$4.03	$422
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	3	$120	$360
Other Materials	each	3	$240	$720
NTS Truck Freight	shipment	3	$4,600	$13,800
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	3	$100	$300
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
WPRAP Processing (residues)	ton	0	$372	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	2,128	$6.57	$13,981
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY		
Total Manhours	1,363	
Total Labor		**$46,257**
Total Materials		**$23,717**
Total Subcontracts		**$0**
Total Burial		**$13,981**
Total Cost		**$83,955**
Total Cost minus burial		**$69,974**

All Costs are stated in FY01 Dollars

Comments and Assumptions:
1. RTR required
2. Absorbent added during repackaging / overpacking activity.

Prepared by: Rodney O. Bell
Date Prepared: 08/10/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW RESIDUES AND OTHER MATERIALS

PBS: 11 Duration:
WBS: 1.1.M Fiscal Year:
Control Account: MMME

Project: LLW NPDS RESIDUES-MMME1

Campaign: NPDS1005 - residues

Quantity Basis (containers and volume): approximately 48 cu.ft. in 6 drums

Charge Number: MMME1
CAM: Dave Wood

Containers for Off-site Shipment: 1 1 day = 10 mhrs Make Entries in Yellow Shaded Areas Only
Total Containers minus ROBs: 6

Activity v 2, 04/25/20	Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MILWRT/INFTR) Req'd	Maintenance (MILWRT/INFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech (LABTECH) Mhrs
1. Campaign Planning	10		161	0.05	5	0.05	5	0	0	0	0	0	0	0.05	5	0.05	5	0	0	0	0
2. SA 0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection	1	13	46	3	23	1	8	0	0	0	0	0	0	0.5	4	1	8	0	0	0.1	1
Assumed Number of Samples/Visuals: 6																					
4. Characterization	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. Container Movement			9																		
Metal Boxes 0	0	0	0	2	0	2	0	3	0	0	0	0.2	0	0.5	0	1	0	0	0	0	0
Drums 6	0	2	9	2	2	2	2	3	3	0	0	0.2	0	0.5	0	1	1	0	0	0	0
6. Repackaging/Overpacking			16																		
ISOs 0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0
Boxes 0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0
Drums 6	0.3	4	16	2	6	1	3	0.1	0	0	0	0	0	0.5	2	1	3	0	0	0	0
7. RTR			27																		
ISOs 0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Metal Boxes 0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Drums 6	0.6	8	27	1	6	0.5	3	0.5	3	0	0	0	0	0.2	1	1	6	0	0	0	0
8. Loading and Shipping			25																		
ISOs 0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	0.5	0	1	0	0	0	0	0
Metal Boxes 1	0.3	7	25	3	8	2	5	0	0	2	5	0.05	0	0.5	1	2	5	0	0	0	0
Drums 0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0
Total Manhours by Skill					50		26		6		5		0		13		28		0		1

Activity	QA (QAENG) Req'd	QA (QAENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning	0	0	0	0	0.1	10	0.1	10	0.1	10	1	101	0.05	5	0.05	5	0	0	0	0	0	0
2. SA	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection	0	0	0.2	2	0	0	0	0	0	0	0.1	1	0	0	0.05	0	0	0	0	0	0	0
4. Characterization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. Container Movement																						
Metal Boxes	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
6. Repackaging/Overpacking																						
ISOs	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.2	1	0.05	0	0.05	0	0	0	0.1	0	0.2	1	0.05	0	0	0	0	0	0	0
7. RTR																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	1	6	0	0	0.05	0	0.05	0	0	0	0.1	1	0	0	0.05	0	0	0	0	0	0	0
8. Loading and Shipping																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	1	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		6		2		11		11		10		103		5		6		0		0		0

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	19	$9.68	$189
Normal Protective Clothing	change	15	$4.03	$59
3 Vehicles for Moves Repackaging	day	1	$165	$149
4 Vehicles for Loading	day	0	$220	$55
Absorbent	each	1	$120	$120
Other Materials	each	1	$240	$240
NTS Truck Freight	shipment	0	$4,600	$0
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	0	$100	$0
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
WPRAP Processing (residues)	ton	0	$372	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	112	$6.57	$736
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY		
Total Manhours	284	
Total Labor		**$11,145**
Total Materials		**$811**
Total Subcontracts		**$0**
Total Burial		**$736**
Total Cost		**$12,693**
Total Cost minus burial		**$11,957**

All Costs are stated in FY01 Dollars

Comments and Assumptions:

1. Due to small quantity, assumes planning and characterization wil be done as part of another campaign.
2. Due to small quantity, assumes transportation will be done as part of another campaign.
3. Due to small quantity, assumes burial will be done as part of another campaign.
4. RTR required.
5. Absorbent added during repackaging / overpacking

Prepared by: Rodney O. Bell
Date Prepared: 08/10/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW RESIDUES AND OTHER MATERIALS

PBS: 11 Duration:
WBS: 1.1.M Fiscal Year:
Control Account: MMME

Project: LLW NPDS RESIDUES-MMME1

Campaign: NPDS1006 - residues

Charge Number: MMME1
CAM: Dave Wood

Quantity Basis (containers and volume): approximately 6,793 cu.ft. in 65 metal boxes

Containers for Off-site Shipment: 17 — 1 day = 10 mhrs — Make Entries in Yellow Shaded Areas Only
Total Containers minus ROBs: 65

Activity v 2, 04/25/20	Days	PPE Count	Total Manhours	Hazwat (HAZWAT) eq'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) eq'd	HEO Mhrs	Tran. Labor (TRNLAB) eq'd	Tran. Labor Mhrs	Maintenance (MILWRT/PIPFTR) eq'd	Maintenance Mhrs	Supervisor (OPRMGR) eq'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp (QACENG) eq'd	NTS Comp Mhrs	Lab Tech (LABTECH) eq'd	Lab Tech Mhrs	QA (QAENG) eq'd	QA Mhrs	Safety Tech (S&HTEC) eq'd	Safety Tech Mhrs	Rad Eng. (RADENG) eq'd	Rad Eng. Mhrs	Safety Eng (S&HENG) eq'd	Safety Eng Mhrs	Safety Ana (S&HENG) eq'd	Safety Ana Mhrs	Waste Eng (WSTENG) eq'd	Waste Eng Mhrs	MC&A Clerk (MPCREP) eq'd	MC&A Clerk Mhrs	TO Writer (TPSREP) eq'd	TO Writer Mhrs	Acquisitions (BUYCON) eq'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) eq'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) eq'd	Admin. Spt. Mhrs
1. Campaign Planning	11		170	0.05	5	0.05	5	0	0	0	0	0	0	0.05	5	0.05	5	0	0	0	0	0	0	0.00	0	0.1	11	0.1	11	0.1	11	1	107	0.05	5	0.05	5	0	0	0	0	0	0
2. SA 0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection (Assumed Number of Samples/Visuals: 65)	8	139	496	3	254	1	85	0	0	0	0	0	0	0.5	42	1	85	0	0	0.02	2	0	0	0.2	17	0	0	0	0	0	0	0.1	8	0	0	0.05	4	0	0	0	0	0
4. Characterization	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. Container Movement			324																																							
Metal Boxes 65	4	90	324	2	70	2	70	3	106	0	0	0.2	7	0.5	18	1	35	0	0	0	0	0	0	0.05	2	0.05	2	0.05	2	0	0	0.1	4	0.2	7	0.05	2	0	0	0	0	0
Drums 0	0	0	0	2	0	2	0	3	0	0	0	0.2	0	0.5	0	1	0	0	0	0	0	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0
6. Repackaging/Overpacking			866																																							
ISOs 0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0
Boxes 65	16.5	228	866	2	330	1	165	0.1	17	0	0	0	0	0.5	83	1	165	0	0	0	0	0	0	0.2	33	0.05	8	0.05	8	0	0	0.1	17	0.2	33	0.05	8	0	0	0	0	0
Drums 0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0
7. RTR			289																																							
ISOs 0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0
Metal Boxes 65	6.5	82	289	1	65	0.5	33	0.5	33	0	0	0	0	0.2	13	1	65	0	0	0	0	1	65	0	0	0.05	3	0.05	3	0	0	0.1	7	0	0	0.05	3	0	0	0	0	0
Drums 0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0
8. Loading and Shipping			669																																							
ISOs 16	5.7	166	669	5	285	3	171	0.2	11	0	0	0.05	3	0.5	29	1	57	0	0	0	0	0	0	0	0	0.05	3	0.05	3	0	0	1.69	96	0.2	11	0.05	3	0	0	0	0	0
Metal Boxes 0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0
Drums 0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0
Total Manhours by Skill					*1,009*		*529*		*166*		*0*		*10*		*189*		*412*		*0*		*2*		*65*		*52*		*27*		*27*		*11*		*238*		*57*		*26*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	17	$2,000	$34,000
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	457	$9.68	$4,423
Normal Protective Clothing	change	248	$4.03	$999
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	17	$120	$2,040
Other Materials	each	17	$240	$4,080
NTS Truck Freight	shipment	17	$4,600	$78,200
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	17	$100	$1,700
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
WPRAP Processing (residues)	ton	0	$372	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	22,950	$6.57	$150,782
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY

Total Manhours	2,818	
Total Labor		$92,701
Total Materials		$125,441
Total Subcontracts		$0
Total Burial		$150,782
Total Cost		$368,924
Total Cost minus burial		$218,142

All Costs are stated in FY01 Dollars

Comments and Assumptions:
1. Assumes boxes will be overpacked into ISOs (4 pack)
2. 1 ISO per shipment
3. RTR required
4. Absorbent added during repackaging / overpacking activity

Prepared by: Rodney O. Bell
Date Prepared: 08/10/2001

Control Team Review:

Project Review:

NTS Burial Calculations	Drums	Boxes	ISOs	
enter # of containers to be buried	0	0	17	
burial volume	0	0	22950	

Envirocare Burial Calculations	Drums	Boxes	ISO	
enter # of containers to be buried	0	0		0
burial volume	0	0		0

Labor Rate Calculations																				
Hazwat Labor	MVO Labor	HEO Labor	TL Labor	Move Labor	Sup Labor	RCT Labor	NTS Labor	Lab Tech	QA	ST Labor	RE Labor	SE Labor	SA Labor	WE Labor	MCA Labor	TO Labor	Buy Labor	PM Labor	Admin Labor
$39,521	$15,571	$4,669	$0	$303	$68,439	$13,370	$0	$51	$7,517	$1,383	$1,190	$1,433	$566	$10,965	$1,555	$1,252	$0	$0	$0
HAZWAT	MVOOPR	HEOOPR	TRNLAB	MILWRT	OPRMGR	RADTEC	QACENG	LABTECH	WSTENG	S&HTEC	RADENG	S&HENG	S&HENG	WSTENG	MPCREP	TPSREP	BUYCON	PRJMGR	CLERKS

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW RESIDUES AND OTHER MATERIALS

PBS: 11 | Duration:
WBS: 1.1.M | Fiscal Year:
Control Account: MMME

ProjectLLW PROJECT NPDS- RESIDUES
CampaignNPDS1007, RESIDUES

Quantity Basis (containers and volume): approximately 2,100 cu.ft. in 20 metal boxes

Charge Number: MMME1
CAM: Dave Wood

Containers for Off-site Shipment: 5
Total Containers minus ROBs: 20

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity v 2, 04/25/20	Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MILWRT/PIPFTR) Req'd	Maintenance (MILWRT/PIPFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech (LABTECH) Mhrs	QA (QAENG) Req'd	QA (QAENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning	10		163	0.05	5	0.05	5	0	0	0	0	0	0	0.05	5	0.05	5	0	0	0	0	0	0	0	0	0.1	10	0.1	10	0.1	10	1	102	0.05	5	0.05	5	0	0	0	0	0	0
2. SA 0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection	3	43	153	3	78	1	26	0	0	0	0	0	0	0.5	11	1	[illegible]	0	0	0.05	1	0	0	0.2	5	0	0	0	0	0	0	0.1	3	0	0	0.05	1	0	0	0	0	0	0
Assumed Number of Samples/Visuals: 20																																											
4. Characterization	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. Container Movement			100																																								
Metal Boxes 20	1	28	100	2	22	2	22	3	33	0	0	0.2	2	0.5	5	1	11	0	0	0	0	0	0	0.05	1	0.05	1	0.05	1	0	0	0.1	1	0.2	2	0.05	1	0	0	0	0	0	0
Drums 0	0	0	0	2	0	2	0	3	0	0	0	0.2	0	0.5	0	1	0	0	0	0	0	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
6. Repackaging/Overpacking			263																																								
ISOs 0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes 20	5	69	263	2	100	1	50	0.1	5	0	0	0	0	0.5	25	1	50	0	0	0	0	0	0	0.2	10	0.05	3	0.05	3	0	0	0.1	5	0.2	10	0.05	3	0	0	0	0	0	0
Drums 0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
7. RTR			89																																								
ISOs 0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes 20	2	25	89	1	20	0.5	10	0.5	10	0	0	0	0	0.2	4	1	20	0	0	0	0	1	20	0	0	0.05	1	0.05	1	0	0	0.1	2	0	0	0.05	1	0	0	0	0	0	0
Drums 0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
8. Loading and Shipping			191																																								
ISOs 5	1.6	47	191	5	80	3	48	0.2	3	0	0	0.05	1	0.5	8	1	16	0	0	0	0	0	0	0	0	0.05	1	0.05	1	0	0	1.9	30	0.2	3	0.05	1	0	0	0	0	0	0
Metal Boxes 0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums 0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill					305		161		51		0		3		61		128		0		1		20		16		15		15		10		143		20		11		0		0		0

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	5	$2,000	$10,000
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	140	$9.68	$1,351
Normal Protective Clothing	change	72	$4.03	$289
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	5	$120	$600
Other Materials	each	5	$240	$1,200
NTS Truck Freight	shipment	5	$4,600	$23,000
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	5	$100	$500
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
WPRAP Processing (residues)	ton	0	$372	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	6,750	$8.69	$58,658
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY		
Total Manhours	960	
Total Labor		**$32,968**
Total Materials		**$36,940**
Total Subcontracts		**$0**
Total Burial		**$58,658**
Total Cost		**$128,565**
Total Cost minus burial		**$69,908**

All Costs are stated in FY01 Dollars

Comments and Assumptions:
1. Assumes boxes will be overpacked into ISOs (4 pack)
2. 1 ISO per shipment
3. RTR required
4. Absorbent added during repackaging / overpacking activity.

Prepared by: Rodney O. Bell
Date Prepared: 08/10/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW RESIDUES AND OTHER MATERIALS

PBS 11 | Duration
WBS 1.1.M | Fiscal Year:
Control Account: MMME

ProjectLLW Project NPDS Residues
CampaignNPDS1008 - RESIDUES

Charge Number: MMME1
CAM: Dave Wood

Quantity Basis (containers and volume): approximately 1,986 cu.ft. in 19 metal boxes

Containers for Off-site Shipment: 5
Total Containers minus ROBs: 19

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity v 2, 04/25/20	Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MILWRT/PIPFTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech Mhrs	QA (QAENG) Req'd	QA Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning	10		163	0.05	5	0.05	5	0	0	0	0	0	0	0.05	5	0.05	5	0	0	0	0	0	0	0	0	0.1	10	0.1	10	0.1	10	1	102	0.05	5	0.05	5	0	0	0	0	0	0
2. SA 0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection	2	41	146	3	74	1	25	0	0	0	0	0	0	0.5	12	1	25	0	0	0.05	1	0	0	0.2	5	0	0	0	0	0	0	0.1	2	0	0	0.05	1	0	0	0	0	0	0
Assumed Number of Samples/Visuals: 19																																											
4. Characterization	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. Container Movement			95																																								
Metal Boxes 19	1	26	95	2	21	2	21	3	31	0	0	0.2	2	0.5	5	1	10	0	0	0	0	0	0	0.05	1	0.05	1	0.05	1	0	0	0.1	1	0.2	2	0.05	1	0	0	0	0	0	0
Drums 0	0	0	0	2	0	2	0	3	0	0	0	0.2	0	0.5	0	1	0	0	0	0	0	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
6. Repackaging/Overpacking			249																																								
ISOs 0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes 19	4.75	66	249	2	95	1	48	0.1	5	0	0	0	0	0.5	24	1	48	0	0	0	0	0	0	0.2	10	0.05	2	0.05	2	0	0	0.1	5	0.2	10	0.05	2	0	0	0	0	0	0
Drums 0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
7. RTR			89																																								
ISOs 0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes 19	2	25	89	1	20	0.5	10	0.5	10	0	0	0	0	0.2	4	1	20	0	0	0	0	1	20	0	0	0.05	1	0.05	1	0	0	0.1	2	0	0	0.05	1	0	0	0	0	0	0
Drums 0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
8. Loading and Shipping			191																																								
ISOs 5	1.6	47	191	5	80	3	48	0.2	3	0	0	0.05	1	0.5	8	1	16	0	0	0	0	0	0	0	0	0.05	1	0.05	1	0	0	1.9	30	0.2	3	0.05	1	0	0	0	0	0	0
Metal Boxes 0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums 0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill					295		156		49		0		3		58		124		0		1		20		15		15		15		10		143		20		11		0		0		0

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	5	$2,000	$10,000
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	133	$9.68	$1,283
Normal Protective Clothing	change	72	$4.03	$289
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	5	$120	$600
Other Materials	each	5	$240	$1,200
NTS Truck Freight	shipment	5	$4,600	$23,000
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	5	$100	$500
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
WPRAP Processing (residues)	ton	0	$372	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	6,750	$8.69	$58,658
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY		
Total Manhours	934	
Total Labor		$32,150
Total Materials		$36,872
Total Subcontracts		$0
Total Burial		$58,658
Total Cost		$127,680
Total Cost minus burial		$69,022

All Costs are stated in FY01 Dollars

Comments and Assumptions:
1. Assumes boxes will be overpacked into ISOs (4 pack)
2. 1 ISO per shipment
3. RTR required
4. Absorbent added during repackaging / overpacking activity

Prepared by: Rodney O. Bell
Date Prepared: 08/10/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LIQUID MIXED WASTES

PBS: 11 Duration:
WBS: 1.1.M Fiscal Year:
Control Account: MMME

ProjectLLW NPDS RESIDUES
CampaignDecanted liquids to AWWT

Quantity Basis (containers and volume): approximately 199 gallons in 36 containers

Charge Number: MMME1
CAM: Dave Wood

Total Containers minus ROBs: 36

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Mhrs	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MRLWRT/PIPFTR) Req'd	Maintenance (MRLWRT/PIPFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech (LABTECH) Mhrs
1. Campaign Planning		10		166	0.05	5	0.05	5	0	0	0	0	0	0	0.05	5	0.05	5	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection Assumed Number of Samples/Visuals: 4		0	8	29	3	14	1	5	0	0	0	0	0	0	0.5	2	1	5	0	0	0.30	1
4. Characterization		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. Liquid Bulking	Drums	36	2.4	47	241	4	96	1	24	0	0	0	0	0.2	5	0.5	12	1	24	0	0	0
6. TSCA Shipping	Tanker	0	0	0	0	3	0	1	0	0	0	0	0	0.2	0	0.5	0	2.5	0	0	0	0
7. Container Movements				28																		
	ISOs	0	0	0	2	0	1	0	0.1	0	2	0	0	0	0.25	0	0.5	0	0	0	0	0
	Metal Boxes	0	0	0	2	0	1	0	0.1	0	2	0	0	0	0.25	0	0.5	0	0	0	0	0
	Drums	36	0.45	8	28	2	9	1	5	0.1	0	2	9	0	0	0.25	1	0.5	2	0	0	0
Total Manhours by Skill							124		38		0		9		5		21		36		0	

Activity	WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning	0	0	0	0	0.1	10	0.1	10	0.1	10	1	104	0.05	5	0.05	5	0	0	0	0	0	0
2. SSR	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection	0	0	0.2	1	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
4. Characterization	0	0	0	0	0	0	0	0	0	0	1.9	0	0	0	0	0	0	0	0	0	0	0
5. Liquid Bulking	0	0	1	24	0.05	1	0.05	1	0	0	2	48	0.2	5	0.05	1	0	0	0	0	0	0
6. TSCA Shipping	0	0	0.5	0	0.05	0	0.05	0	0	0	2	0	0.2	0	0	0	0	0	0	0	0	0
7. Container Movements																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0	0	0.2	1	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		0		25		12		12		10		152		11		7		0		0		0

MATERIALS	Unit	Quantity	Rate	Total
Full Anti-Cs	change	55	$9.68	$528
Normal Protective Clothing	change	8	$4.03	$32
3 Vehicles- Moves/Repack	day	0	$165	$74
Labeling/Misc.Materials	each	0	$240	$0
Freight to Oak Ridge	shipment	0	$2,000	$0

SUBCONTRACTS	Unit	Quantity	Rate	Total
Commercial Treatment	gallon	0	$10	$0
Offsite Lab Analysis	sample	0	$1,675	$0
Required TSCA Analysis	batch	0	$47,000	$0

Worksheet Summary		
Total Manhours	464	
Total Labor		$17,234
Total Materials		$634
Total Subcontracts		$0
Total Cost		$17,868
Total Cost minus burial		$17,868

All costs are stated in FY01 Dollars.

Comments and Assumptions:

1. Assumes the only requirement for LLW liquids is movement to AWWT.

Prepared by: Rodney O. Bell
Date Prepared: 08/10/2001

Control Team Review: _____

Project Review: _____

Comments

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW NON-COMPACTABLE TRASH DISPOSITION

PBS: 11
WBS: 1.1.M
Control Account: MMME

Duration:
Fiscal Year:

Project: LLW NPDS RESIDUES

Campaign: Prohibited Items

Quantity Basis (containers and volume): approximately 336 cu.ft. in 46 containers

Charge Number: MMME1
CAM: Dave Wood

Containers for Off-site Shipment: 3
Total Containers minus ROBs: 46

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MLWRIPPTR) Req'd	Maintenance (MLWRIPPTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech (LABTECH) Mhrs	WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) eq'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spl. (CLERK9) Req'd	Admin. Spl. (CLERK9) Mhrs
1. Campaign Planning		10		167	0.05	5	0.05	5	0	0	0	0	0	0	0.05	5	0.05	5	0	0	0	0	0	0	0.00	0	0.1	10	0.1	10	0.1	10	1	105	0.05	5	0.05	5	0	0	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
3. Trash Sorting				938																																								
ISOs	0	0	0	1	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	1	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	46	11.5	245	937	4	460	1	115	0.1	12	0	0	0.1	12	1	115	1	115	0	0	0	0	0	0	0.5	58	0.05	6	0.05	6	0	0	0.1	12	0.2	23	0.05	6	0	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																																												
ROBs	0	0	0	0	1	0	1	0	0.25	0	2	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0.1	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
5. Container Movements				21																																								
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	46	0.6	6	21	1	6	0.5	3	0.5	3	0	0	0	0	0.2	1	1	6	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	1	0	0	0.05	0	0	0	0	0	0	0
6. Loading and Shipping				39																																								
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	0.5	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	3	0.3	9	39	3	9	2	6	0	0	2	6	0.05	0	0.5	2	2	6	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	3	9	0.2	1	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						*480*		*129*		*15*		*6*		*12*		*123*		*132*		*0*		*1*		*0*		*58*		*17*		*17*		*10*		*126*		*29*		*11*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	3	$1,200	$3,600
Drums	each	0	$40	$0
Full Anti-Cs	change	245	$9.68	$2,371
Normal Protective Clothing	change	14	$4.03	$58
3 Vehicles for Moves	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$66
1 Vehicle for ROB Moves	day	0	$55	$0
Absorbent	each	3	$120	$360
Other Materials	each	3	$240	$720
NTS Truck Freight	shipment	1	$4,600	$4,600
Shoring	shipment	1	$100	$100
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	336	$8.69	$2,920

* Includes two warehouse attendants in Loading and Shipping

WORKSHEET SUMMARY		
Total Manhours	1,165	
Total Labor		**$39,131**
Total Materials		**$11,875**
Total Burial		**$2,920**
Total Cost		**$53,925**
Total Cost minus burial		**$51,005**

All costs are stated in FY01 Dollars

Comments and Assumptions

1. 50% of prohibited items to NTS

Prepared by: Rodney O. Bell
Date Prepared: 08/10/2001

Control Team Review:

Project Review:

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW RESIDUES AND OTHER MATERIALS

PBS: 11 — Duration
WBS: 1.1.M — Fiscal Year
Control Account: MMME

Project: LLW Project Residues to NTS (SEG) - MMME1
Campaign: SEG1003, Magnesium Fluoride

Charge Number: MMME1
CAM: Todd Clark

Quantity Basis (containers and volume): 153 cubic feet in 1 metal box and 6 drums

Containers for Off-site Shipment: 2
Total Containers minus ROBs: 7

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MELWRT/PIPFTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech Mhrs
1. Campaign Planning		2		34	0.05	1	0.05	1	0	0	0	0	0	0	0.1	2	0.1	2	0	0	0	0
2. SA	1	16		480	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection		1	15	54	3	27	1	9	0	0	0	0	0	0	0.5	5	1	9	0	0	0.1	1
Assumed Number of Samples/Visuals:	7																					
4. Characterization		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping				0																		
Metal Boxes	0	0	0	0	2	0	2	0	3	0	0	0	0.2	0	0.5	0	1	0	0	0	0	0
Drums	0	0	0	0	2	0	2	0	3	0	0	0	0.2	0	0.5	0	1	0	0	0	0	0
6. Repackaging/Overpacking				29																		
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0
Boxes	1	0.3	3	13	2	5	1	3	0.1	0	0	0	0	0	0.5	1	1	3	0	0	0	0
Drums	6	0.3	4	16	2	6	1	3	0.1	0	0	0	0	0	0.5	2	1	3	0	0	0	0
7. Container Movements				0																		
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
8. Loading and Shipping				26																		
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	0.5	0	1	0	0	0	0	0
Metal Boxes	2	0.20	6	26	3	6	2	4	0	0	2	4	0.05	0	0.5	1	2	4	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0
Total Manhours by Skill						45		20		1		4		0		10		21		0		1

Activity		WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning		0	0	0	0	0.1	2	0.1	2	0.1	2	1	20	0.05	1	0.05	1	0	0	0	0	0	0
2. SA	1	0	0	0	0	2	320	0	0	0	0	1	160	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection		0	0	0.2	2	0	0	0	0	0	0	0.1	1	0	0	0.05	0	0	0	0	0	0	0
Assumed Number of Samples/Visuals:	7																						
4. Characterization		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping																							
Metal Boxes	0	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
6. Repackaging/Overpacking																							
ISOs	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	1	0	0	0.2	1	0.05	0	0.05	0	0	0	0.1	0	0.2	1	0.05	0	0	0	0	0	0	0
Drums	6	0	0	0.2	1	0.05	0	0.05	0	0	0	0.1	0	0.2	1	0.05	0	0	0	0	0	0	0
7. Container Movements																							
ISOs	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
8. Loading and Shipping																							
ISOs	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	2	0	0	0	0	0.05	0	0.05	0	0	0	3	6	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill			0		3		322		2		2		187		3		2		0		0		0

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	2	$1,200	$2,400
Drums	each	0	$40	$0
Full Anti-Cs	change	23	$9.68	$219
Normal Protective Clothing	change	6	$4.03	$23
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	2	$120	$240
Other Materials	each	2	$240	$480
NTS Truck Freight	shipment	1	$4,600	$4,600
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	1	$100	$100
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
WPRAP Processing (residues)	ton	0	$372	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	224	$8.69	$1,947
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY		
Total Manhours	623	
Total Labor		$26,593
Total Materials		$8,062
Total Subcontracts		$0
Total Burial		$1,947
Total Cost		$36,601
Total Cost minus burial		$34,655

All Costs are stated in FY01 Dollars

Comments and Assumptions:

1. Assumes SEG1003 inventory is fixed at 1 metal box and 6 drums
2. Assumes decanted liquid will be 4 gallons
3. Assumes 1 metal box and 6 drums will be repackaged into 2 metal boxes
4. Absorbent added during repackaging
5. Assumes 100% of containers will require RTR
6. Prohibited items will be 2% of total internal volume or 3 cubic feet

Prepared by: Rodney O. Bell
Date Prepared: 08/10/2001

Control Team Review:

Project Review:

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW NON-COMPACTABLE TRASH DISPOSITION

PBS: 11
WBS: 1.1.M.E
Control Account: MMME

Duration:
Fiscal Year:

Project: LLW Project Residues to NTS (SEG) - MMME1

Campaign: Prohibited Items from SEG Campaign

Quantity Basis (containers and volume): 3 cubic feet in 1 drum

Charge Number: MMME1
CAM: Todd Clark

Containers for Off-site Shipment: 0.0
Total Containers minus ROBs: 1

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) eq'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) eq'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) eq'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) eq'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MLWRTAPFTR) eq'd	Maintenance (MLWRTAPFTR) Mhrs	Supervisor (OPRMGR) eq'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) eq'd	NTS Comp. (QACENG) Mhrs	Lab Tech (LABTECH) eq'd	Lab Tech (LABTECH) Mhrs	WAO (WSTENG) eq'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) eq'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) eq'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) eq'd	Safety Eng. (S&HENG) Mhrs	Safety Anal. (S&HENG) eq'd	Safety Anal. (S&HENG) Mhrs	Waste Eng. (WSTENG) eq'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) eq'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) eq'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) eq'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) eq'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) eq'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning		0		0	0.05	0	0.05	0	0	0	0	0	0	0	0.1	0	0.1	0	0	0	0	0	0	0	0	0	0.1	0	0.1	0	0.1	0	1	0	0.05	0	0.05	0	0	0	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
3. Trash Sorting				21																																							
ISOs	0	0	0	1	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	1	1	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	1	0.25	5	20	4	10	1	3	0.1	0	0	0	0.1	0	1	3	1	3	0	0	0	0	0	0	0.5	1	0.05	0	0.05	0	0	0	0.1	0	0.2	1	0.05	0	0	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																																											
ROBs	0.0	0	0	0	1	0	1	0	0.25	0	2	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0.1	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
5. Container Movements				3																																							
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	1	0.10	1	3	1	1	0.5	1	0.5	1	0	0	0	0	0.2	0	1	1	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
6. Loading and Shipping				0																																							
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	0.5	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						*11*		*3*		*1*		*0*		*0*		*3*		*4*		*0*		*1*		*0*		*1*		*0*		*0*		*0*		*0*		*1*		*0*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$5,000	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	5	$9.68	$52
Normal Protective Clothing	change	1	$4.03	$4
3 Vehicles for Moves	day	0	$165	$17
4 Vehicles for Loading	day	0	$220	$0
1 Vehicle for ROB Moves	day	0	$55	$0
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	0	$4,600	$0
Shoring	shipment	0	$100	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$10.80	$0

* Includes two warehouse attendants in Loading and Shipping

WORKSHEET SUMMARY		
Total Manhours	25	
Total Labor		$785
Total Materials		$72
Total Burial		$0
Total Cost		$856
Total Cost minus burial		$856

All costs are stated in FY01 Dollars

Comments and Assumptions

1. Assumes 3 cubic feet from SEG1003
2. Assumes cost of container, transportation, and burial will be included in anotehr campaign

Prepared by: Rodney O. Bell
Date Prepared: 08/10/2001

Control Team Review:

Project Review:

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LIQUID MIXED WASTES

PBS: 11
WBS: 1.1.M
Control Account: MMME

Duration:
Fiscal Year:

Project: LLW Project Residues to NTS (SEG) - MMME1
Campaign: Decanted Liquids from SEG1003 to AWWT

Quantity Basis (containers and volume): Approximately 4 gallons

Charge Number: MMME1
CAM: Todd Clark

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Total Containers minus ROBs: 0

Activity		Days	PPE Count	Total Mhrs	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MEWRT/PPFTR) Req'd	Maintenance (MEWRT/PPFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech (LABTECH) Mhrs	WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal. (S&HENG) Req'd	Safety Anal. (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning		0		0	0.05	0	0.05	0	0	0	0	0	0	0	0.1	0	0.1	0	0	0	0	0	0	0	0	0	0.1	0	0.1	0	0.1	0	1	0	0.05	0	0.05	0	0	0	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection Assumed Number of Samples/Visuals: 0		0	0	1	3	0	1	0	0	0	0	0	0	0	0.5	0	1	0	0	0	1	1	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
4. Characterization		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. Liquid Bulking																																												
Drums	1	0.1	2	10	4	4	1	1	0	0	0	0	0.2	0	0.5	1	1	1	0	0	0	0	0	0	1	1	0.05	0	0.05	0	0	0	2	2	0.2	0	0.05	0	0	0	0	0	0	0
6. TSCA Shipping																																												
Tanker	0	0	1	6	3	2	1	1	0	0	0	0	0.2	0	0.5	0	2.5	2	0	0	0	0	0	0	0.5	0	0.05	0	0.05	0	0	0	2	1	0.2	0	0	0	0	0	0	0	0	0
7. Container Movements				6																																								
ISOs	0	0	0	0	2	0	1	0	0.1	0	2	0	0	0	0.25	0	0.5	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	2	0	1	0	0.1	0	2	0	0	0	0.25	0	0.5	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	1	0.1	2	6	2	2	1	1	0.1	0	2	2	0	0	0.25	0	0.5	1	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						8		3		0		2		0		1		3		0		1		0		1		0		0		0		3		1		0		0		0		0

MATERIALS	Unit	Quantity	Rate	Total
Full Anti-Cs	change	2	$9.68	$19
Normal Protective Clothing	change	3	$4.03	$12
3 Vehicles- Moves/Repack	day	0	$165	$0
Labeling/Misc.Materials	each	0	$240	$0
Freight to Oak Ridge	shipment	0	$2,000	$0

SUBCONTRACTS	Unit	Quantity	Rate	Total
Commercial Treatment	gallon	0	$10	$0
Offsite Lab Analysis	sample	0	$1,675	$0
Required TSCA Analysis	batch	0	$47,000	$0

Worksheet Summary		
Total Manhours	23	
Total Labor		**$753**
Total Materials		**$31**
Total Subcontracts		**$0**
Total Cost		**$785**
Total Cost minus burial		**$785**

All costs are stated in FY01 Dollars.

Comments and Assumptions:
1. Assumes the only requirement for LLW liquids is movement to AWWT.
2. Due to small quantity assumes container will be paid for in another campaign.

Prepared by: Rodney O. Bell
Date Prepared: 08/10/2001

Control Team Review:

Project Review:

Comments

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW RESIDUES AND OTHER MATERIALS

PBS: 11
WBS: 1.1.M
Control Account: MMME

Duration:
Fiscal Year:

Project: LLW Project Residues to NTS (WPRP)
Campaign: WPRP1005, Residue Remainders

Quantity Basis (containers and volume): approximately 13,475 cu.ft. in 1,045 containers

Charge Number: MMME1
CAM: Todd Clark

Containers for Off-site Shipment: 27
Total Containers minus ROBs: 1,045

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only.

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MLWR1/RPFTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech Mhrs	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERK8) Req'd	Admin. Spt. Mhrs
1. Campaign Planning		24		495	0.05	12	0.05	12	0	0	0	0	0	0	0.1	24	0.1	24	0	0	0	0	0	0	0	0	0.1	24	0.1	24	0.5	118	1	236	0.05	12	0.05	12	0	0	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection		68	1,121	3987	3	2038	1	679	0	0	0	0	0	0	0.5	340	1	679	0	0	0.02	14	0	0	0.2	136	0	0	0	0	0	0	0.1	68	0	0	0.05	34	0	0	0	0	0	0
Assumed Number of Samples/Visuals:	1,045																																											
4. Characterization		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping				0																																								
Metal Boxes	0	0	0	0	2	0	2	0	3	0	0	0	0.2	0	0.5	0	1	0	0	0	0	0	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	2	0	2	0	3	0	0	0	0.2	0	0.5	0	1	0	0	0	0	0	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
6. Repackaging/Overpacking				3,300																																								
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	53	13.25	183	696	2	265	1	133	0.1	13	0	0	0	0	0.5	66	1	133	0	0	0	0	0	0	0.2	27	0.05	7	0.05	7	0	0	0.1	13	0.2	27	0.05	7	0	0	0	0	0	0
Drums	992	49.6	684	2604	2	992	1	496	0.1	50	0	0	0	0	0.5	248	1	496	0	0	0	0	0	0	0.2	99	0.05	25	0.05	25	0	0	0.1	50	0.2	99	0.05	25	0	0	0	0	0	0
7. Container Movements				504																																								
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	53	2.2	21	76	1	22	0.5	11	0.5	11	0	0	0	0	0.2	4	1	22	0	0	0	0	0	0	0	0	0.05	1	0.05	1	0	0	0.1	2	0	0	0.05	1	0	0	0	0	0	0
Drums	992	12.4	119	428	1	124	0.5	62	0.5	62	0	0	0	0	0.2	25	1	124	0	0	0	0	0	0	0	0	0.05	6	0.05	6	0	0	0.1	12	0	0	0.05	6	0	0	0	0	0	0
8. Loading and Shipping				1,044																																								
ISOs	27	9	255	1044	5	439	3	263	0.2	18	0	0	0.05	4	0.5	44	1	88	0	0	0	0	0	0	0	0	0.05	4	0.05	4	0	0	1.85	162	0.2	18	0.05	4	0	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						*3,891*		*1,656*		*153*		*0*		*4*		*751*		*1,565*		*0*		*14*		*0*		*262*		*67*		*67*		*118*		*544*		*155*		*89*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	27	$2,000	$54,000
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	1988	$9.68	$19,245
Normal Protective Clothing	change	396	$4.03	$1,594
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	27	$120	$3,240
Other Materials	each	27	$240	$6,480
NTS Truck Freight	shipment	27	$4,600	$124,200
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	27	$100	$2,700
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
WPRAP Processing (residues)	ton	0	$372	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	36,450	$8.69	$316,751
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY		
Total Manhours	9,334	
Total Labor		$301,945
Total Materials		$211,459
Total Subcontracts		$0
Total Burial		$316,751
Total Cost		$830,154
Total Cost minus burial		$513,404

All Costs are stated in FY01 Dollars

Comments and Assumptions:

1. Assumes boxes and drums will be overpacked in ISOs
2. Assumes decanted liquid will be 3,100 gallons
3. Absorbent added during repackaging
4. Assumes 100% of containers will require RTR
5. Prohibited items will be 2% of total internal volume or 270 cubic feet

Prepared by: Rodney O. Bell
Date Prepared: 08/10/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW NON-COMPACTABLE TRASH DISPOSITION

PBS: 11 | Duration
WBS: 1.1.M.E | Fiscal Year
Control Account: MMME

ProjectLLW Project Residues to NTS (WPRP)
CampaignProhibited Items from WPRP1005

Quantity Basis (containers and volume): approximately 270 cubic feet in 4 metal boxes

Charge Number: MMME1
CAM: Todd Clark

Containers for Off-site Shipment: 0.1
Total Containers minus ROBs: 4

1 day = 10 mhrs

Make Entries In Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) eq'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) eq'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) eq'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) eq'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MILWRIT/PIPFIT) eq'd	Maintenance (MILWRIT/PIPFIT) Mhrs	Supervisor (OPRMGR) eq'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) eq'd	NTS Comp. (QACENG) Mhrs	Lab Tech (LABTECH) eq'd	Lab Tech (LABTECH) Mhrs	WAO (WSTENG) eq'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) eq'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) eq'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) eq'd	Safety Eng. (S&HENG) Mhrs	Safety Anal. (S&HENG) eq'd	Safety Anal. (S&HENG) Mhrs	Waste Eng. (WSTENG) eq'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) eq'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) eq'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) eq'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) eq'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) eq'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning		0		0	0.05	0	0.05	0	0	0	0	0	0	0	0.1	0	0.1	0	0	0	0	0	0	0	0	0	0.1	0	0.1	0	0.5	0	1	0	0.05	0	0.05	0	0	0	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
3. Trash Sorting				221																																								
ISOs	0	0	0	1	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	1	1	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	4	2.7	58	220	4	108	1	27	0.1	3	0	0	0.1	3	1	27	1	27	0	0	0	0	0	0	0.5	14	0.05	1	0.05	1	0	0	0.1	3	0.2	5	0.05	1	0	0	0	0	0	0
Drums	0	0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																																												
ROBs	0	0	0	0	1	0	1	0	0.25	0	2	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0.1	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
5. Container Movements				6																																								
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	4	0.17	2	6	1	2	0.5	1	0.5	1	0	0	0	0	0.2	0	1	2	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
6. Loading and Shipping				0																																								
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	0.5	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						*110*		*28*		*4*		*0*		*3*		*27*		*29*		*0*		*1*		*0*		*14*		*1*		*1*		*0*		*3*		*5*		*1*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	58	$9.68	$557
Normal Protective Clothing	change	2	$4.03	$7
3 Vehicles for Moves	day	0	$165	$28
4 Vehicles for Loading	day	0	$220	$0
1 Vehicle for ROB Moves	day	0	$55	$0
Absorbent	each	0	$120	$12
Other Materials	each	0	$240	$24
NTS Truck Freight	shipment	0	$4,600	$0
Shoring	shipment	0	$100	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$10.80	$0

* Includes two warehouse attendants in Loading and Shipping

WORKSHEET SUMMARY		
Total Manhours	227	
Total Labor		**$7,169**
Total Materials		**$627**
Total Burial		**$0**
Total Cost		**$7,796**
Total Cost minus burial		**$7,796**

All costs are stated in FY01 Dollars

Comments and Assumptions

1. Assumes 267 cubic feet from WPRAP1005
2. Assumes cost of container, transportation, and burial will be included in another campaign

Prepared by: Rodney O. Bell
Date Prepared: 08/10/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LIQUID MIXED WASTES

PBS: 11
WBS: 1.1.M
Control Account: MMME

Duration:
Fiscal Year:

Project: LLW Project Residues to NTS (WPRP)
Campaign: Decanted Liquids from WPRAP1005

Quantity Basis (containers and volume): Approximately 3,100 gallons in 56 drums to AWWT

Charge Number: MMME1
CAM: Todd Clark

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Total Containers minus ROBs: 56

Activity		Days	PPE Count	Total Mhrs	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MILWRT/PPFTR) Req'd	Maintenance (MILWRT/PPFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech (LABTECH) Mhrs
1. Campaign Planning		2		42	0.05	1	0.05	1	0	0	0	0	0	0	0.1	2	0.1	2	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection		1	12	45	3	22	1	7	0	0	0	0	0	0	0.5	4	1	7	0	0	0.2	1
Assumed Number of Samples/Visuals	6																					
4. Characterization		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. Liquid Bulking																						
Drums	56	3.7	72	372	4	148	1	37	0	0	0	0	0.2	7	0.5	19	1	37	0	0	0	0
6. TSCA Shipping																						
Tanker	0	0	0	0	3	0	1	0	0	0	0	0	0.2	0	0.5	0	2.5	0	0	0	0	0
7. Container Movements				43																		
ISOs	0	0	0	0	2	0	1	0	0.1	0	2	0	0	0	0.25	0	0.5	0	0	0	0	0
Metal Boxes	0	0	0	0	2	0	1	0	0.1	0	2	0	0	0	0.25	0	0.5	0	0	0	0	0
Drums	56	0.7	12	43	2	14	1	7	0.1	1	2	14	0	0	0.25	2	0.5	4	0	0	0	0
Total Manhours by Skill						*185*		*52*		*1*		*14*		*7*		*26*		*50*		*0*		*1*

Activity	WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal. (S&HENG) Req'd	Safety Anal. (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning	0	0	0	0	0.1	2	0.1	2	0.5	10	1	20	0.05	1	0.05	1	0	0	0	0	0	0
2. SSR	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection	0	0	0.2	1	0.05	0	0.05	0	0	0	0.1	1	0	0	0.05	0	0	0	0	0	0	0
4. Characterization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. Liquid Bulking																						
Drums	0	0	1	37	0.05	2	0.05	2	0	0	2	74	0.2	7	0.05	2	0	0	0	0	0	0
6. TSCA Shipping																						
Tanker	0	0	0.5	0	0.05	0	0.05	0	0	0	2	0	0.2	0	0	0	0	0	0	0	0	0
7. Container Movements																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0	0	0.2	1	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		*0*		*38*		*5*		*5*		*10*		*95*		*10*		*4*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
Full Anti-Cs	change	84	$9.68	$815
Normal Protective Clothing	change	12	$4.03	$50
3 Vehicles- Moves/Repack	day	0	$165	$0
Labeling/Misc.Materials	each	0	$240	$0
Freight to Oak Ridge	shipment	0	$2,000	$0

SUBCONTRACTS	Unit	Quantity	Rate	Total
Commercial Treatment	gallon	0	$10	$0
Offsite Lab Analysis	sample	0	$1,675	$0
Required TSCA Analysis	batch	0	$47,000	$0

Worksheet Summary		
Total Manhours	502	
Total Labor		**$17,018**
Total Materials		**$864**
Total Subcontracts		**$0**
Total Cost		**$17,882**
Total Cost minus burial		**$17,882**

All costs are stated in FY01 Dollars.

Comments and Assumptions:
1. Assumes the only requirement for LLW liquids is movement to AWWT.
2. Decant liquids will be 3,100 gallons

Prepared by: Rodney O. Bell
Date Prepared: 08/10/2001

Control Team Review:

Project Review:

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW RESIDUES AND OTHER MATERIALS

PBS: 11 Duration
WBS: 1.1.M.E Fiscal Year:
Control Account: MMME

Project: LLW Project Residues to NTS (Copper)-MMME1
Campaign: RCU1001, Shredded Copper

Quantity Basis (containers and volume): 1,313 external cubic feet in 1 metal box and 151 drums

Charge Number: MMME1
CAM: Todd Clark

Containers for Off-site Shipment: 5 1 day = 10 mhrs Make Entries in Yellow Shaded Areas Only
Total Containers minus ROBs: 152

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MILWRT/PIPFTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech Mhrs	QA (QAENG) Req'd	QA Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning		12		196	0.05	6	0.05	6	0	0	0	0	0	0	0.1	12	0.1	12	0	0	0	0	0	0	0	0	0.1	12	0.1	12	0.1	12	1	115	0.05	6	0.05	6	0	0	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection		10	163	580	3	296	1	99	0	0	0	0	0	0	0.5	49	1	99	0	0	0.02	2	0	0	0.2	20	0	0	0	0	0	0	0.1	10	0	0	0.05	5	0	0	0	0	0	0
Assumed Number of Samples/Visuals:	152																																											
4. Characterization		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. RTR				275																																								
Metal Boxes	1	0.1	1	4	1	1	0.5	0	0	0	0	0	0.2	0	0.2	0	1	1	0	0	0	0	1	1	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	151	7	73	272	1	65	0.5	33	0	0	0	0	0.2	13	0.2	13	1	65	0	0	0	0	1	65	0	0	0.05	3	0.05	3	0	0	0.1	7	0	0	0.05	3	0	0	0	0	0	0
6. Repackaging/Overpacking				412																																								
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	1	0.25	3	13	2	5	1	3	0.1	0	0	0	0	0	0.5	1	1	3	0	0	0	0	0	0	0.2	1	0.05	0	0.05	0	0	0	0.1	0	0.2	1	0.05	0	0	0	0	0	0	0
Drums	151	7.6	105	399	2	152	1	76	0.1	8	0	0	0	0	0.5	38	1	76	0	0	0	0	0	0	0.2	15	0.05	4	0.05	4	0	0	0.1	8	0.2	15	0.05	4	0	0	0	0	0	0
7. Container Movements				87																																								
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	1	0.1	1	2	1	1	0.5	0	0.5	0	0	0	0	0	0.2	0	1	1	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	151	2.5	24	85	1	25	0.5	12	0.5	12	0	0	0	0	0.2	5	1	25	0	0	0	0	0	0	0	0	0.05	1	0.05	1	0	0	0.1	2	0	0	0.05	1	0	0	0	0	0	0
8. Loading and Shipping				201																																								
ISOs	5	1.7	49	201	5	85	3	51	0.2	3	0	0	0.05	1	0.5	9	1	17	0	0	0	0	0	0	0	0	0.05	1	0.05	1	0	0	1.75	30	0.2	3	0.05	1	0	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						*636*		*280*		*24*		*0*		*14*		*127*		*297*		*0*		*2*		*66*		*35*		*21*		*21*		*12*		*172*		*28*		*20*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	5	$2,000	$10,000
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	79	$9.68	$765
Normal Protective Clothing	change	74	$4.03	$296
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	5	$120	$600
Other Materials	each	5	$240	$1,200
NTS Truck Freight	shipment	5	$4,600	$23,000
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	5	$100	$500
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
WPRAP Processing (residues)	ton	0	$372	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	6,750	$8.69	$58,658
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY		
Total Manhours	1,751	
Total Labor		$58,958
Total Materials		$36,361
Total Subcontracts		$0
Total Burial		$58,658
Total Cost		$153,977
Total Cost minus burial		$95,319

All Costs are stated in FY01 Dollars

Comments and Assumptions:

1. RTR required for 100% of containers
2. Repackaging/overpacking includes addition of absorbent.
3. Metal Box and drums will be overpacked into ISOs.
4. Based on weight restrictions, assumes 36 drums per ISO.
5. Assumes inventory of RCU1001 is fixed at 1 metal box and 151 drums
6. Decant liquids will be 280 gallons
7. Prohibited items will be 2% of total internal volume
8. 3 metal boxes from RCU1002 will be shipped in ISOs purchased for this campaign

Prepared by: Rodney O. Bell
Date Prepared: 08/10/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW RESIDUES AND OTHER MATERIALS

PBS: 11
WBS: 1.1.M
Control Account: MMME

Duration:
Fiscal Year:

ProjectLLW Project Residues to NTS (Copper)-MMME1
CampaignRCU1002, Copper Ingots

Quantity Basis (containers and volume): 4,689 external cubic feet in 19 metal boxes and 2 ISOs

Charge Number: MMME1
CAM: Todd Clark

Containers for Off-site Shipment: 6
Total Containers minus ROBs: 21

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MR,WRT/PIPFTR) Req'd	Maintenance (MR,WRT/PIPFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech (LABTECH) Mhrs	QA (QAENG) Req'd	QA (QAENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal. (S&HENG) Req'd	Safety Anal. (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning		10		174	0.05	5	0.05	5	0	0	0	0	0	0	0.1	10	0.1	10	0	0	0	0	0	0	0	0	0.1	10	0.1	10	0.1	10	1	102	0.05	5	0.05	5	0	0	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection Assumed Number of Samples/Visuals:	21	1	23	81	3	41	1	14	0	0	0	0	0	0	0.5	7	1	14	0	0	0.05	1	0	0	0.2	3	0	0	0	0	0	0	0.1	1	0	0	0.05	1	0	0	0	0	0	0
4. Characterization		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. RTR				99																																								
Metal Boxes	27	3	28	99	1	25	0.5	13	0	0	0	0	0	0	0.2	5	1	25	0	0	0	0	1	25	0	0	0.05	1	0.05	1	0	0	0.1	3	0	0	0.05	1	0	0	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
6. Repackaging/Overpacking				357																																								
ISOs	2	2	28	105	2	40	1	20	0.1	2	0	0	0	0	0.5	10	1	20	0	0	0	0	0	0	0.2	4	0.05	1	0.05	1	0	0	0.1	2	0.2	4	0.05	1	0	0	0	0	0	0
Boxes	19	4.8	66	252	2	96	1	48	0.1	5	0	0	0	0	0.5	24	1	48	0	0	0	0	0	0	0.2	10	0.05	2	0.05	2	0	0	0.1	5	0.2	10	0.05	2	0	0	0	0	0	0
Drums	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
7. Container Movements				51																																								
ISOs	2	0.7	6	23	1	7	0.5	3	0.5	3	0	0	0	0	0.2	1	1	7	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	1	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	19	0.8	8	28	1	8	0.5	4	0.5	4	0	0	0	0	0.2	2	1	8	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	1	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
8. Loading and Shipping				226																																								
ISOs	6	2	57	226	5	98	3	59	0.2	4	0	0	0.05	1	0.5	10	1	20	0	0	0	0	0	0	0	0	0.05	1	0.05	1	0	0	1.55	30	0.2	4	0.05	1	0	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						*319*		*165*		*18*		*0*		*1*		*69*		*151*		*0*		*1*		*25*		*16*		*17*		*17*		*10*		*144*		*23*		*12*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	6	$2,000	$12,000
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	144	$9.68	$1,396
Normal Protective Clothing	change	71	$4.03	$286
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	6	$120	$720
Other Materials	each	6	$240	$1,440
NTS Truck Freight	shipment	6	$4,600	$27,600
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	6	$100	$600
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
WPRAP Processing (residues)	ton	0	$372	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	8,100	$8.69	$70,389
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY		
Total Manhours	988	
Total Labor		$34,168
Total Materials		$44,041
Total Subcontracts		$0
Total Burial		$70,389
Total Cost		$148,598
Total Cost minus burial		$78,209

All Costs are stated in FY01 Dollars

Comments and Assumptions:

1. Assumes boxes will be overpacked into ISOs. 3 boxes will be shipped with RCU1001
2. 1 ISO per shipment
3. RTR Required for 100% of containers
4. Absorbent added during repackaging/overpacking activity.
5. Assumes inventory of RCU1002 is fixed at 2 ISOs and 19 metal boxes
6. Decanted liquids will be 300 gallons
7. Prohibited items will be 2% of total internal volume.
8. For RTR calculation 1 ISO = 4 metal boxes

Prepared by: Rodney O. Bell
Date Prepared: 8/10/2001

Control Team Review:

Project Review:

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW NON-COMPACTABLE TRASH DISPOSITION

PBS: 11
WBS: 1.1.M.E
Control Account: MMME

Duration:
Fiscal Year:

ProjectLLW Project Residues to NTS
CampaignProhibited Items from Copper Campaigns

Quantity Basis (containers and volume): approximately 120 cubic feet in 2 metal boxes

Charge Number: MMME1
CAM: Todd Clark

Containers for Off-site Shipment: 0
Total Containers minus ROBs: 2

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) eq'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) eq'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) eq'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) eq'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MILWRT/PIPFTR) eq'd	Maintenance (MILWRT/PIPFTR) Mhrs	Supervisor (OPRMGR) eq'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) eq'd	NTS Comp. (QACENG) Mhrs	Lab Tech (LABTECH) eq'd	Lab Tech (LABTECH) Mhrs
1. Campaign Planning		2		34	0.05	1	0.05	1	0	0	0	0	0	0	0.1	2	0.1	2	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Trash Sorting				107																		
ISOs	0	0	0	1	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0.1	1
Metal Boxes	2	1.3	28	106	4	52	1	13	0.1	1	0	0	0.1	1	1	1.1	1	1.1	0	0	0	0
Drums	0	0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																						
ROBs	0	0	0	0	1	0	1	0	0.25	0	2	0	0	0	0.2	0	1	0	0	0	0	0
5. Container Movements				0																		
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
6. Loading and Shipping				30																		
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	0.5	0	1	0	0	0	0	0
Metal Boxes	1	0.3	9	30	3	9	2	6	0	0	2	6	0.05	0	0.5	2	2	6	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0
Total Manhours by Skill						62		20		1		6		1		17		21		0		1

Activity	WAO (WSTENG) eq'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) eq'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) eq'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) eq'd	Safety Eng. (S&HENG) Mhrs	Safety Anal. (S&HENG) eq'd	Safety Anal. (S&HENG) Mhrs	Waste Eng. (WSTENG) eq'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) eq'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) eq'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) eq'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) eq'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) eq'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning	0	0	0	0	0.1	2	0.1	2	0.1	2	1	20	0.05	1	0.05	1	0	0	0	0	0	0
2. SSR	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
3. Trash Sorting																						
ISOs	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0.5	7	0.05	1	0.05	1	0	0	0.1	1	0.2	3	0.05	1	0	0	0	0	0	0
Drums	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																						
ROBs	0	0	0.1	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
5. Container Movements																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
6. Loading and Shipping																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	1	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		0		7		3		3		2		22		4		2		0		0		0

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	1	$1,200	$1,200
Drums	each	0	$40	$0
Full Anti-Cs	change	28	$9.68	$268
Normal Protective Clothing	change	9	$4.03	$34
3 Vehicles for Moves	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$66
1 Vehicle for ROB Moves	day	0	$55	$0
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	0	$4,600	$0
Shoring	shipment	0	$100	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$10.80	$0

* Includes two warehouse attendants in Loading and Shipping

WORKSHEET SUMMARY		
Total Manhours	171	
Total Labor		**$5,791**
Total Materials		**$1,568**
Total Burial		**$0**
Total Cost		**$7,360**
Total Cost minus burial		**$7,360**

All costs are stated in FY01 Dollars

Comments and Assumptions

1. Assumes:
   a. 26 cubic feet from RCU1001
   b. 94 cubic feet drom RCU1002
2. Assumes prohibited items will be repackaged into ISOs
3. Assumes 50% of reworked prohibited items will meet the OSDF WAC
4. Due to small quantity, assumes container, transportation, and burial will be part of another trash campaign.

Prepared by: Rodney O. Bell
Date Prepared: 08/10/2001

Control Team Review:

Project Review:

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LIQUID MIXED WASTES

PBS: 11
WBS: 1.1.M
Control Account: MMME

Duration:
Fiscal Year:

Project: LLW Project Residues to NTS (Copper)-MMME1
Campaign: Decanted Liquids from Copper Campaigns to AWWT
Quantity Basis (containers and volume): Approximately 580 gallons in 11drums

Charge Number: MMME1
CAM: Todd Clark

Total Containers minus ROBs: 11

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Mhrs	Hazwat (HAZWAT) eq'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) eq'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) eq'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) eq'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MLWRT/PIPFTR) eq'd	Maintenance (MLWRT/PIPFTR) Mhrs	Supervisor (OPRMGR) eq'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) eq'd	NTS Comp. (QACENG) Mhrs	Lab Tech (LABTECH) eq'd	Lab Tech (LABTECH) Mhrs	WAO (WSTENG) eq'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) eq'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) eq'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) eq'd	Safety Eng. (S&HENG) Mhrs	Safety Anal. (S&HENG) eq'd	Safety Anal. (S&HENG) Mhrs	Waste Eng. (WSTENG) eq'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) eq'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) eq'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) eq'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) eq'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) eq'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning		2		34	0.05	1	0.05	1	0	0	0	0	0	0	0.1	2	0.1	2	0	0	0	0	0	0	0	0	0.1	2	0.1	2	0.1	2	1	20	0.05	1	0.05	1	0	0	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection Assumed Number of Samples/Visuals: 1		0	2	9	3	4	1	1	0	0	0	0	0	0	0.5	1	1	1	0	0	0.5	1	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
4. Characterization		5	0	95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.9	95	0	0	0	0	0	0	0	0	0	0
5. Liquid Bulking																																												
Drums	11	0.7	14	73	4	29	1	7	0	0	0	0	0.2	1	0.5	4	1	7	0	0	0	0	0	0	1	7	0.05	0	0.05	0	0	0	2	15	0.2	1	0.05	0	0	0	0	0	0	0
6. TSCA Shipping																																												
Tanker	0	0	0	0	3	0	1	0	0	0	0	0	0.2	0	0.5	0	2.5	0	0	0	0	0	0	0	0.5	0	0.05	0	0.05	0	0	0	2	0	0.2	0	0	0	0	0	0	0	0	0
7. Container Movements				9																																								
ISOs	0	0	0	0	2	0	1	0	0.1	0	2	0	0	0	0.25	0	0.5	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	2	0	1	0	0.1	0	2	0	0	0	0.25	0	0.5	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	11	0.14	2	9	2	3	1	1	0.1	0	2	3	0	0	0.25	0	0.5	1	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						***37***		***11***		***0***		***3***		***1***		***7***		***11***		***0***		***1***		***0***		***8***		***3***		***3***		***2***		***130***		***3***		***2***		***0***		***0***		***0***

MATERIALS	Unit	Quantity	Rate	Total
Full Anti-Cs	change	17	$9.68	$161
Normal Protective Clothing	change	2	$4.03	$10
3 Vehicles- Moves/Repack	day	0	$165	$0
Labeling/Misc.Materials	each	0	$240	$0
Freight to Oak Ridge	shipment	0	$2,000	$0

SUBCONTRACTS	Unit	Quantity	Rate	Total
Commercial Treatment	gallon	0	$10	$0
Offsite Lab Analysis	sample	0	$1,675	$0
Required TSCA Analysis	batch	0	$47,000	$0

Worksheet Summary		
Total Manhours	220	
Total Labor		**$8,898**
Total Materials		**$171**
Total Subcontracts		**$0**
Total Cost		**$9,069**
Total Cost minus burial		**$9,069**

All costs are stated in FY01 Dollars.

Comments and Assumptions:
1. Assumes the only requirement for LLW liquids is movement to AWWT.
2. Assumes:
   a. 280 gallons from RCU1001
   b. 300 gallons from RCU1002

Prepared by: Rodney O. Bell
Date Prepared: 08/10/2001

Control Team Review: _____

Project Review: _____

Comments

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW RESIDUES AND OTHER MATERIALS

PBS: 11 | Duration:
WBS: 1.1.M | Fiscal Year:
Control Account: MMME

Project: LLW Project Residues to NTS (Silo Residues) - MMME1
Campaign: SILO1003, Silo Residues

Quantity Basis (containers and volume): 96 external cubic feet in 12 drums

Charge Number: MMME1
CAM: Todd Clark

Containers for Off-site Shipment: 0
Total Containers minus ROBs: 12

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MRWRT/RPFTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech Mhrs
1. Campaign Planning		10		213	0.05	5	0.05	5	0	0	0	0	0	0	0.1	10	0.1	10	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection		1	13	47	3	23	1	8	0	0	0	0	0	0	0.5	4	1	8	0	0	0.1	1
Assumed Number of Samples/Visuals:	12																					
4. Characterization		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping				0																		
Metal Boxes	0	0	0	0	2	0	2	0	3	0	0	0	0.2	0	0.5	0	1	0	0	0	0	0
Drums	0	0	0	0	2	0	2	0	3	0	0	0	0.2	0	0.5	0	1	0	0	0	0	0
6. Repackaging/Overpacking				32																		
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0
Boxes	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0
Drums	12	0.6	8	32	2	12	1	6	0.1	1	0	0	0	0	0.5	3	1	6	0	0	0	0
7. Container Movements				5																		
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Drums	12	0.15	1	5	1	2	0.5	1	0.5	1	0	0	0	0	0.2	0	1	2	0	0	0	0
8. Loading and Shipping				20																		
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	0.5	0	1	0	0	0	0	0
Metal Boxes	2	0.20	6	20	3	6	2	4	0	0	2	4	0.05	0	0.5	1	2	4	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0
Total Manhours by Skill						48		24		1		4		0		18		29		0		1

Activity	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning	0	0	0	0	0.1	10	0.1	10	0.5	51	1	101	0.05	5	0.05	5	0	0	0	0	0	0
2. SSR	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection	0	0	0.2	2	0	0	0	0	0	0	0.1	1	0	0	0.05	0	0	0	0	0	0	0
4. Characterization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping																						
Metal Boxes	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
6. Repackaging/Overpacking																						
ISOs	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.2	1	0.05	0	0.05	0	0	0	0.1	1	0.2	1	0.05	0	0	0	0	0	0	0
7. Container Movements																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
8. Loading and Shipping																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		0		3		11		11		51		103		7		6		0		0		0

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	2	$1,200	$2,400
Drums	each	0	$40	$0
Full Anti-Cs	change	21	$9.68	$205
Normal Protective Clothing	change	7	$4.03	$29
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	0	$4,600	$0
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	0	$100	$0
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
WPRAP Processing (residues)	ton	0	$372	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$8.69	$0
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY		
Total Manhours	316	
Total Labor		**$13,045**
Total Materials		**$2,634**
Total Subcontracts		**$0**
Total Burial		**$0**
Total Cost		**$15,679**
Total Cost minus burial		**$15,679**

All Costs are stated in FY01 Dollars

Comments and Assumptions:

1. Assumes inventory for SILO1003 is fixed at 12 drums
2. Assumes drums will be overpacked into boxes.
3. Absorbent will be added during repackaging/overpacking
4. Decant liquids will be 7 gallons
5. Prohibited items will be 2% of total internal volume
6. Two metal boxes to be shipped in SILO1004 campaign

Prepared by: Rodney O. Bell
Date Prepared: 08/10/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW RESIDUES AND OTHER MATERIALS

PBS: 11
WBS: 1.1.M
Control Account: MMME

Duration:
Fiscal Year:

ProjectLLW Project Residues to NTS (Silo Residues) - MMME1
CampaignSILO1004, Silo Archive Samples

Quantity Basis (containers and volume): 2,967 external cubic feet in 2 ISO

Charge Number: MMME1
CAM: Todd Clark

Containers for Off-site Shipment: 3
Total Containers minus ROBs: 35

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity	Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MILWRT/PIPFT) Req'd	Maintenance (MILWRT/PIPFT) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech (LABTECH) Mhrs
1. Campaign Planning	10		217	0.05	5	0.05	5	0	0	0	0	0	0	0.1	10	0.1	10	0	0	0	0
2. SSR 0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection Assumed Number of Samples/Visuals: 35	2	38	135	3	68	1	23	0	0	0	0	0	0	0.5	11	1	21	0	0	0.1	2
4. Characterization	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping			0																		
Metal Boxes 0	0	0	0	2	0	2	0	3	0	0	0	0.2	0	0.5	0	1	0	0	0	0	0
Drums 0	0	0	0	2	0	2	0	3	0	0	0	0.2	0	0.5	0	1	0	0	0	0	0
6. Repackaging/Overpacking			192																		
ISOs 2	2	28	105	2	40	1	20	0.1	2	0	0	0	0	0.5	10	1	20	0	0	0	0
Boxes 0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0
Drums 33	1.7	23	87	2	33	1	17	0.1	2	0	0	0	0	0.5	8	1	17	0	0	0	0
7. Container Movements			71																		
ISOs 2	0.7	6	23	1	7	0.5	3	0.5	3	0	0	0	0	0.2	1	1	7	0	0	0	0
Metal Boxes 33	1.4	13	48	1	14	0.5	7	0.5	7	0	0	0	0	0.2	3	1	14	0	0	0	0
Drums 0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
8. Loading and Shipping			116																		
ISOs 3	1	28	116	5	49	3	29	0.2	2	0	0	0.05	0	0.5	5	1	10	0	0	0	0
Metal Boxes 0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0
Drums 0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0
Total Manhours by Skill					*216*		*104*		*16*		*0*		*0*		*49*		*100*		*0*		*2*

Activity	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning	0	0	0	0	0.1	10	0.1	10	0.5	52	1	104	0.05	5	0.05	5	0	0	0	0	0	0
2. SSR 0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection Assumed Number of Samples/Visuals: 35	0	0	0.2	5	0	0	0	0	0	0	0.1	2	0	0	0.05	1	0	0	0	0	0	0
4. Characterization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping																						
Metal Boxes 0	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums 0	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
6. Repackaging/Overpacking																						
ISOs 2	0	0	0.2	4	0.05	1	0.05	1	0	0	0.1	2	0.2	4	0.05	1	0	0	0	0	0	0
Boxes 0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums 33	0	0	0.2	3	0.05	1	0.05	1	0	0	0.1	2	0.2	3	0.05	1	0	0	0	0	0	0
7. Container Movements																						
ISOs 2	0	0	0	0	0.05	0	0.05	0	0	0	0.1	1	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes 33	0	0	0	0	0.05	1	0.05	1	0	0	0.1	1	0	0	0.05	1	0	0	0	0	0	0
Drums 0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
8. Loading and Shipping																						
ISOs 3	0	0	0	0	0.05	0	0.05	0	0	0	1.8	18	0.2	2	0.05	0	0	0	0	0	0	0
Metal Boxes 0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums 0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		*0*		*12*		*14*		*14*		*52*		*129*		*14*		*10*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	1	$2,000	$2,000
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	88	$9.68	$851
Normal Protective Clothing	change	48	$4.03	$194
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	3	$120	$360
Other Materials	each	3	$240	$720
NTS Truck Freight	shipment	3	$4,600	$13,800
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	3	$100	$300
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
WPRAP Processing (residues)	ton	0	$372	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	4,050	$8.69	$35,195
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY		
Total Manhours	732	
Total Labor		**$26,412**
Total Materials		**$18,225**
Total Subcontracts		**$0**
Total Burial		**$35,195**
Total Cost		**$79,832**
Total Cost minus burial		**$44,638**

All Costs are stated in FY01 Dollars

Comments and Assumptions:

1. Assumes inventory for SILO1004 is fixed at 2 ISOs and 33 drums
2. Assumes ISOs will be repackaged and drums will be overpacked into one ISO.
3. Absorbent will be added during repackaging/overpacking
4. Decant liquids will be 23 gallons
5. Prohibited items will be 2% of total internal volume or 44 cubic feet
6. Silo 1003 2 metal boxes to be included with this shipment

Prepared by: Rodney O. Bell
Date Prepared: 08/10/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW NON-COMPACTABLE TRASH DISPOSITION

PBS: 11
WBS: 1.1 M E
Control Account: MMME

Duration:
Fiscal Year:

Project: LLW Project Residues to NTS (Silo Residues) - MMME1

Campaign: Prohibited Items from Silo Campaigns

Quantity Basis (containers and volume): 61 cubic feet in 1 metal box

Charge Number: MMME1
CAM: Todd Clark

Containers for Off site Shipment: 0
Total Containers minus ROBs: 1

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) eq'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) eq'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) eq'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) eq'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MILWRT/PIPFTR) eq'd	Maintenance (MILWRT/PIPFTR) Mhrs	Supervisor (OPRMGR) eq'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) eq'd	NTS Comp. (QACENG) Mhrs	Lab Tech (LABTECH) eq'd	Lab Tech (LABTECH) Mhrs
1. Campaign Planning		1		21	0.05	1	0.05	1	0	0	0	0	0	0	0.1	1	0.1	1	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Trash Sorting				50																		
ISOs	0	0	0	1	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	1	1
Metal Boxes	1	0.6	13	49	4	24	1	6	0.1	1	0	0	0.1	1	1	6	1	6	0	0	0	0
Drums	0	0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																						
ROBs	0	0	3	12	1	2	1	2	0.25	1	2	4	0	0	0.2	0	1	2	0	0	0	0
5. Container Movements				3																		
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Metal Boxes	1	0.1	1	3	1	1	0.5	1	0.5	1	0	0	0	0	0.2	0	1	1	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
6. Loading and Shipping				20																		
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	0.5	0	1	0	0	0	0	0
Metal Boxes	1	0.1	3	10	3	3	2	2	0	0	2	2	0.05	0	0.5	1	2	2	0	0	0	0
Drums	4	0.1	3	10	3	3	2	2	0	0	2	2	0.05	0	0.5	1	2	2	0	0	0	0
Total Manhours by Skill						34		13		2		8		1		9		14		0		1

Activity	WAO (WSTENG) eq'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) eq'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) eq'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) eq'd	Safety Eng. (S&HENG) Mhrs	Safety Anal. (S&HENG) eq'd	Safety Anal. (S&HENG) Mhrs	Waste Eng. (WSTENG) eq'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) eq'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) eq'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) eq'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) eq'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) eq'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning	0	0	0	0	0.1	1	0.1	1	0.5	5	1	10	0.05	1	0.05	1	0	0	0	0	0	0
2. SSR	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
3. Trash Sorting																						
ISOs	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0.5	3	0.05	0	0.05	0	0	0	0.1	1	0.2	1	0.05	0	0	0	0	0	0	0
Drums	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																						
ROBs	0	0	0.1	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
5. Container Movements																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
6. Loading and Shipping																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		0		3		2		2		5		11		3		1		0		0		0

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	13	$9.68	$124
Normal Protective Clothing	change	10	$4.03	$40
3 Vehicles for Moves	day	0	$165	$17
4 Vehicles for Loading	day	0	$220	$44
1 Vehicle for ROB Moves	day	0	$55	$11
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	0.1	$4,600	$460
Shoring	shipment	0	$100	$10
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	135	$10.80	$1,458

* Includes two warehouse attendants in Loading and Shipping

WORKSHEET SUMMARY		
Total Manhours	106	
Total Labor		$3,607
Total Materials		$705
Total Burial		$1,458
Total Cost		$5,770
Total Cost minus burial		$4,312

All costs are stated in FY01 Dollars

Comments and Assumptions

1. Assumes prohibited items will be packaged into metal box
2. Assumes 50% of reworked prohibited items will meet the OSDF WAC

Prepared by: Rodney O. Bell
Date Prepared: 08/10/2001

Control Team Review:

Project Review:

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LIQUID MIXED WASTES

PBS: 11
WBS: 1.1.M
Control Account: MMME

Duration:
Fiscal Year:

Project: LLW Project Residues to NTS (Silo Residues) - MMME1
Campaign: Decanted Liquids to AWWT

Quantity Basis (containers and volume): Approximately 30 gallons in 1 drums

Charge Number: MMME1
CAM: Todd Clark

Total Containers minus ROBs: 1

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Mhrs	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MLWRTIPPFTR) Req'd	Maintenance (MLWRTIPPFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech (LABTECH) Mhrs	WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning		1		21	0.05	1	0.05	1	0	0	0	0	0	0	0.1	1	0.1	1	0	0	0	0	0	0	0	0	0.1	1	0.1	1	0.5	5	1	10	0.05	1	0.05	1	0	0	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection Assumed Number of Samples/Visuals:	0	0	0	2	3	0	1	0	0	0	0	0	0	0	0.5	0	1	0	0	0	1	1	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
4. Characterization		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. Liquid Bulking Drums	1	0.1	2	10	4	4	1	1	0	0	0	0	0.2	0	0.5	1	1	1	0	0	0	0	0	0	1	1	0.05	0	0.05	0	0	0	2	2	0.2	0	0.05	0	0	0	0	0	0	0
6. TSCA Shipping Tanker	0	0	1	6	3	2	1	1	0	0	0	0	0.2	0	0.5	0	2.5	2	0	0	0	0	0	0	0.5	0	0.05	0	0.05	0	0	0	2	1	0.2	0	0	0	0	0	0	0	0	0
7. Container Movements				6																																								
ISOs	0	0	0	0	2	0	1	0	0.1	0	2	0	0	0	0.25	0	0.5	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	2	0	1	0	0.1	0	2	0	0	0	0.25	0	0.5	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	1	0.1	2	6	2	2	1	1	0.1	0	2	2	0	0	0.25	0	0.5	1	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						9		3		0		2		0		2		4		0		1		0		1		1		1		5		13		1		1		0		0		0

MATERIALS	Unit	Quantity	Rate	Total
Full Anti-Cs	change	2	$9.68	$21
Normal Protective Clothing	change	3	$4.03	$12
3 Vehicles- Moves/Repack	day	0	$165	$0
Labeling/Misc.Materials	each	0	$240	$0
Freight to Oak Ridge	shipment	0	$2,000	$0

SUBCONTRACTS	Unit	Quantity	Rate	Total
Commercial Treatment	gallon	0	$10	$0
Offsite Lab Analysis	sample	0	$1,675	$0
Required TSCA Analysis	batch	0	$47,000	$0

Worksheet Summary		
Total Manhours	45	
Total Labor		**$1,749**
Total Materials		**$33**
Total Subcontracts		**$0**
Total Cost		**$1,782**
Total Cost minus burial		**$1,782**

All costs are stated in FY01 Dollars.

Comments and Assumptions:
1. Assumes the only requirement for LLW liquids is movement to AWWT.

Prepared by: Rodney O. Bell
Date Prepared: 08/10/2001

Control Team Review: _____

Project Review: _____

Comments

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW RESIDUES AND OTHER MATERIALS

PBS: 11 | Duration:
WBS: 1.1.M | Fiscal Year:
Control Account: MMME

Project: LLW Project Residues to NTS (AWWT/TSCA Solids)
Campaign: AWWT / TSCA solids to NTS

Quantity Basis (containers and volume): approximately 1,080 cu.ft. in 135 containers

Charge Number: MMME1
CAM: Dave Wood

Containers for Off-site Shipment: 0
Total Containers minus ROBs: 135

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MLWRT/MPFTR) Req'd	Maintenance (MLWRT/MPFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech (LABTECH) Mhrs
1. Campaign Planning		11		304	0.02	2	0.02	2	0	0	0	0	0	0	0.02	2	0.02	2	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection		9	145	518	3	263	1	88	0	0	0	0	0	0	0.5	44	1	88	0	0	0.05	4
Assumed Number of Samples/Visuals:	135																					
4. Characterization		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping				0																		
Metal Boxes	0	0	0	0	2	0	2	0	3	0	0	0	0.2	0	0.5	0	1	0	0	0	0.05	0
Drums	0	0	0	0	2	0	2	0	3	0	0	0	0.2	0	0.5	0	1	0	0	0	0.05	0
6. Repackaging/Overpacking				360																		
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0.05	0
Boxes	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0.05	0
Drums	135	6.8	94	360	2	136	1	68	0.1	7	0	0	0	0	0.5	34	1	68	0	0	0.05	3
7. Container Movements				59																		
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Drums	135	1.7	16	59	1	17	0.5	9	0.5	9	0	0	0	0	0.2	3	1	17	0	0	0	0
8. Loading and Shipping				168																		
ISOs	4	1.3	38	168	5	65	3	39	0.2	3	0	0	0.05	1	0.5	7	1	13	1	13	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	2	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	2	0	0	0
Total Manhours by Skill						*484*		*206*		*18*		*0*		*1*		*90*		*188*		*13*		*8*

Activity	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning	0	0	0	0	0.5	57	0.5	57	0.5	57	1	114	0.05	6	0.05	6	0	0	0	0	0	0
2. SSR	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection	0	0	0.2	18	0	0	0	0	0	0	0.1	9	0	0	0.05	4	0	0	0	0	0	0
4. Characterization	0	0	0	0	0	0	0	0	0	0	1.9	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping																						
Metal Boxes	0.05	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0.05	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
6. Repackaging/Overpacking																						
ISOs	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.2	14	0.05	3	0.05	3	0	0	0.1	7	0.2	14	0.05	3	0	0	0	0	0	0
7. Container Movements																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.05	1	0.05	1	0	0	0.1	2	0	0	0.05	1	0	0	0	0	0	0
8. Loading and Shipping																						
ISOs	0	0	0	0	0.05	1	0.05	1	0	0	1.85	24	0.2	3	0.05	1	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		*0*		*31*		*62*		*62*		*57*		*155*		*22*		*15*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	4	$2,000	$8,000
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	239	$9.68	$2,310
Normal Protective Clothing	change	54	$4.03	$218
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	4	$4,600	$18,400
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	4	$100	$400
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
WPRAP Processing (residues)	ton	0	$372	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	5,400	$6.57	$35,478
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY

Total Manhours	1,409	
Total Labor		$49,652
Total Materials		$29,328
Total Subcontracts		$0
Total Burial		$35,478
Total Cost		$114,458
Total Cost minus burial		$78,980

All Costs are stated in FY01 Dollars

Comments and Assumptions:
1. 36 drums per ISO

Prepared by: Rodney O. Bell
Date Prepared: 08/10/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW ASBESTOS DISPOSITION

PBS 11 Duration:
WBS 1 1 M1 Fiscal Year:
Control Account:

Project: Waste Storage Uncharacterized Containers - MMME1
Campaign: LLW Asbestos

Quantity Basis (containers and volume): Approximately 3,000 cubic feet in 33 drums and 33 metal boxes

Charge Number:
CAM:

Containers for Off-site Shipment: 3 1 day = 10 mhrs Make Entries in Yellow Shaded Areas Only
Total Containers minus ROBs: 66

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maint. Craft* (MILWRT/PIPFTR) Req'd	Maint. Craft* (MILWRT/PIPFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech (LABTECH) Mhrs
1. Campaign Planning		11		255	0.05	5	0.05	5	0	0	0	0	0	0	0.1	11	0.1	11	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Asbestos Sorting				4,884																		
ISOs	0	0	0	0	5	0	2	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
Metal Boxes	66	43	1,158	4440	5	2145	2	858	0	0	0	0	0	0	1	429	1	429	0	0	0	0
Drums	66	4	116	444	5	215	2	86	0	0	0	0	0	0	1	43	1	43	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																						
ROBs	0	0	0	0	1	0	1	0	0.25	0	2	0	0	0	0.2	0	1	0	0	0	0	0
5. Container Movements				0																		
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
6. Loading and Shipping				101																		
ISOs	3	1	29	101	2	20	2	20	2	20	1	10	0.05	0	1	10	2	20	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0.3	0	2	0	0.05	0	1	0	2	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0.3	0	2	0	0.05	0	1	0	2	0	0	0	0	0
Total Manhours by Skill						*2,384*		*969*		*20*		*10*		*0*		*493*		*502*		*0*		*0*

Activity	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal. (S&HENG) Req'd	Safety Anal. Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Buyer (BUYCON) Req'd	Buyer Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning	0	0	0	0	0.1	11	0.1	11	0.5	54	1.25	136	0.05	5	0.05	5	0	0	0	0	0	0
2. SSR	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Asbestos Sorting																						
ISOs	0	0	1	0	0.00	0	0.00	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	1	429	0.00	0	0.00	0	0	0	0.1	43	0.2	86	0.05	21	0	0	0	0	0	0
Drums	0	0	1	43	0.00	0	0.00	0	0	0	0.1	4	0.2	9	0.05	2	0	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																						
ROBs	0	0	0.1	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
5. Container Movements																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
6. Loading and Shipping																						
ISOs	0	0	0	0	0	0	0	0	0	0	0.1	1	0.2	2	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0	0	0	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0	0	0	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		*0*		*472*		*11*		*11*		*54*		*184*		*102*		*30*		*0*		*0*		*0*

* Both skills are used fairly equally. Rate used is for a Millwright.

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	3	$2,000	$6,000
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	1274	$9.68	$12,334
Normal Protective Clothing	change	29	$4.03	$118
3 Vehicles for Moves	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
1 Vehicle for ROB Moves	day	0	$55	$0
Absorbent	each	3	$120	$360
Other Materials	each	3	$240	$720
NTS Truck Freight	shipment	0	$4,600	$0
Shoring	shipment	0	$100	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	4,050	$10.80	$43,740

WORKSHEET SUMMARY		
Total Manhours	5,241	
Total Labor		**$164,839**
Total Materials		**$19,531**
Total Burial		**$43,740**
Total Cost		**$228,110**
Total Cost minus burial		**$184,370**

All costs stated in FY01 Dollars

Comments and Asumptions:
1. Assumes Asbestos will require NTS disposal

Prepared by: Rodney O. Bell
Date Prepared: 08/13/2001

Control Team Review:

Project Review:

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW COMPACTABLE TRASH DISPOSITION

PBS: 11 Duration
WBS: 1.1.M. Fiscal Year
Control Account:

Project: Waste Storage Uncharacterized Containers - MMME1
Campaign:Compactable Trash

Quantity Basis (containers and volume): Approximately 3,000 cubic feet in 33 boxes and 33 drums

Charge Number:
CAM:

Containers for Off-site Shipment: 9 1 day = 10 mhrs **Make Entries In Yellow Shaded Areas Only**
Total Containers minus ROBs: 32

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor* (TRNLAB) Req'd	Tran. Labor* (TRNLAB) Mhrs	Maintenance (MILWRT/PIPFTR) Req'd	Maintenance (MILWRT/PIPFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	QA (QACENG) Req'd	QA (QACENG) Mhrs
1. Campaign Planning		10		186	0.05	5	0.05	5	0	0	0	0	0	0	0.1	10	0.1	10	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Trash Sorting/Compacting				2,265																		
ISOs	0	0	0	0	6	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0
Metal Boxes	33	21	586	2059	6	1287	1	215	0.1	21	0	0	0.1	21	1	215	1	215	0	0	0	0
Drums	33	2	59	206	6	129	1	21	0.1	2	0	0	0.1	2	1	21	1	21	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																						
ROBs	0	0	0	0	1	0	1	0	0.25	0	2	0	0	0	0.2	0	1	0	0	0	0	0
5. Container Movements				0																		
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
6. Loading and Shipping				63																		
ISOs	0	0	0	0	2	0	2	0	2	0	1	0	0.05	0	1	0	2	0	0	0	0	0
Metal Boxes	9	1	18	63	3	18	2	12	0.3	2	2	12	0.05	0	1	6	2	12	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0.3	0	2	0	0.05	0	1	0	2	0	0	0	0	0
Total Manhours by Skill						*1,438*		*253*		*25*		*12*		*24*		*252*		*258*		*0*		*0*

Activity	WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal. (S&HENG) Req'd	Safety Anal. (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning	0	0	0	0	0	0	0.1	10	0	0	1.25	129	0.05	5	0.1	10	0	0	0	0	0	0
2. SSR	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Trash Sorting/Compacting																						
ISOs	0	0	0.05	0	0.00	0	0.00	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0.05	11	0.00	0	0.00	0	0	0	0.1	21	0.2	43	0.05	11	0	0	0	0	0	0
Drums	0	0	0.05	1	0.00	0	0.00	0	0	0	0.1	2	0.2	4	0.05	1	0	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																						
ROBs	0	0	0.1	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
5. Container Movements																						
ISOs	0	0	0	0	0	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
6. Loading and Shipping																						
ISOs	0	0	0	0	0	0	0	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0	0	0	0	0	0	0.1	1	0.2	1	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0	0	0	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		*0*		*12*		*0*		*10*		*0*		*153*		*54*		*22*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$3,800	$0
Metal Boxes	each	9	$1,200	$10,800
Drums	each	0	$40	$0
Full Anti-Cs	change	644	$9.68	$6,235
Normal Protective Clothing	change	18	$4.03	$73
3 Vehicles for Moves	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
1 Vehicle for ROB Moves	day	0	$55	$0
Absorbent	each	9	$120	$1,080
Other Materials	each	9	$240	$2,160
NTS Truck Freight	shipment	2	$4,600	$9,200
Shoring	shipment	2	$100	$200
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	1,008	$10.80	$10,886

* Includes two warehouse attendants in Loading and Shipping

WORKSHEET SUMMARY		
Total Hours	2,513	
Total Labor		$80,247
Total Materials		$29,748
Total Burial		$10,886
Total Cost		$120,881
Total Cost		$109,995

All Costs stated in FY01 Dollars

Comments and Assumptions:
1. Assumes 50% of total trash volume (32 containers)
2. Assumes compaction ratio of 4:1

Prepared by: Rodney O. Bell
Date Prepared: 08/13/2001

Control Team Review:

Project Review:

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW NON-COMPACTABLE TRASH DISPOSITION

PBS: 11 Duration:
WBS: 1.1.M. Fiscal Year:
Control Account:

Project: Waste Storage Uncharacterized Containers - MMME1

Campaign: Disposition of Empty Containers

Quantity Basis (containers and volume): 350 empty boxes and 350 drums

Charge Number:
CAM:

Containers for Off-site Shipment: 0 1 day = 10 mhrs Make Entries in Yellow Shaded Areas Only
Total Containers minus ROBs: 0

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor* (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MLWRT/PPTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	QA (QACENG) Req'd	QA Mhrs
1. Campaign Planning		10		195	0.05	5	0.05	5	0	0	0	0	0	0	0.1	10	0.1	10	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Trash Sorting				0																		
ISOs	0	0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0
Metal Boxes	0	0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0
Drums	0	0	0	0	4	0	1	0	0.1	0	0	0	0.1	0	1	0	1	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																						
ROBs	6	1	18	67	1	11	1	11	0.25	3	2	22	0	0	0.2	2	1	11	0	0	0	0
5. Container Movements				0																		
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
6. Drum Crushing				1,822																		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Metal Boxes	350	23	485	1627	3	683	0	0	2	455	2	455	0.05	11	0.1	23	0	0	0	0	0	0
Drums	350	9	57	196	2	182	0	0	0	0	0	0	0.05	5	0.1	9	0	0	0	0	0	0
Total Manhours by Skill						*881*		*16*		*458*	*477*		*16*		*44*		*21*		*0*		*0*	

Activity	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal. (S&HENG) Req'd	Safety Anal. Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERK8) Req'd	Admin. Spt. Mhrs
1. Campaign Planning	0	0	0	0	0.1	10	0.1	10	0.1	10	1.25	125	0.05	5	0.05	5	0	0	0	0	0	0
2. SSR	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Trash Sorting																						
ISOs	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.5	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
4. ROB Movements (assumes round trip for ROBs)																						
ROBs	0	0	0.1	1	0.05	1	0.05	1	0	0	0.1	1	0.2	2	0.05	1	0	0	0	0	0	0
5. Container Movements																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
6. Drum Crushing																						
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Drums	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Manhours by Skill		*0*		*1*		*11*		*11*		*10*		*126*		*7*		*6*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	0	$9.68	$0
Normal Protective Clothing	change	560	$4.03	$2,257
3 Vehicles for Moves	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
1 Vehicle for ROB Moves	day	0	$55	$0
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	0	$4,600	$0
Shoring	shipment	0	$100	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$10.80	$0

* Includes two warehouse attendants in Loading and Shipping

WORKSHEET SUMMARY		
Total Manhours	2,084	
Total Labor		**$61,407**
Total Materials		**$2,257**
Total Burial		**$0**
Total Cost		**$63,664**
Total Cost minus burial		**$63,664**

All costs are stated in FY01 Dollars

Comments and Assumptions

1. Assumes all waste containers will be disposed of (350 drums and 350 boxes)
2. 1 crushed drum = 1 cubic foot and 1 sheared box = 10 cubic feet
3. Crew for drum shearing is the same as debris downsizing
4. Assumes crushed/sheared containers will meet the OSDF WAC

Prepared by: Rodney O. Bell
Date Prepared: 08/13/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR SOIL DISPOSITION

PBS: 11 Duration:
WBS: 1.1.M. Fiscal Year:
Control Account:
Charge Number:
CAM:

Project: Waste Storage Uncharacterized Containers - MMME1
Campaign LLW Soils

Quantity Basis (containers and volume): Approximately 1,200 cubic feet in 13 drums and 13 metal boxes

Containers for Off-site Shipment: 0
Total Containers minus ROBs: 26

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor* (TRNLAB) Req'd	Tran. Labor* (TRNLAB) Mhrs	Maintenance (MILWRT/PIPFT) Req'd	Maintenance (MILWRT/PIPFT) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech (LABTECH) Mhrs	WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning		10		200	0.05	5	0.05	5	0	0	0	0	0	0	0.1	10	0.1	10	0	0	0	0	0	0	0	0	0.1	10	0.1	10	0.1	10	1.25	128	0.05	5	0.05	5	0	0	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection Assumed Number of Samples/Visuals: 26		3	56	201	3	101	1	34	0	0	0	0	0	0	0.5	17	1	34	0	0	0.10	3	0	0	0.2	7	0	0	0	0	0	0	0.1	3	0	0	0.05	2	0	0	0	0	0	0
4. Characterization		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.9	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping				163																																								
Metal Boxes	13	1	31	111	2	24	2	24	3	36	0	0	0.2	2	0.5	6	1	12	0	0	0	0	0	0	0.05	1	0.05	1	0.05	1	0	0	0.1	1	0.2	2	0.05	1	0	0	0	0	0	0
Drums	13	1	14	52	2	11	2	11	3	17	0	0	0.2	1	0.5	3	1	6	0	0	0	0	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	1	0.2	1	0.05	0	0	0	0	0	0	0
6. Repackaging/Overpacking				0																																								
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0.2	0	0.5	0	1	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	0	0	0	0	2	0	1	0	0.1	0	0	0	0.2	0	0.5	0	1	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	2	0	1	0	0.1	0	0	0	0.2	0	0.5	0	1	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
7. ROB Movements (assumes round trip for ROBs)																																												
ROBs	0	0	0	0	1	0	1	0	0.25	0	2	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0.1	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
8. Container Movements				0																																								
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
9. Loading and Shipping				0																																								
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	0.5	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						*142*		*74*		*53*		*0*		*4*		*38*		*62*		*0*		*3*		*0*		*8*		*11*		*11*		*10*		*133*		*9*		*8*		*0*		*0*		*0*

* Includes two warehouse attendants in Loading and Shipping

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$3,800	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	101	$9.68	$977
Normal Protective Clothing	change	0	$4.03	$0
3 Vehicles-Moves Repack Dump	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
1 Vehicle for ROB Movements	day	0	$55	$0
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	0	$4,600	$0
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	0	$100	$0
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
WPRAP Processing (soils)	ton	0	$136	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$10.80	$0
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY

Total Hours	564	
Total Labor		**$20,164**
Total Materials		**$977**
Total Subcontracts		**$0**
Total Burial		**$0**
Total Cost		**$21,140**
Total Cost minus burial		**$21,140**

All costs are stated in FY01 Dollars

Comments and Assumptions:
1. Assumes soil will meet the WPRAP WAC

Prepared by: Rodney O. Bell
Date Prepared: 08/13/2001

Control Team Review:

Project Review:

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW RESIDUES AND OTHER MATERIALS

PBS: 11 Duration:
WBS: 1.1.M. Fiscal Year:
Control Account:
Charge Number:
CAM:

Project: Waste Storage Uncharacterized Containers - MMME1

Campaign: LLW Residues

Quantity Basis (containers and volume): Approximately 3,000 cibic feet in 33 drums and 33 metal boxes

Containers for Off-site Shipment: 0 1 day = 10 mhrs Make Entries in Yellow Shaded Areas Only
Total Containers minus ROBs: 66

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MILWRT/PIPFTR) Req'd	Maintenance Mhrs	Supervisor (MOPMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech Mhrs
1. Campaign Planning		11		240	0.05	5	0.05	5	0	0	0	0	0	0	0.05	5	0.05	5	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection		9	142	511	3	257	1	86	0	0	0	0	0	0	0.5	43	1	86	0	0	0.1	9
Assumed Number of Samples/Visuals:	66																					
4. Characterization		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping				0																		
Metal Boxes	0	0	0	0	2	0	2	0	3	0	0	0	0.2	0	0.5	0	1	0	0	0	0	0
Drums	0	0	0	0	2	0	2	0	3	0	0	0	0.2	0	0.5	0	1	0	0	0	0	0
6. Repackaging/Overpacking				626																		
ISOs	0	0	0	0	5	0	2	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
Boxes	33	4	116	442	5	215	2	86	0	0	0	0	0	0	1	43	1	43	0	0	0	0
Drums	33	2	48	184	5	89	2	36	0	0	0	0	0	0	1	18	1	18	0	0	.0	0
7. Container Movements				0																		
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
8. Loading and Shipping				426																		
ISOs	0	0	0	1	2	0	2	0	2	0	1	0	0.05	0	1	0	1	0	0	0	0	0
Metal Boxes	39	3	114	425	2	51	0	0	0	0	9	228	0.05	1	2	51	2	51	0	0	0	0
Drums	0	0	0	0	2	0	0	0	0	0	9	0	0.05	0	2	0	2	0	0	0	0	0
Total Manhours by Skill						*617*		*213*		*0*		*228*		*1*		*160*		*203*		*0*		*9*

Activity	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal. (S&HENG) Req'd	Safety Anal. Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKB) Req'd	Admin. Spt. Mhrs
1. Campaign Planning	0	0	0	0	0.1	11	0.1	11	0.5	53	1.25	133	0.05	5	0.05	5	0	0	0	0	0	0
2. SSR	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection	0	0	0.2	17	0	0	0	0	0	0	0.1	9	0	0	0.05	4	0	0	0	0	0	0
4. Characterization	0	0	0	0	0	0	0	0	0	0	1.9	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping																						
Metal Boxes	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
6. Repackaging/Overpacking																						
ISOs	0	0	1	0	0.00	0	0.00	0	0	0	0.1	0	0.2	0	0	0	0	0	0	0	0	0
Boxes	0	0	1	43	0.00	0	0.00	0	0	0	0.1	4	0.2	9	0	0	0	0	0	0	0	0
Drums	0	0	1	18	0.00	0	0.00	0	0	0	0.1	2	0.2	4	0	0	0	0	0	0	0	0
7. Container Movements																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
8. Loading and Shipping																						
ISOs	0	0	0	0	0	0	0	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0	0	0	0	0	0	1.45	37	0.2	5	0.05	1	0	0	0	0	0	0
Drums	0	0	0	0	0	0	0	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		*0*		*78*		*11*		*11*		*53*		*185*		*23*		*11*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	39	$1,200	$46,800
Drums	each	0	$40	$0
Full Anti-Cs	change	306	$9.68	$2,959
Normal Protective Clothing	change	114	$4.03	$460
3 Vehicles for Moxes Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	6	$4,600	$27,600
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	6	$100	$600
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
WPRAP Processing (residues)	ton	0	$372	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	4,032	$10.80	$43,546
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY		
Total Manhours	1,801	
Total Labor		**$58,724**
Total Materials		**$78,419**
Total Subcontracts		**$0**
Total Burial		**$43,546**
Total Cost		**$180,688**
Total Cost minus burial		**$137,142**

All Costs are stated in FY01 Dollars

Comments and Assumptions:
1. Assumes residues will require NTS disposal
2. Assumes drums will be overpacked into metal boxes (6 per box)

Prepared by: Rodney O. Bell
Date Prepared: 08/13/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LIQUID MIXED WASTES

PBS: 11
WBS: 1.1.M.
Control Account:

Duration:
Fiscal Year:

Charge Number:
CAM:

Project: Waste Storage Uncharacterized Containers - MMME1

Campaign: Liquid Waste Disposition

Quantity Basis (containers and volume): Approximately 2,400 gallons in 48 drums

Total Containers minus ROBs: 48

1 day = 10 mhrs

Make Entles In Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Mhrs	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MLWRT/PFFTR) Req'd	Maintenance (MLWRT/PFFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech (LABTECH) Mhrs	WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERK3) Req'd	Admin. Spt. (CLERK3) Mhrs
1. Campaign Planning		10		199	0.05	5	0.05	5	0	0	0	0	0	0	0.05	5	0.1	10	0	0	0	0	0	0	0	0	0.1	10	0.1	10	0.1	10	1.25	131	0.05	5	0.05	5	0	0	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection Assumed Number of Samples/Visuals: 48		6	103	378	3	187	1	62	0	0	0	0	0	0	0.5	31	1	62	0	0	0.1	6	0	0	0.2	12	0.05	3	0.05	3	0	0	0.1	6	0	0	0.05	3	0	0	0	0	0	0
4. Characterization		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.9	0	0	0	0	0	0	0	0	0	0	0
5. Liquid Bulking																																												
Drums	24	2	41	209	4	83	1	21	0	0	0	0	0.2	4	0.5	10	1	21	0	0	0	0	0	0	1	21	0.05	1	0.05	1	0	0	2	42	0.2	4	0.05	1	0	0	0	0	0	0
6. TSCA Loadout																																												
Tanker	0	1	31	147	3	44	1	15	0	0	0	0	0.2	3	0.5	7	2.5	37	0	0	0	0	0	0	0.5	7	0.05	1	0.05	1	0	0	2	29	0.2	3	0	0	0	0	0	0	0	0
7. Liquid Transfer				28																																								
	0	0	0	0		0		0		0		0		0		0		0		0		0		0	0	0		0		0		0		0		0		0		0		0		0
Metal Boxes	0	0	0	0	2	0	2	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	24	0	7	28	2	8	2	8	0	0	0	0	0	0	1	4	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0.2	1	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						*328*		*111*		*0*		*0*		*7*		*58*		*134*		*0*		*5*		*0*		*41*		*15*		*15*		*10*		*212*		*13*		*10*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
Full Anti-Cs	change	144	$9.68	$1,389
Normal Protective Clothing	change	38	$4.03	$153
3 Vehicles- Moves/Repack	day	0	$165	$64
Labeling/Misc.Materials	each	0	$240	$0
Freight to Oak Ridge	shipment	0	$2,000	$0

SUBCONTRACTS	Unit	Quantity	Rate	Total
Commercial Treatment	gallon	0	$10	$0
Offsite Lab Analysis	sample	0	$1,675	$0
Required TSCA Analysis	batch	0.33	$4,700	$1,551

Worksheet Summary		
Total Manhours	961	
Total Labor		**$33,550**
Total Materials		**$1,606**
Total Subcontracts		**$1,551**
Total Cost		**$36,708**
Total Cost minus burial		**$36,708**

All costs are stated in FY01 Dollars.

Comments and Assumptions:

1. Assumes 1, 200 gallons of aqueous liquids and 1,200 gallons of liquids requiring incineration

Prepared by: Rodney O. Bell
Date Prepared: 08/13/2001

Control Team Review: _____

Project Review: _____

Comments

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR ORGANIC WASTES

PBS: 11
WBS: 1.1.M.
Control Account:

Duration:
Fiscal Year:

Charge Number:
CAM:

Project: Waste Storage Uncharacterized Containers - MMME1

Campaign: Organic Waste Disposition

Quantity Basis (containers and volume): Approximately 4,900 cubic feet in 32 drums and 56 metal boxes

Containers for Off-site Shipment: 15
Total Containers minus ROBs: 88

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MLWRT/PPFTR) Req'd	Maintenance (MLWRT/PPFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	Lab Tech (Lab Tech) Req'd	Lab Tech (Lab Tech) Mhrs
1. Campaign Planning		30		555	0.05	15	0.05	15	0	0	0	0	0	0	0.05	15	0.05	15	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection		11	189	692	3	343	1	114	0	0	0	0	0	0	0.5	57	1	114	0	0	0.1	11
Assumed Number of Samples/Visuals:	88																					
4. Characterization		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. Repackaging/Overpacking				426																		
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0
Boxes	56	7	100	382	2	146	1	73	0.1	7	0	0	0	0	0.5	36	1	73	0	0	0	0
Drums	32	1	11	44	2	17	1	8	0.1	1	0	0	0	0	0.5	4	1	8	0	0	0	0
6. Container Movements				0																		
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
7. Loading and Shipping				544																		
ISOs	15	5	132	544	2	98	2	98	2	98	1	49	0.05	2	1	49	1	49	0	0	0	0
Metal Boxes	0	0	0	0	2	0	0	0	0	0	9	0	0.05	0	2	0	2	0	0	0	0	0
Drums	0	0	0	0	2	0	0	0	0	0	9	0	0.05	0	2	0	2	0	0	0	0	0
Total Manhours by Skill						*618*		*308*		*106*		*49*		*2*		*162*		*259*		*0*		*11*

Activity	WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning	0	0	0.00	0	0.05	15	0.1	30	0.1	30	1.25	375	0.05	15	0.1	30	0	0	0	0	0	0
2. SSR	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection	0	0	0.2	23	0.05	6	0.05	6	0	0	0.1	11	0	0	0.05	6	0	0	0	0	0	0
4. Characterization	0	0	0	0	0	0	0	0	0	0	1.9	0	0	0	0	0	0	0	0	0	0	0
5. Repackaging/Overpacking																						
ISOs	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	0	0	0.2	15	0.05	4	0.05	4	0	0	0.1	7	0.2	15	0.05	4	0	0	0	0	0	0
Drums	0	0	0.2	2	0.05	0	0.05	0	0	0	0.1	1	0.2	2	0.05	0	0	0	0	0	0	0
6. Container Movements																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
7. Loading and Shipping																						
ISOs	0	0	0	0	0	0	0	0	0	0	1.9	93	0.2	10	0	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0	0	0	0	0	0	0.1	0	0.2	0	0	0	0	0	0	0	0	0
Drums	0	0	0	0	0	0	0	0	0	0	0.1	0	0.2	0	0	0	0	0	0	0	0	0
Total Manhours by Skill		*0*		*39*		*25*		*40*		*30*		*487*		*41*		*40*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	301	$9.68	$2,911
Normal Protective Clothing	change	132	$4.03	$530
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	15	$120	$1,800
Other Materials	each	15	$240	$3,600
Truck Freight	shipment	23	$4,029	$92,667
Shoring	shipment	15	$100	$1,500
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	Sample	9	$1,675	$15,075
Organic Treatment	kilogram	180,800	$12	$2,169,600
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
Envirocare MW Fee	cu. ft.	4,900	$23	$112,700

WORKSHEET SUMMARY		
Total Manhours	2,217	
Total Labor		**$78,149**
Total Materials		**$103,008**
Total Treatment		**$2,184,675**
Total Burial		**$112,700**
Total Cost		**$2,478,532**
Total Cost minus burial		**$2,365,832**

All Costs are stated in FY01 Dollars

Comments and Assumptions

1. Assumes all organic wastes will be treated at an off-site location through Broad Spectrum.
2. Assumes inventory containers will be overpacked into ISOs for shipment
3. ISOs will be returned for reuse at 50% of original transportation cost (15 ISOs = 15 x1.5 = 22.5 or 23 shipments)
4. ISOs will be puchased as part of Organic Treatment Project
5. Assumes 9 samples will be sent for off-site analysis (10% of containers)

Prepared by: Rodney O. Bell
Date Prepared: 08/13/2001

Control Team Review:

Project Review:

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR INORGANIC WASTES

PBS: 11
WBS: 1.1.M.
Control Account:

Duration:
Fiscal Year:

Charge Number:
CAM:

Project: Waste Storage Uncharacterized Containers - MMME1

Campaign: Inorganic Waste Disposition

Quantity Basis (containers and volume): Approximately 4,900 cubic feet in 32 drums and 56 metal boxes

Containers for Off-site Shipment: 15 — 1 day = 10 mhrs — Make Entries in Yellow Shaded Areas Only
Total Containers minus ROBs: 88

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MLWRTPPFTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech Mhrs
1. Campaign Planning		11		212	0.05	5	0.05	5	0	0	0	0	0	0	0.1	11	0.1	11	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection		11	189	692	3	343	1	114	0	0	0	0	0	0	[illegible]	[illegible]	1	114	0	0	0.1	11
Assumed Number of Samples/Visuals:	88																					
4. Characterization		36		684	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. Repackaging/Overpacking				419																		
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0
Boxes	56	7	100	382	2	146	1	73	0.1	7	0	0	0	0	0.5	[illegible]	1	73	0	0	0	0
Drums	32	1	10	36	2	14	1	7	0.1	1	0	0	0	0	0.5	3	1	7	0	0	0	0
6. Container Movements				0																		
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
7. Loading and Shipping				683																		
ISOs	15	5	171	683	5	244	3	146	0.2	10	2	98	0.05	2	0.5	24	1	49	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0
Total Manhours by Skill						*752*		*346*		*18*		*98*		*2*		*132*		*254*		*0*		*11*

Activity	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning	0	0	0.00	0	0.1	11	0.1	11	0.1	11	1.25	136	0.05	5	0.05	5	0	0	0	0	0	0
2. SSR	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection	0	0	0.2	23	0.05	6	0.05	6	0	0	0.1	11	0	0	0.05	6	0	0	0	0	0	0
Assumed Number of Samples/Visuals:																						
4. Characterization	0	0	0	0	0	0	0	0	0	0	1.9	684	0	0	0	0	0	0	0	0	0	0
5. Repackaging/Overpacking																						
ISOs	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	0	0	0.2	15	0.05	4	0.05	4	0	0	0.1	7	0.2	15	0.05	4	0	0	0	0	0	0
Drums	0	0	0.2	1	0.05	0	0.05	0	0	0	0.1	1	0.2	1	0.05	0	0	0	0	0	0	0
6. Container Movements																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
7. Loading and Shipping																						
ISOs	0	0	0	0	0.05	2	0.05	2	0	0	1.9	93	0.2	10	0.05	2	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		*0*		*39*		*23*		*23*		*11*		*932*		*31*		*18*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$3,800	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	299	$9.68	$2,892
Normal Protective Clothing	change	171	$4.03	$690
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	15	$120	$1,800
Other Materials	each	15	$240	$3,600
Truck Freight	shipment	23	$4,029	$92,667
Shoring	shipment	15	$100	$1,500
SUBCONTRACTS	**Unit**	**Quantity**	**Rate**	**Total**
Inorganic Treatment	Kilogram	180,800	$12	$2,169,600
Lab Analysis	sample	88	$1,675	$147,400
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
Envirocare LLW Fee	cu. ft.	4,900	$10	$49,000

WORKSHEET SUMMARY

Total Manhours	2,689
Total Labor	**$97,267**
Total Materials	**$103,149**
Total Subcontracts	**$2,317,000**
Total Burial	**$49,000**
Total Cost	**$2,566,416**
Total Cost minus burial	**$2,517,416**

All costs are stated in FY01 Dollars

Comments and Assumptions:

1. Assumes all inorganic wastes will be treated at an off-site location through Broad Spectrum.
2. Assumes inventory containers will be overpacked into ISOs for shipment
3. ISOs will be returned for reuse at 50% of original transportation cost (15 ISOs = 15 x1.5 = 22.5 or 23 shipments)
4. ISOs will be puchased as part of Organic Treatment Project
5. Assumes 9 samples will be sent for off-site analysis (10% of containers)

Prepared by: Rodney O. Bell
Date Prepared: 08/13/2001

Control Team Review:

Project Review:

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR HAZARDOUS WASTES

PBS 11 | Duration
WBS 1.1.M.E | Fiscal Year
Control Account: MMME

Project: Waste Storage Uncharacterized Containers - MMME1

Campaign: Hazardous Waste Disposition

Charge Number: MMME1
CAM:

Quantity Basis (containers and volume): Approximately 16 cubic feet in 4 drums

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Total Containers minus ROBs: 4

Activity	Days	PPE Count	Total Manhours	Hazwat (HAZWAT) eq'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) eq'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) eq'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) eq'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MLWRTRPFTR) eq'd	Maintenance (MLWRTRPFTR) Mhrs	Supervisor (OPRMGR) eq'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) eq'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) eq'd	NTS Comp. (QACENG) Mhrs	Lab Tech (LABTECH) eq'd	Lab Tech (LABTECH) Mhrs
1. Campaign Planning	10		140	0.05	5	0.05	5	0	0	0	0	0	0	0.05	5	0.05	5	0	0	0	0
2. Sampling/Visual Inspection (Assumed Number of Samples/Visuals: 1)	0	2	10	3	4	1	1	1	1	0	0	0	0	0	0	1	1	0	0	0.1	1
3. Characterization	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4. RTR/NDA			4																		
ISOs 0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Metal Boxes 0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Drums 4	0	1	4	1	1	0.5	1	0.5	1	0	0	0	0	0.2	0	1	1	0	0	0	0
Total Manhours by Skill					10		7		2		0		0		5		7		0		1

Activity	WAO (WSTENG) eq'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) eq'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) eq'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) eq'd	Safety Eng. (S&HENG) Mhrs	Safety Anal. (S&HENG) eq'd	Safety Anal. (S&HENG) Mhrs	Waste Eng. (WSTENG) eq'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) eq'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) eq'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) eq'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) eq'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) eq'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning	0	0	0	0	0	0	0	0	0	0	1.00	100	0.1	10	0.1	10	0	0	0	0	0	0
2. Sampling/Visual Inspection	0	0	1	1	0	0	0	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
3. Characterization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4. RTR/NDA																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		0		1		0		0		0		100		10		10		0		0		0

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$3,800	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	2	$9.68	$23
Normal Protective Clothing	change	1	$4.03	$4

SUBCONTRACTS	Unit	Quantity	Rate	Total
Laboratory Analysis	sample	175	$1,675	$293,125

WORKSHEET SUMMARY		
Total Hours	154	
Total Labor		$6,518
Total Materials		$27
Total Subcontracts		$293,125
Total Cost		$299,670
Total Cost minus burial		$299,670

All costs stated in FY01 Dollars

Comments and Assumptions:

1. Assumes RTR of 700 containers and NDA of 350 containers.
2. Assumes 448 visual inspections
3. Assumes 175 samples for off-site analysis
4. Characterization costs on individual disposition sheets

Prepared by: Rodney O. Bell
Date Prepared: 08/13/2001

Control Team Review:

Project Review:

MMME2

RESIDUES DISPOSITION

09/07/2001
1:59 PM

PBS: OHFN11
WBS: 1.1.M.E
CTRL ACCT: MMME
CHARGE NO: MMME2
COMMENT NO: R1-F11-008

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: CRPNTR **CARPENTER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	80.0	22.0	28.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	80.0	102.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
Yr Total Cost:	2,478	717	967	0	0	0	0	0	0	0
Cum Total Cost:	2,478	3,195	4,162	4,162	4,162	4,162	4,162	4,162	4,162	4,162

Resource: HAZWAT **HAZWAT** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,407.0	604.0	2,152.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,407.0	2,011.0	4,163.0	4,163.0	4,163.0	4,163.0	4,163.0	4,163.0	4,163.0	4,163.0
Yr Total Cost:	40,508	18,303	69,074	0	0	0	0	0	0	0
Cum Total Cost:	40,508	58,811	127,885	127,885	127,885	127,885	127,885	127,885	127,885	127,885

Resource: HEOOPR **HEAVY EQUIP OPERATOR** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,818.0	435.0	795.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,818.0	2,253.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0	3,048.0
Yr Total Cost:	57,194	14,405	27,884	0	0	0	0	0	0	0
Cum Total Cost:	57,194	71,599	99,483	99,483	99,483	99,483	99,483	99,483	99,483	99,483

Resource: INHTEC **INDUST HYGIENIST TEC** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	136.0	92.0	325.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	136.0	228.0	553.0	553.0	553.0	553.0	553.0	553.0	553.0	553.0
Yr Total Cost:	5,126	3,650	13,657	0	0	0	0	0	0	0
Cum Total Cost:	5,126	8,776	22,432	22,432	22,432	22,432	22,432	22,432	22,432	22,432

INCLUDES ESCALATION COSTS

09/07/2001
1:59 PM

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

PBS: OHFN11
WBS: 1.1.M.E
CTRL ACCT: MMME
CHARGE NO: MMME2
COMMENT NO: R1-F11-008

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: LABTEC **LAB TECH** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	32.0	19.0	31.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	32.0	51.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0
Yr Total Cost:	889	556	960	0	0	0	0	0	0	0
Cum Total Cost:	889	1,445	2,406	2,406	2,406	2,406	2,406	2,406	2,406	2,406

Resource: MAT300 **MATERIAL OBJCLASS300** **EOC:** MATERIAL
Res Dept: 951 **Overtime:** PPE **Class:** MAT

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Units:	15,527.0	6,502.0	16,674.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Units:	15,527.0	22,029.0	38,703.0	38,703.0	38,703.0	38,703.0	38,703.0	38,703.0	38,703.0	38,703.0
Yr Total Cost:	15,527	6,678	17,587	0	0	0	0	0	0	0
Cum Total Cost:	15,527	22,205	39,791	39,791	39,791	39,791	39,791	39,791	39,791	39,791

Resource: MPCREP **MATL PROP CTRL REP** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	127.0	40.0	214.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	127.0	167.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0
Yr Total Cost:	4,105	1,361	7,711	0	0	0	0	0	0	0
Cum Total Cost:	4,105	5,465	13,177	13,177	13,177	13,177	13,177	13,177	13,177	13,177

Resource: MVOOPR **MOTOR VEHICLE OPER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,098.0	429.0	1,225.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,098.0	1,527.0	2,752.0	2,752.0	2,752.0	2,752.0	2,752.0	2,752.0	2,752.0	2,752.0
Yr Total Cost:	31,688	13,032	39,415	0	0	0	0	0	0	0
Cum Total Cost:	31,688	44,720	84,136	84,136	84,136	84,136	84,136	84,136	84,136	84,136

INCLUDES ESCALATION COSTS

09/07/2001
1:59 PM

PBS: OHFN11
WBS: 1.1.M.E
CTRL ACCT: MMME
CHARGE NO: MMME2
COMMENT NO: R1-F11-008

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: PJSMGR **PROJECT SUPPORT MGR** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,014.0	388.0	1,187.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,014.0	1,402.0	2,589.0	2,589.0	2,589.0	2,589.0	2,589.0	2,589.0	2,589.0	2,589.0
Yr Total Cost:	46,360	18,672	60,505	0	0	0	0	0	0	0
Cum Total Cost:	46,360	65,032	125,537	125,537	125,537	125,537	125,537	125,537	125,537	125,537

Resource: RADENG **RAD ENGINEER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	72.0	39.0	101.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	72.0	111.0	212.0	212.0	212.0	212.0	212.0	212.0	212.0	212.0
Yr Total Cost:	3,398	1,938	5,315	0	0	0	0	0	0	0
Cum Total Cost:	3,398	5,336	10,651	10,651	10,651	10,651	10,651	10,651	10,651	10,651

Resource: RADTEC **RAD TECH** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	833.0	425.0	1,210.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	833.0	1,258.0	2,468.0	2,468.0	2,468.0	2,468.0	2,468.0	2,468.0	2,468.0	2,468.0
Yr Total Cost:	28,389	15,246	45,975	0	0	0	0	0	0	0
Cum Total Cost:	28,389	43,634	89,609	89,609	89,609	89,609	89,609	89,609	89,609	89,609

Resource: S&HENG **SAFETY ENGINEER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	99.0	43.0	159.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	99.0	142.0	301.0	301.0	301.0	301.0	301.0	301.0	301.0	301.0
Yr Total Cost:	4,921	2,250	8,812	0	0	0	0	0	0	0
Cum Total Cost:	4,921	7,171	15,983	15,983	15,983	15,983	15,983	15,983	15,983	15,983

INCLUDES ESCALATION COSTS

09/07/2001
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Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

PBS: OHFN11
WBS: 1.1.M.E
CTRL ACCT: MMME
CHARGE NO: MMME2
COMMENT NO: R1-F11-008

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: SERVSUB **SUBS** **EOC:** SUBCONTRACTORS
Res Dept: 951 **Overtime:** EQPT **Class:** SUB

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Units:	36,150.0	12,050.0	36,150.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Units:	36,150.0	48,200.0	84,350.0	84,350.0	84,350.0	84,350.0	84,350.0	84,350.0	84,350.0	84,350.0
Yr Total Cost:	36,150	12,375	38,128	0	0	0	0	0	0	0
Cum Total Cost:	36,150	48,525	86,654	86,654	86,654	86,654	86,654	86,654	86,654	86,654

Resource: TPSREP **TECH/PROG SUPT REP** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	76.0	45.0	126.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	76.0	121.0	247.0	247.0	247.0	247.0	247.0	247.0	247.0	247.0
Yr Total Cost:	3,949	2,461	7,299	0	0	0	0	0	0	0
Cum Total Cost:	3,949	6,410	13,709	13,709	13,709	13,709	13,709	13,709	13,709	13,709

Resource: WSTENG **WASTE ENGINEER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	696.9	769.1	724.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	696.9	1,466.0	2,190.0	2,190.0	2,190.0	2,190.0	2,190.0	2,190.0	2,190.0	2,190.0
Yr Total Cost:	35,563	41,308	41,193	0	0	0	0	0	0	0
Cum Total Cost:	35,563	76,871	118,064	118,064	118,064	118,064	118,064	118,064	118,064	118,064

GRAND TOTALS:

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	7,488.9	3,350.1	8,277.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	7,488.9	10,839.0	19,116.0	19,116.0	19,116.0	19,116.0	19,116.0	19,116.0	19,116.0	19,116.0
Yr Total Cost:	316,245	152,951	384,482	0	0	0	0	0	0	0
Cum Total Cost:	316,245	469,196	853,678	853,678	853,678	853,678	853,678	853,678	853,678	853,678

CAM_____ CONTROL TEAM_____

INCLUDES ESCALATION COSTS

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW RESIDUES AND OTHER MATERIALS

PBS: 11 | Duration:
WBS: 1.1.M.E | Fiscal Year:
Control Account: MMME

Project: Low Level Waste-SP7-MMME2
Campaign: RFD1000 - AWWT Sump Cake

Quantity Basis (containers and volume): approximately 23,095 cu.ft. in 221 containers

Charge Number: MMME2
CAM: Dave Wood

Containers for Off-site Shipment: 0 | 1 day = 10 mhrs | Make Entries in Yellow Shaded Areas Only
Total Containers minus ROBs: 221

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MILWRT/PIPFTR) Req'd	Maintenance (MILWRT/PIPFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech (LABTECH) Mhrs
1. Campaign Planning		12		157	0.05	2	0.05	2	0	0	0	0	0	0	0.10	2	0.02	2	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection		11	20	110	0	0	0	0	0	0	0	0	0	0	0	0	0.6	66	0	0	0.05	6
Assumed Number of Samples/Visuals:	221																					
4. Characterization		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping				1,133																		
Metal Boxes	221	11	317	1,133	2	220	2	220	4	440	0	0	0.2	22	1	110	0.6	66	0	0	0	0
Drums	0	0	0	0	2	0	2	0	3	0	0	0	0.2	0	1	0	0.6	0	0	0	0	0
6. Repackaging/Overpacking				0																		
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	1	0	0.6	0	0	0	0	0
Boxes	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	1	0	0.6	0	0	0	0	0
Drums	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	1	0	0.6	0	0	0	0	0
7. Container Movements				299																		
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0
Metal Boxes	221	9.2	83	299	1	92	0.5	46	0.5	46	0	0	0	0	0.4	37	0.6	55	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0
8. Loading and Shipping				0																		
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	1	0	0.6	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1	0	0	0	0	0
Total Manhours by Skill						*314*		*268*		*486*		*0*		*22*		*149*		*189*		*0*		*6*

Activity	WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning	0	0	0	0	0.05	6	0.05	6	0.05	6	1	122	0.05	6	0.02	2	0	0	0	0	0	0
2. SSR	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection	0	0	0.2	22	0	0	0	0	0	0	0.1	11	0	0	0.05	6	0	0	0	0	0	0
4. Characterization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping																						
Metal Boxes	0	0	0.05	6	0.05	6	0.05	6	0	0	0.1	11	0.2	22	0.05	6	0	0	0	0	0	0
Drums	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
6. Repackaging/Overpacking																						
ISOs	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
7. Container Movements																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	5	0.05	5	0	0	0.1	9	0	0	0.05	5	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
8. Loading and Shipping																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		*0*		*28*		*16*		*16*		*6*		*153*		*28*		*18*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	337	$9.68	$3,258
Normal Protective Clothing	change	83	$4.03	$334
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	0	$4,600	$0
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	0	$100	$0
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
Box turner	lease	1	$6,025	$6,025
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$10.80	$0
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY

Total Manhours	1,699	
Total Labor		$56,072
Total Materials		$3,592
Total Subcontracts		$6,025
Total Burial		$0
Total Cost		$65,689
Total Cost minus burial		$65,689

All Costs are stated in FY01 Dollars

Comments and Assumptions:
1. Charge Code- MBWPA, MLLR2
2. Liners not included in estimate
3. Metal boxes recycled
4. Visually inspect 25 boxes or drums per day.
5. Dump 20 metal boxes per day

Prepared by: Rodney O. Bell
Date Prepared: 08/13/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW RESIDUES AND OTHER MATERIALS

PBS: 11
WBS: 1.1.M.E
Control Account: MMME

Duration:
Fiscal Year:

Project: Low Level Waste-SP7-MMME2
Campaign: RFD1101- Plant 5 Sludge (D&D)

Quantity Basis (containers and volume): approximately 27,540 cu.ft. in 23 ROB

Charge Number: MMME2
CAM: Dave Wood

Containers for Off-site Shipment: 0
Total Containers minus ROBs: 0

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MLWRT/PIPFTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech Mhrs	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning		10		127	0.02	2	0.02	2	0	0	0	0	0	0	0.1	2	0.02	2	0	0	0	0	0	0	0	0	0.05	5	0.05	5	0.05	5	1	100	0.02	2	0.02	2	0	0	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection Assumed Number of Samples/Visuals: 23		4.6	22	93	0	0	0	0	0	0	0	0	0	0	1	46	0.6	28	0	0	0.01	3	0	0	0.2	9	0	0	0	0	0	0	0.1	5	0	0	0.05	2	0	0	0	0	0	0
4. Characterization		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping				474																																								
ROBs	23	4.6	132	6624	2	92	2	92	4	184	0	0	0.2	9	1	46	0.6	28	0	0	0	0	0	0	0.05	2	0.05	2	0.05	2	0	0	0.1	5	0.2	9	0.05	2	0	0	0	0	0	0
Drums	0	0	0	0	2	0	2	0	3	0	0	0	0.2	0	1	0	0.6	0	0	0	0	0	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
6. Repackaging/Overpacking				0																																								
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	1	0	0.6	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	1	0	0.6	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	1	0	0.6	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
7. Container Movements				163																																								
ROB	23	5	45	163	1	50	0.5	25	0.5	25	0	0	0	0	0.4	20	0.6	30	0	0	0	0	0	0	0	0	0.05	3	0.05	3	0	0	0.1	5	0	0	0.05	3	0	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
8. Loading and Shipping				0																																								
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	1	0	0.6	0	1	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1	0	2	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1	0	2	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						*144*		*119*		*209*		*0*		*9*		*114*		*87*		*0*		*3*		*0*		*12*		*10*		*10*		*5*		*114*		*11*		*9*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$3,800	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	155	$9.68	$1,496
Normal Protective Clothing	change	45	$4.03	$181
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	0	$4,600	$0
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	0	$100	$0
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
Box turner	lease	1	$6,025	$6,025
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$10.80	$0
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY		
Total Manhours	856	
Total Labor		$29,563
Total Materials		$1,677
Total Subcontracts		$6,025
Total Burial		$0
Total Cost		$37,266
Total Cost minus burial		$37,266

All Costs are stated in FY01 Dollars

Comments and Assumptions:
1. Charge Code- BSTG5
2. Liners not included in estimate
3. Dump 5 ROBs per day

Prepared by: Rodney O. Bell
Date Prepared: 08/13/2001

Control Team Review:

Project Review:

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW RESIDUES AND OTHER MATERIALS

PBS: 11 Duration:
WBS: 1.1.M.E Fiscal Year:
Control Account: MMME

Project: Low Level Waste-SP7-MMME2
Campaign: RFD1102- AWWT Sump Cake

Quantity Basis (containers and volume): approximately 20,685 cu.ft. in 197 containers

Charge Number: MMME2
CAM: Dave Wood

Containers for Off-site Shipment: 0 1 day = 10 mhrs **Make Entries in Yellow Shaded Areas Only**
Total Containers minus ROBs: 197

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MILWRT/PIPFTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech Mhrs
1. Campaign Planning		12		164	0.02	2	0.02	2	0.02	2	0	0	0	0	0.1	12	0.02	2	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection		9.9	48	198	0	0	0	0	0	0	0	0	0	0	1	99	0.6	59	0	0	0.05	5
Assumed Number of Samples/Visuals:	197																					
4. Characterization		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping				1,020																		
Metal Boxes	197	9.9	285	4929	2	198	2	198	4	396	0	0	0.2	20	1	99	0.6	59	0	0	0	0
Drums	0	0	0	0	2	0	2	0	3	0	0	0	0.2	0	1	0	0.6	0	0	0	0	0
6. Repackaging/Overpacking				0																		
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	1	0	0.6	0	0	0	0	0
Boxes	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	1	0	0.6	0	0	0	0	0
Drums	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	1	0	0.6	0	0	0	0	0
7. Container Movements				267																		
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0
Metal Boxes	197	8.2	74	267	1	82	0.5	41	0.5	41	0	0	0	0	0.4	33	0.6	49	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0
8. Loading and Shipping				0																		
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	1	0	0.6	0	1	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1	0	2	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1	0	2	0	0	0
Total Manhours by Skill						*282*		*241*		*439*		*0*		*20*		*243*		*170*		*0*		*5*

Activity	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERK8) Req'd	Admin. Spt. Mhrs
1. Campaign Planning	0	0	0	0	0.05	6	0.05	6	0.05	6	1	120	0.02	2	0.02	2	0	0	0	0	0	0
2. SSR	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection	0	0	0.2	20	0	0	0	0	0	0	0.1	10	0	0	0.05	5	0	0	0	0	0	0
4. Characterization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping																						
Metal Boxes	0	0	0.05	5	0.05	5	0.05	5	0	0	0.1	10	0.2	20	0.05	5	0	0	0	0	0	0
Drums	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
6. Repackaging/Overpacking																						
ISOs	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
7. Container Movements																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	4	0.05	4	0	0	0.1	8	0	0	0.05	4	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
8. Loading and Shipping																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		*0*		*25*		*15*		*15*		*6*		*148*		*22*		*16*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	333	$9.68	$3,220
Normal Protective Clothing	change	74	$4.03	$297
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	0	$4,600	$0
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	0	$100	$0
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
Box turner	lease	1	$6,025	$6,025
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$10.80	$0
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY		
Total Manhours	1,648	
Total Labor		$55,811
Total Materials		$3,517
Total Subcontracts		$6,025
Total Burial		$0
Total Cost		$65,354
Total Cost minus burial		$65,354

All Costs are stated in FY01 Dollars

Comments and Assumptions:
1. Charge Code- EBWPA
2. Liners not included in estimate
3. Metal boxes recycled
4. Visually inspect 25 boxes or drums per day.

Prepared by: Rodney O. Bell
Date Prepared: 08/13/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW RESIDUES AND OTHER MATERIALS

PBS: 11 — Duration
WBS: 1.1.M.E — Fiscal Year
Control Account: MMME

Project: Low Level Waste-SP7-MMME2
Campaign: RFD1104- Ion Exchange Resin

Quantity Basis (containers and volume): approximately 6,615 cu.ft. in 63 containers

Charge Number: MMME2
CAM: Dave Wood

Conbiners for Off-site Shipment: 0 — 1 day = 10 mhrs — Make Entries in Yellow Shaded Areas Only
Total Containers minus ROBs: 63

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MEWRT/PIPFTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech Mhrs
1. Campaign Planning		11		146	0.02	2	0.02	2	0.02	2	0	0	0	0	0.1	11	0.02	2	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection		3.2	6	32	0	0	0	0	0	0	0	0	0	0	0	0	0.6	19	0	0	0.05	2
Assumed Number of Samples/Visuals:	63																					
4. Characterization		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping				330																		
Metal Boxes	63	3.2	92	330	2	64	2	64	4	128	0	0	0.2	6	1	32	0.6	19	0	0	0	0
Drums	0	0	0	0	2	0	2	0	3	0	0	0	0.2	0	1	0	0.6	0	0	0	0	0
6. Repackaging/Overpacking				0																		
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	1	0	0.6	0	0	0	0	0
Boxes	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	1	0	0.6	0	0	0	0	0
Drums	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	1	0	0.6	0	0	0	0	0
7. Container Movements				85																		
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0
Metal Boxes	63	2.6	23	85	1	26	0.5	13	0.5	13	0	0	0	0	0.4	10	0.6	16	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0
8. Loading and Shipping				0																		
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	1	0	0.6	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1	0	0	0	0	0
Total Manhours by Skill						92		79		143		0		6		53		56		0		2

Activity	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning	0	0	0	0	0.05	5	0.05	5	0.05	5	1	106	0.02	2	0.02	2	0	0	0	0	0	0
2. SSR	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection	0	0	0.2	6	0	0	0	0	0	0	0.1	3	0	0	0.05	2	0	0	0	0	0	0
Assumed Number of Samples/Visuals:																						
4. Characterization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping																						
Metal Boxes	0	0	0.05	2	0.05	2	0.05	2	0	0	0.1	3	0.2	6	0.05	2	0	0	0	0	0	0
Drums	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
6. Repackaging/Overpacking																						
ISOs	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
7. Container Movements																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	1	0.05	1	0	0	0.1	3	0	0	0.05	1	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
8. Loading and Shipping																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		0		8		8		8		5		115		9		7		0		0		0

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	98	$9.68	$948
Normal Protective Clothing	change	23	$4.03	$94
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	0	$4,600	$0
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	0	$100	$0
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
Box turner	lease	1	$6,025	$6,025
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$10.80	$0
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY		
Total Manhours	592	
Total Labor		**$20,780**
Total Materials		**$1,042**
Total Subcontracts		**$6,025**
Total Burial		**$0**
Total Cost		**$27,847**
Total Cost minus burial		**$27,847**

All Costs are stated in FY01 Dollars

Comments and Assumptions:
1. Charge Code- EBWPA
2. Liners not included in estimate
3. Metal boxes recycled
4. Visually inspect 25 boxes or drums per day.

Prepared by: Rodney O. Bell
Date Prepared: 08/13/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW RESIDUES AND OTHER MATERIALS

PBS: 11
WBS: 1.1.M.E
Control Account: MMME

Duration:
Fiscal Year:

Project: Low Level Waste-SP7-MMME2

Campaign: RFD1105- Non-Oily Sludge

Quantity Basis (containers and volume): approximately 6,090 cu.ft. in 58 containers

Charge Number: MMME2
CAM: Dave Wood

Containers for Off-site Shipment: 0
Total Containers minus ROBs: 58

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MLWRT/PIPFTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech Mhrs
1. Campaign Planning		11		145	0.02	2	0.02	2	0.02	2	0	0	0	0	0.10	11	0.02	2	0	0	0.00	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection		2.9	5	29	0	0	0	0	0	0	0	0	0	0	0	0	0.6	17	0	0	0.05	1
Assumed Number of Samples/Visuals:	58																					
4. Characterization		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping				299																		
Metal Boxes	58	2.9	84	299 6629	2	58	2	58	4	116	0	0	0.2	6	1	29	0.6	17	0	0	0	0
Drums	0	0	0	0	2	0	2	0	3	0	0	0	0.2	0	1	0	0.6	0	0	0	0	0
6. Repackaging/Overpacking				0																		
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	1	0	0.6	0	0	0	0	0
Boxes	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	1	0	0.6	0	0	0	0	0
Drums	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	1	0	0.6	0	0	0	0	0
7. Container Movements				78																		
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0
Metal Boxes	58	2.4	22	78	1	24	0.5	12	0.5	12	0	0	0	0	0.4	10	0.6	14	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0
8. Loading and Shipping				0																		
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	1	0	0.6	0	1	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1	0	2	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1	0	2	0	0	0
Total Manhours by Skill						*84*		*72*		*130*		*0*		*6*		*49*		*51*		*0*		*1*

Activity		WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning		0.00	0	0.00	0	0.05	5	0.05	5	0.05	5	1.00	106	0.02	2	0.02	2	0	0	0	0	0	0
2. SSR	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection		0	0	0.2	6	0	0	0	0	0	0	0.1	3	0	0	0.05	1	0	0	0	0	0	0
Assumed Number of Samples/Visuals:	58																						
4. Characterization		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping																							
Metal Boxes	58	0	0	0.05	1	0.05	1	0.05	1	0	0	0.1	3	0.2	6	0.05	1	0	0	0	0	0	0
Drums	0	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
6. Repackaging/Overpacking																							
ISOs	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
7. Container Movements																							
ISOs	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	58	0	0	0	0	0.05	1	0.05	1	0	0	0.1	2	0	0	0.05	1	0	0	0	0	0	0
Drums	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
8. Loading and Shipping																							
ISOs	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill			*0*		*7*		*8*		*8*		*5*		*114*		*8*		*6*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	89	$9.68	$859
Normal Protective Clothing	change	22	$4.03	$87
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	0	$4,600	$0
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	0	$100	$0
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
Box turner	lease	1	$6,025	$6,025
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$10.80	$0
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY		
Total Manhours	551	
Total Labor		**$19,469**
Total Materials		**$946**
Total Subcontracts		**$6,025**
Total Burial		**$0**
Total Cost		**$26,440**
Total Cost minus burial		**$26,440**

All Costs are stated in FY01 Dollars

Comments and Assumptions:
1. Charge Code- MLLR2
2. Liners not included in estimate
3. Metal boxes recycled
4. Visually inspect 25 boxes or drums per day.

Prepared by: Rodney O. Bell
Date Prepared: 08/13/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW RESIDUES AND OTHER MATERIALS

PBS: 11
WBS: 1.1.M.E
Control Account: MMME

Duration:
Fiscal Year:

Project: Low Level Waste
Campaign: RFD1107- Plant 8 Sump Cake

Quantity Basis (containers and volume): approximately 13,860 cu.ft. in 132 containers

Charge Number: MMME2
CAM: Dave Wood

Containers for Off-site Shipment: 0
Total Containers minus ROBs: 132

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MLWRT/PPFTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech Mhrs
1. Campaign Planning		11		155	0.02	2	0.02	2	0.02	2	0	0	0	0	0.10	11	0.02	2	0	0	0.00	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection		6.6	12	66	0	0	0	0	0	0	0	0	0	0	0	0	0.6	40	0	0	0.05	3
Assumed Number of Samples/Visuals:	132																					
4. Characterization		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping				680																		
Metal Boxes	132	6.6	190	689	2	132	2	132	4	264	0	0	0.2	13	1	66	0.6	40	0	0	0	0
Drums	0	0	0	0	2	0	2	0	3	0	0	0	0.2	0	1	0	0.6	0	0	0	0	0
6. Repackaging/Overpacking				0																		
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	1	0	0.6	0	0	0	0	0
Boxes	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	1	0	0.6	0	0	0	0	0
Drums	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	1	0	0.6	0	0	0	0	0
7. Container Movements				179																		
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0
Metal Boxes	132	5.5	50	179	1	55	0.5	28	0.5	28	0	0	0	0	0.4	22	0.6	33	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0
8. Loading and Shipping				0																		
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	1	0	0.6	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1	0	0	0	0	0
Total Manhours by Skill						*189*		*162*		*294*		*0*		*13*		*99*		*114*		*0*		*3*

Activity	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng (S&HENG) Req'd	Safety Eng Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning	0.00	0	0.00	0	0.05	6	0.05	6	0.05	6	1.00	113	0.02	2	0.02	2	0	0	0	0	0	0
2. SSR	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection	0	0	0.2	13	0	0	0	0	0	0	0.1	7	0	0	0.05	3	0	0	0	0	0	0
4. Characterization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping																						
Metal Boxes	0	0	0.05	3	0.05	3	0.05	3	0	0	0.1	7	0.2	13	0.05	3	0	0	0	0	0	0
Drums	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
6. Repackaging/Overpacking																						
ISOs	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
7. Container Movements																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	3	0.05	3	0	0	0.1	6	0	0	0.05	3	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
8. Loading and Shipping																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		*0*		*17*		*12*		*12*		*6*		*132*		*15*		*12*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	202	$9.68	$1,955
Normal Protective Clothing	change	50	$4.03	$199
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	0	$4,600	$0
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	0	$100	$0
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
Box turner	lease	1	$6,025	$6,025
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$10.80	$0
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY		
Total Manhours	1,080	
Total Labor		**$36,384**
Total Materials		**$2,154**
Total Subcontracts		**$6,025**
Total Burial		**$0**
Total Cost		**$44,564**
Total Cost minus burial		**$44,564**

All Costs are stated in FY01 Dollars

Comments and Assumptions:
1. Charge Code- MLLR2
2. Liners not included in estimate
3. Metal boxes recycled
4. Visually inspect 25 boxes or drums per day.

Prepared by: Rodney O. Bell
Date Prepared: 08/13/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW RESIDUES AND OTHER MATERIALS

PBS 11
WBS: 1.1.M.E
Control Account: MMME

Duration:
Fiscal Year.

Project: Low Level Waste
Campaign: WPRP1002- Sumpcake-Like Material?

Quantity Basis (containers and volume): approximately 15,020 cu.ft. in 1452 containers

Charge Number: MMME2
CAM: Dave Wood

Containers for Off-site Shipment: 0
Total Containers minus ROBs: 1,452

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MILWRT/PIPFTR) Req'd	Maintenance (MILWRT/PIPFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech (LABTECH) Mhrs
1. Campaign Planning		25		336	0.02	5	0.02	5	0.02	5	0	0	0	0	0.1	25	0.02	5	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection		64	115	640	0	0	0	0	0	0	0	0	0	0	0	0	0.6	384	0	0	0.05	32
Assumed Number of Samples/Visuals:	1,452																					
4. Characterization		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping				783																		
ROBs	29	5.80	167	6625	2	116	2	116	4	232	0	0	0.2	12	1	58	0.6	35	0	0	0	0
Metal Boxes	35	1.80	52	185	2	36	2	36	4	72	0	0	0.2	4	1	18	0.6	11	0	0	0	0
6. Repackaging/Overpacking				3,033																		
ROBs	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	1	0	0.6	0	0	0	0	0
Boxes	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	1	0	0.6	0	0	0	0	0
Drums	1,417	56.7	799	3033	2	1134	1	567	0.1	57	0	0	0	0	1	567	0.6	340	0	0	0	0
7. Container Movements				624																		
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0
Metal Boxes	35	1.5	14	49	1	15	0.5	8	0.5	8	0	0	0	0	0.4	6	0.6	9	0	0	0	0
Drums	1,417	17.7	159	575	1	177	0.5	89	0.5	89	0	0	0	0	0.4	71	0.6	106	0	0	0	0
8. Loading and Shipping				0																		
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	1	0	0.6	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1	0	0	0	0	0
Total Manhours by Skill						*1,483*		*820*		*462*		*0*		*15*		*744*		*890*		*0*		*32*

Activity	WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Red Eng. (RADENG) Req'd	Red Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning	0	0	0	0	0.05	12	0.05	12	0.05	12	1	245	0.02	5	0.02	5	0	0	0	0	0	0
2. SSR	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection	0	0	0.2	128	0	0	0	0	0	0	0.1	64	0	0	0.05	32	0	0	0	0	0	0
4. Characterization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping																						
ROBs	0	0	0.05	3	0.05	3	0.05	3	0	0	0.1	6	0.2	12	0.05	3	0	0	0	0	0	0
Metal Boxes	0	0	0.05	1	0.05	1	0.05	1	0	0	0.1	2	0.2	4	0.05	1	0	0	0	0	0	0
6. Repackaging/Overpacking																						
ROBs	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.2	113	0.05	28	0.05	28	0	0	0.1	57	0.2	113	0.05	28	0	0	0	0	0	0
7. Container Movements																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	1	0.05	1	0	0	0.1	2	0	0	0.05	1	0	0	0	0	0	0
Drums	0	0	0	0	0.05	9	0.05	9	0	0	0.1	18	0	0	0.05	9	0	0	0	0	0	0
8. Loading and Shipping																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		*0*		*245*		*54*		*54*		*12*		*393*		*134*		*79*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$3,800	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	1134	$9.68	$10,973
Normal Protective Clothing	change	173	$4.03	$696
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	0	$4,600	$0
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	0	$100	$0
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
Box turner	lease	1	$6,025	$6,025
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$10.80	$0
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY		
Total Manhours	5,416	
Total Labor		**$181,031**
Total Materials		**$11,669**
Total Subcontracts		**$6,025**
Total Burial		**$0**
Total Cost		**$198,725**
Total Cost minus burial		**$198,725**

All Costs are stated in FY01 Dollars

Comments and Assumptions:
1. Charge Code- ABCP2, EBWPA, MLLR1
2. Liners not included in estimate
3. Metal boxes recycled
4. Visually inspect 25 boxes or drums per day.

Prepared by: Rodney O. Bell
Date Prepared: 08/13/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW RESIDUES AND OTHER MATERIALS

PBS 11 — Duration:
WBS 1 1 M E — Fiscal Year:
Control Account MMME

Project: Low Level Waste
Campaign: WPRP1003- Wet residues

Charge Number MMME2
CAM Dave Wood

Quantity Basis (containers and volume): approximately 2,300 cu.ft. in 263 containers

Containers for Off-site Shipment: 0 — 1 day = 10 mhrs — Make Entries in Yellow Shaded Areas Only
Total Containers minus ROBs: 263

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MILWRTR/FTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech Mhrs	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning		13		181	0.02	3	0.05	6	0.02	3	0	0	0	0	0.1	13	0.02	3	0	0	0	0	0	0	0	0	0.05	6	0.05	6	0.05	6	1	126	0.05	6	0.02	3	0	0	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection Assumed Number of Samples/Visuals: 263		11.7	21	117	0	0	0	0	0	0	0	0	0	0	0	0	0.6	70	0	0	0.05	6	0	0	0.2	23	0	0	0	0	0	0	0.1	12	0	0	0.05	6	0	0	0	0	0	0
4. Characterization		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping				133																																								
ROBs	6	1.20	35	42 60	2	24	2	24	4	48	0	0	0.2	2	1	12	0.6	7	0	0	0	0	0	0	0.05	1	0.05	1	0.05	1	0	0	0.1	1	0.2	2	0.05	1	0	0	0	0	0	0
Metal Boxes	2	0.1	3	9	2	2	2	2	3	3	0	0	0.2	0	1	1	0.6	1	0	0	0	0	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
6. Repackaging/Overpacking				556																																								
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	1	0	0.6	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	1	0	0.6	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	261	10.4	147	556	2	208	1	104	0.1	10	0	0	0	0	1	104	0.6	62	0	0	0	0	0	0	0.2	21	0.05	5	0.05	5	0	0	0.1	10	0.2	21	0.05	5	0	0	0	0	0	0
7. Container Movements				111																																								
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	2	0.1	1	3	1	1	0.5	1	0.5	1	0	0	0	0	0.4	0	0.6	1	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	261	3.3	30	107	1	33	0.5	17	0.5	17	0	0	0	0	0.4	13	0.6	20	0	0	0	0	0	0	0	0	0.05	2	0.05	2	0	0	0.1	3	0	0	0.05	2	0	0	0	0	0	0
8. Loading and Shipping				0																																								
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	1	0	0.6	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						271		153		81		0		3		143		163		0		6		0		45		14		14		6		153		30		16		0		0		0

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	205	$9.68	$1,983
Normal Protective Clothing	change	31	$4.03	$123
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	0	$4,600	$0
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	0	$100	$0
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
Box turner	lease	1	$6,025	$6,025
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$10.80	$0
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY		
Total Manhours	1,097	
Total Labor		$38,042
Total Materials		$2,106
Total Subcontracts		$6,025
Total Burial		$0
Total Cost		$46,174
Total Cost minus burial		$46,174

All Costs are stated in FY01 Dollars

Comments and Assumptions:
1. Charge Code(s)- ABCP2, MLLR1
2. Liners not included in estimate
3. Metal boxes recycled
4. Visually inspect 25 boxes or drums per day.
5. Dumping 2 ROBs per day

Prepared by: Rodney O. Bell
Date Prepared: 08/13/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW RESIDUES AND OTHER MATERIALS

PBS: 11 — Duration
WBS: 1.1.M.E — Fiscal Year
Control Account: MMME

Project: Low Level Waste
Campaign: WPRP1004- Sludges

Quantity Basis (containers and volume): approximately 475 cu.ft. in 47 containers

Charge Number: MMME2
CAM: Dave Wood

Containers for Off-site Shipment: 0
Total Containers minus ROBs: 47

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MILWRT/PIPFTR) Req'd	Maintenance (MILWRT/PIPFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech (LABTECH) Mhrs	WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERK6) Req'd	Admin. Spt. (CLERK6) Mhrs
1. Campaign Planning		10		143	0.02	2	0.02	2	0.02	2	0	0	0	0	0.1	10	0.02	2	0	0	0	0	0	0	0	0	0.05	5	0.05	5	0.05	5	1	105	0.02	2	0.02	2	0	0	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection Assumed Number of Samples/Visuals: 47		2.3	4	23	0	0	0	0	0	0	0	0	0	0	0	0	0.6	14	0	0	0.05	1	0	0	0.2	5	0	0	0	0	0	0	0.1	2	0	0	0.05	1	0	0	0	0	0	0
4. Characterization		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping				29																																								
ROBs	1	0.20	5	60 29	2	4	1	2	4	8	0	0	0.2	0	1	2	0.6	1	0	0	0	0	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	1	0.1	3	10	2	2	2	2	4	4	0	0	0.2	0	1	1	0.6	1	0	0	0	0	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
6. Repackaging/Overpacking				107																																								
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	1	0	0.6	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	1	0	0.6	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	46	2	28	107	2	40	1	20	0.1	2	0	0	0	0	1	20	0.6	12	0	0	0	0	0	0	0.2	4	0.05	1	0.05	1	0	0	0.1	2	0.2	4	0.05	1	0	0	0	0	0	0
7. Container Movements				21																																								
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	1	0.1	0	2	1	1	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	46	0.6	5	20	1	6	0.5	3	0.5	3	0	0	0	0	0.4	2	0.6	4	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	1	0	0	0.05	0	0	0	0	0	0	0
8. Loading and Shipping				0																																								
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	1	0	0.6	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						55		29		19		0		1		36		34		0		1		0		9		7		7		5		110		7		5		0		0		0

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	40	$9.68	$391
Normal Protective Clothing	change	6	$4.03	$24
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	0	$4,600	$0
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	0	$100	$0
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
Box turner	lease	1	$6,025	$6,025
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$10.80	$0
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY		
Total Manhours	323	
Total Labor		$12,411
Total Materials		$414
Total Subcontracts		$6,025
Total Burial		$0
Total Cost		$18,851
Total Cost minus burial		$18,851

All Costs are stated in FY01 Dollars

Comments and Assumptions:
1. Charge Code(s)- ABCP2, BCGW1, BCHW1, MLLR1
2. Liners not included in estimate
3. Metal boxes recycled
4. Visually inspect 25 boxes or drums per day.

Prepared by: Rodney O. Bell
Date Prepared: 08/13/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW RESIDUES AND OTHER MATERIALS

PBS: 11
WBS: 1.1.M
Control Account: MMME

Duration:
Fiscal Year:

Project: Low Level Waste
Campaign: Residues to SP7

Quantity Basis (containers and volume): approximately 17,384 cu.ft. in 629 containers

Charge Number: MMME2
CAM: Dave Wood

Containers for Off-site Shipment: 0
Total Containers minus ROBs: 629

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity	Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MLWRT/PIPFTR) Req'd	Maintenance (MLWRT/PIPFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech (LABTECH) Mhrs	WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning	10		147	0.05	5	0.05	5	0	0	0	0	0	0	0.1	10	0.02	2	0	0	0	0	0	0	0	0	0.05	5	0.05	5	0.05	5	1	100	0.05	5	0.05	5	0	0	0	0	0	0
2. SSR 0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection Assumed Number of Samples/Visuals: 629	26.6	126	532	0	0	0	0	0	0	0	0	0	0	1	266	0.6	160	0	0	0.02	13	0	0	0.2	53	0	0	0	0	0	0	0.1	27	0	0	0.05	13	0	0	0	0	0	0
4. Characterization	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping			761																																								
ROBs 10	2	52	186	2	40	2	40	3	60	0	0	0.2	4	1	20	0.6	12	0	0	0	0	0	0	0.05	1	0.05	1	0.05	1	0	0	0.1	2	0.2	4	0.05	1	0	0	0	0	0	0
Metal boxes 128	6.4	165	595	2	128	2	128	3	192	0	0	0.2	13	1	64	0.6	38	0	0	0	0	0	0	0.05	3	0.05	3	0.05	3	0	0	0.1	6	0.2	13	0.05	3	0	0	0	0	0	0
6. Repackaging/Overpacking			1,070																																								
ISOs 0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	1	0	0.6	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes 0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	1	0	0.6	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums 501	20	282	1070	2	400	1	200	0.1	20	0	0	0	0	1	200	0.6	120	0	0	0	0	0	0	0.2	40	0.05	10	0.05	10	0	0	0.1	20	0.2	40	0.05	10	0	0	0	0	0	0
7. Container Movements			377																																								
ISOs 0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes 128	5.3	48	172	1	53	0.5	27	0.5	27	0	0	0	0	0.4	21	0.6	32	0	0	0	0	0	0	0	0	0.05	3	0.05	3	0	0	0.1	5	0	0	0.05	3	0	0	0	0	0	0
Drums 501	6.3	57	205	1	63	0.5	32	0.5	32	0	0	0	0	0.4	25	0.6	38	0	0	0	0	0	0	0	0	0.05	3	0.05	3	0	0	0.1	6	0	0	0.05	3	0	0	0	0	0	0
8. Loading and Shipping			0																																								
ISOs 0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	1	0	0.6	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes 0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums 0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill					*689*		*431*		*330*		*0*		*17*		*606*		*402*		*0*		*13*		*0*		*97*		*25*		*25*		*5*		*167*		*62*		*38*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	626	$9.68	$6,064
Normal Protective Clothing	change	104	$4.03	$421
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	0	$4,600	$0
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	0	$100	$0
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
Box Turner	lon	1	$6,025	$6,025
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$10.80	$0
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY		
Total Manhours	2,907	
Total Labor		**$99,399**
Total Materials		**$6,484**
Total Subcontracts		**$6,025**
Total Burial		**$0**
Total Cost		**$111,908**
Total Cost minus burial		**$111,908**

All Costs are stated in FY01 Dollars

Comments and Assumptions:

Prepared by: Rodney O. Bell
Date Prepared: 08/13/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW RESIDUES AND OTHER MATERIALS

PBS: 11 | Duration:
WBS: 1.1.M.E | Fiscal Year:
Control Account: MMME

Project: Low Level Waste
Campaign: RES 1009 - Sumpcake

Quantity Basis (containers and volume): 9,345 cu.ft. in 179 containers

Charge Number: MMME2
CAM: Dave Wood

Containers for Off-site Shipment: 0 | 1 day = 10 mhrs | Make Entries in Yellow Shaded Areas Only
Total Containers minus ROBs: 179

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MLWRT/PIPFTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech Mhrs
1. Campaign Planning		12		162	0.02	2	0.02	2	0.02	2	0	0	0	0	0.1	12	0.02	2	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection		8.5	15	85	0	0	0	0	0	0	0	0	0	0	0	0	0.6	51	0	0	0.05	5
Assumed Number of Samples/Visuals:	179																					
4. Characterization		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping				464																		
ROBs	2	0.4	12	60	2	8	2	8	4	16	0	0	0.2	1	1	4	0.6	2	0	0	0	0
Metal Boxes	82	4.1	118	422	2	82	2	82	4	164	0	0	0.2	8	1	41	0.6	25	0	0	0	0
6. Repackaging/Overpacking				214																		
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	1	0	0.6	0	0	0	0	0
Boxes	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	1	0	0.6	0	0	0	0	0
Drums	97	4	56	214	2	80	1	40	0.1	4	0	0	0	0	1	40	0.6	24	0	0	0	0
7. Container Movements				150																		
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0
Metal Boxes	82	3.4	31	111	1	34	0.5	17	0.5	17	0	0	0	0	0.4	14	0.6	20	0	0	0	0
Drums	97	1.2	11	39	1	12	0.5	6	0.5	6	0	0	0	0	0.4	5	0.6	7	0	0	0	0
8. Loading and Shipping				0																		
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	1	0	0.6	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1	0	0	0	0	0
Total Manhours by Skill						*218*		*155*		*209*		*0*		*9*		*115*		*132*		*0*		*5*

Activity	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERK8) Req'd	Admin. Spt. Mhrs
1. Campaign Planning	0	0	0	0	0.05	6	0.05	6	0.05	6	1	118	0.02	2	0.02	2	0	0	0	0	0	0
2. SSR	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection	0	0	0.2	17	0	0	0	0	0	0	0.1	9	0	0	0.05	4	0	0	0	0	0	0
4. Characterization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping																						
ROBs	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	1	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0.05	2	0.05	2	0.05	2	0	0	0.1	4	0.2	8	0.05	2	0	0	0	0	0	0
6. Repackaging/Overpacking																						
ISOs	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.2	8	0.05	2	0.05	2	0	0	0.1	4	0.2	8	0.05	2	0	0	0	0	0	0
7. Container Movements																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	2	0.05	2	0	0	0.1	3	0	0	0.05	2	0	0	0	0	0	0
Drums	0	0	0	0	0.05	1	0.05	1	0	0	0.1	1	0	0	0.05	1	0	0	0	0	0	0
8. Loading and Shipping																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		*0*		*27*		*12*		*12*		*6*		*140*		*19*		*13*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$3,800	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	201	$9.68	$1,949
Normal Protective Clothing	change	41	$4.03	$167
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	0	$4,600	$0
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	0	$100	$0
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
Box turner	lease	1	$6,025	$6,025
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$10.80	$0
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY		
Total Manhours	1,074	
Total Labor		$36,604
Total Materials		$2,115
Total Subcontracts		$6,025
Total Burial		$0
Total Cost		$44,745
Total Cost minus burial		$44,745

All Costs are stated in FY01 Dollars

Comments and Assumptions:
1. Liners not included in estimate
2. Metal boxes recycled
3. Visually inspect 25 boxes or drums per day.

Prepared by: Rodney O. Bell
Date Prepared: 08/13/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW RESIDUES AND OTHER MATERIALS

PBS: 11 Duration:
WBS: 1.1.M.E Fiscal Year:
Control Account: MMME

Project: Low Level Waste

Campaign: RES 1011 - Sludge-like material (<12%U)

Quantity Basis (containers and volume): 91 containers with approximately 728 cu.ft.

Charge Number: MMME2
CAM: Dave Wood

Containers for Off-site Shipment: 0 1 day = 10 mhrs **Make Entries in Yellow Shaded Areas Only**
Total Containers minus ROBs: 91

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MLWRT/PPFTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech Mhrs	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning		11		149	0.02	2	0.02	2	0.02	2	0	0	0	0	0.1	11	0.02	2	0	0	0	0	0	0	0	0	0.05	5	0.05	5	0.05	5	1	109	0.02	2	0.02	2	0	0	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection		4.4	8	44	0	0	0	0	0	0	0	0	0	0	0	0	0.6	26	0	0	0.05	2	0	0	0.2	9	0	0	0	0	0	0	0.1	4	0	0	0.05	2	0	0	0	0	0	0
Assumed Number of Samples/Visuals:	91																																											
4. Characterization		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping				41																																								
ROBs	2	0.40	12	6025	2	8	2	8	4	16	0	0	0.2	1	1	4	0.6	2	0	0	0	0	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	1	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	2	0	2	0	4	0	0	0	0.2	0	1	0	0.6	0	0	0	0	0	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
6. Repackaging/Overpacking				214																																								
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	1	0	0.6	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	1	0	0.6	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	91	4	56	214	2	80	1	40	0.1	4	0	0	0	0	1	40	0.6	24	0	0	0	0	0	0	0.2	8	0.05	2	0.05	2	0	0	0.1	4	0.2	8	0.05	2	0	0	0	0	0	0
7. Container Movements				39																																								
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	91	1.2	11	39	1	12	0.5	6	0.5	6	0	0	0	0	0.4	5	0.6	7	0	0	0	0	0	0	0	0	0.05	1	0.05	1	0	0	0.1	1	0	0	0.05	1	0	0	0	0	0	0
8. Loading and Shipping				0																																								
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	1	0	0.6	0	1	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1	0	2	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1	0	2	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						*102*		*56*		*28*		*0*		*1*		*60*		*62*		*0*		*2*		*0*		*17*		*8*		*8*		*5*		*119*		*11*		*7*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	76	$9.68	$734
Normal Protective Clothing	change	11	$4.03	$44
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	0	$4,600	$0
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	0	$100	$0
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
Box turner	lease	1	$6,025	$6,025
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$10.80	$0
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY		
Total Manhours	488	
Total Labor		$17,861
Total Materials		$778
Total Subcontracts		$6,025
Total Burial		$0
Total Cost		$24,664
Total Cost minus burial		$24,664

All Costs are stated in FY01 Dollars

Comments and Assumptions:
1. Visually inspect 25 boxes or drums per day.
2. Drums crushed and dumped into ROBs

Prepared by: Rodney O. Bell
Date Prepared: 08/13/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW RESIDUES AND OTHER MATERIALS

PBS: 11 Duration:
WBS: 1 1.M.E Fiscal Year:
Control Account: MMME

Project: Low Level Waste

Campaign: RES 1015 - Soils-like material, Concrete, Brick

Quantity Basis (containers and volume): 105 containers with approximately 6,720 cu.ft.

Charge Number: MMME2
CAM: Dave Wood

Containers for Off-site Shipment: 0
Total Containers minus ROBs: 105

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MILWRT/PIPFTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech Mhrs
1. Campaign Planning		11		155	0.02	2	0.02	2	0.02	2	0	0	0	0	0.1	11	0.02	2	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection		3	14	60	0	0	0	0	0	0	0	0	0	0	1	30	0.6	18	0	0	0.05	2
Assumed Number of Samples/Visuals:	105																					
4. Characterization		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping				309																		
ROBs	3	0.6	17	6025	2	12	2	12	4	24	0	0	0.2	1	1	6	0.6	4	0	0	0	0
Metal boxes	47	2.4	69	247	2	48	2	48	4	96	0	0	0.2	5	1	24	0.6	14	0	0	0	0
6. Repackaging/Overpacking				107																		
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	1	0	0.6	0	0	0	0	0
Boxes	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	1	0	0.6	0	0	0	0	0
Drums	57	2	28	107	2	40	1	20	0.1	2	0	0	0	0	1	20	0.6	12	0	0	0	0
7. Container Movements				137																		
ISOs	1	1.5	14	49	1	15	0.5	8	0.5	8	0	0	0	0	0.4	6	0.6	9	0	0	0	0
Metal Boxes	47	2.0	18	65	1	20	0.5	10	0.5	10	0	0	0	0	0.4	8	0.6	12	0	0	0	0
Drums	57 57	0.7	6	23	1	7	0.5	4	0.5	4	0	0	0	0	0.4	3	0.6	4	0	0	0	0
8. Loading and Shipping				0																		
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	1	0	0.6	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1	0	0	0	0	0
Total Manhours by Skill						*144*		*103*		*145*		*0*		*6*		*108*		*75*		*0*		*2*

Activity	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning	0	0	0	0	0.05	6	0.05	6	0.05	6	1	111	0.02	2	0.05	6	0	0	0	0	0	0
2. SSR	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection	0	0	0.2	6	0	0	0	0	0	0	0.1	3	0	0	0.05	2	0	0	0	0	0	0
4. Characterization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping																						
ROBs	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	1	0.2	1	0.05	0	0	0	0	0	0	0
Metal boxes	0	0	0.05	1	0.05	1	0.05	1	0	0	0.1	2	0.2	5	0.05	1	0	0	0	0	0	0
6. Repackaging/Overpacking																						
ISOs	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.2	4	0.05	1	0.05	1	0	0	0.1	2	0.2	4	0.05	1	0	0	0	0	0	0
7. Container Movements																						
ISOs	0	0	0	0	0.05	1	0.05	1	0	0	0.1	2	0	0	0.05	1	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	1	0.05	1	0	0	0.1	2	0	0	0.05	1	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	1	0	0	0.05	0	0	0	0	0	0	0
8. Loading and Shipping																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		*0*		*12*		*10*		*10*		*6*		*123*		*12*		*12*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	129	$9.68	$1,249
Normal Protective Clothing	change	38	$4.03	$152
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	0	$4,600	$0
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	0	$100	$0
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
Box turner	lease	1	$6,025	$6,025
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$10.80	$0
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY		
Total Manhours	767	
Total Labor		$27,078
Total Materials		$1,401
Total Subcontracts		$6,025
Total Burial		$0
Total Cost		$34,504
Total Cost minus burial		$34,504

All Costs are stated in FY01 Dollars

Comments and Assumptions:
1. S/L emptied into ROB
2. Visually inspect 25 drums or metal boxes per day

Prepared by: Rodney O. Bell
Date Prepared: 08/13/2001

Control Team Review:

Project Review:

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW RESIDUES AND OTHER MATERIALS

PBS: 11
WBS: 1.1.M.E
Control Account: MMME

Duration:
Fiscal Year:

Project: Low Level Waste
Campaign: SILO 1002 - SP7

Quantity Basis (containers and volume): approximately 2,560 cu.ft. in 28 containers

Charge Number: MMME2
CAM: Dave Wood

Containers for Off-site Shipment: 0
Total Containers minus ROBs: 28

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MLWRT/PIPFTR) Req'd	Maintenance (MLWRT/PIPFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech (LABTECH) Mhrs
1. Campaign Planning		10		141	0.02	2	0.02	2	0.02	2	0	0	0	0	0.1	10	0.02	2	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection		1.1	5	22	0	0	0	0	0	0	0	0	0	0	1	11	0.6	7	0	0	0.05	1
Assumed Number of Samples/Visuals:	28																					
4. Characterization		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping				139																		
Metal Boxes	25	1.3	37	60	2	26	2	26	4	52	0	0	0.2	3	1	13	0.6	8	0	0	0	0
Drums	0	0	1	5	2	1	2	1	4	2	0	0	0.2	0	1	1	0.6	0	0	0	0.05	0
6. Repackaging/Overpacking				9																		
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	1	0	0.6	0	0	0	0.05	0
Boxes	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	1	0	0.6	0	0	0	0.05	0
Drums	4	0.16	2	9	2	3	1	2	0.1	0	0	0	0	0	1	2	0.6	1	0	0	0.05	0
7. Container Movements				34																		
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0
Metal Boxes	24	1.0	9	33	1	10	0.5	5	0.5	5	0	0	0	0	0.4	4	0.6	6	0	0	0	0
Drums	4	0.1	1	2	1	1	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0
8. Loading and Shipping				0																		
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	1	0	0.6	0	1	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1	0	2	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1	0	2	0	0	0
Total Manhours by Skill						43		36		62		0		3		44		24		0		1

Activity	WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning	0	0	0	0	0.05	5	0.05	5	0.05	5	1	103	0.02	2	0.02	2	0	0	0	0	0	0
2. SSR	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection	0	0	0.2	2	0	0	0	0	0	0	0.1	1	0	0	0.05	1	0	0	0	0	0	0
4. Characterization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping																						
Metal Boxes	0	0	0.05	1	0.05	1	0.05	1	0	0	0.1	1	0.2	3	0.05	1	0	0	0	0	0	0
Drums	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
6. Repackaging/Overpacking																						
ISOs	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
7. Container Movements																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	1	0.05	1	0	0	0.1	1	0	0	0.05	1	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
8. Loading and Shipping																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		0		3		6		6		5		105		5		4		0		0		0

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	46	$9.68	$449
Normal Protective Clothing	change	10	$4.03	$38
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	0	$4,600	$0
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	0	$100	$0
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
Box turner	lease	1	$6,025	$6,025
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$10.80	$0
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY

Total Manhours	345	
Total Labor		**$13,039**
Total Materials		**$488**
Total Subcontracts		**$6,025**
Total Burial		**$0**
Total Cost		**$19,552**
Total Cost minus burial		**$19,552**

All Costs are stated in FY01 Dollars

Comments and Assumptions:

Prepared by: Rodney O. Bell
Date Prepared: 08/13/2001

Control Team Review:

Project Review:

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW RESIDUES AND OTHER MATERIALS

PBS: 11 Duration:
WBS: 1.1.M Fiscal Year:
Control Account: MMME

Project: Low Level Waste-IIMS SLUDGE- MMME2

Campaign: Sludge from IIMS System to SP7

Quantity Basis (containers and volume): approximately 1,770 cu.ft. in 5 containers

Charge Number: MMME2
CAM: Dave Wood

Containers for Off-site Shipment: 0 1 day = 10 mhrs Make Entries in Yellow Shaded Areas Only
Total Containers minus ROBs: 5

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MRLWRT/RPFTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	Lab Tech (LABTECH) Req'd	Lab Tech Mhrs	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning		10		142	0.02	2	0.02	2	0	0	0	0	0	0	0.1	10	0.02	2	0	0	0	0	0	0	0	0	0.05	5	0.05	5	0.05	5	1	101	0.05	5	0.05	5	0	0	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection		0.50	8	28	3	15	1	5	0	0	0	0	0	0	0.5	3	0.6	3	0	0	0.1	1	0	0	0.2	1	0	0	0	0	0	0	0.1	1	0	0	0.05	0	0	0	0	0	0	0
Assumed Number of Samples/Visuals:	5																																											
4. Characterization		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.9	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping				19																																								
Metal Boxes	8	0.2	5	19	2	4	2	4	3	6	0	0	0.2	0	1	2	0.4	1	0	0	0	0	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	2	0	2	0	3	0	0	0	0.2	0	1	0	0.4	0	0	0	0	0	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
6. Repackaging/Overpacking				68																																								
ISOs	1	1	18	68	2	26	1	13	0.1	1	0	0	0	0	1	13	0.6	8	0	0	0	0	0	0	0.1	1	0.05	1	0.05	1	0	0	0.1	1	0.2	3	0.05	1	0	0	0	0	0	0
Boxes	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0	0	0	0.1	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0	0	0	0.1	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
7. Container Movements				15																																								
ISOs	1	0.3	3	10	1	3	0.5	2	0.5	2	0	0	0	0	0.2	1	0.6	2	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	4	0.16	1	5	1	2	0.5	1	0.5	1	0	0	0	0	0.2	0	0.6	1	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	0.6	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
8. Loading and Shipping				0																																								
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	0.5	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						*52*		*26*		*10*		*0*		*0*		*29*		*17*		*0*		*1*		*0*		*2*		*6*		*6*		*5*		*103*		*8*		*6*		*0*		*0*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	31	$9.68	$301
Normal Protective Clothing	change	4	$4.03	$17
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	0	$120	$0
Other Materials	each	0	$3.40	$0
NTS Truck Freight	shipment	0	$4,600	$0
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	0	$100	$0
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
WPRAP Processing (residues)	ton	0	$372	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$10.80	$0
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY		
Total Manhours	272	
Total Labor		**$10,635**
Total Materials		**$318**
Total Subcontracts		**$0**
Total Burial		**$0**
Total Cost		**$10,953**
Total Cost minus burial		**$10,953**

All Costs are stated in FY01 Dollars

Comments and Assumptions:
1. 4 metal boxes per ISO

Prepared by: Rodney O. Bell
Date Prepared: 08/13/2001

Control Team Review: _____

Project Review: _____

SECTION 5

5.0 RISK PLAN

Risk/Opportunity Identification and Analysis Form

Project: Low Level Waste		PBS Number: 11			Total Baseline Dollars (Minimum Case):			$11,786,746		
Evaluator: Rodney Bell	Date: 03/29/01	WBS Number: 1.1.M.E								
CAM: Buckley	Date:	Control Account Number: MMME (E2 - Residues to NTS and to SP7)				R1-D-085, R1-D-239, R1-D-655, R1-D-656				
Project Task	Risk and/or Opportunity	Potential Impact	Internal Or External Driver	Impact Cost $ (Maximum Case)	Risk Impact Level	Risk Probability %	Risk Probability Level	Probable Cost $ (Likeliest Case)	Risk Critical Value	Risk Handling Strategy
Residues to NTS - Internal										
Waste Characterization	Characterizations not performed in a timely manner to meet the schedule.	Project schedule delays	Internal	$100,000.00	2	25	2	$25,000.00	2	Accept Risk, communicate and coordinate schedule
Sampling	Sampling required for waste characterization in addition to the amount estimated.	Moderate to significant schedule delays and project cost growth.	Internal	$600,000.00	2	25	2	$150,000.00	2	Accept Risk, identify sampling needs, coordinate effort to meet project schedule
Waste Processing	Stop work due to equipment breakdown or manpower shortages.	Project temporary shut down.	Internal	$100,000.00	2	20	2	$20,000.00	2	Accept Risk, Spare parts inventory & lease agreements
Waste Processing	Stated assumptions exceeded for amount of liquids decanted, prohibited items, rejected containers, etc.	Project schedule delays	Internal	$400,000.00	2	25	2	$100,000.00	2	Accept Risk
Waste Processing & Shipment	Work incident of a nature significant to external entities.	Program shutdown with associated cost and schedule implications.	Internal	$600,000.00	2	10	2	60000	2	Accept Risk, perform work safely and in compliance with rules, regulations, & DOE Orders
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Residues to SP7 - Internal										
Waste Characterization	Characterizations not performed in a timely manner to meet the schedule.	Project schedule delays	Internal	$80,000.00	2	25	2	$20,000.00	2	Accept Risk, communicate and coordinate schedule
Sampling	Additional sampling required for waste characterization	Moderate to significant schedule delays and project cost growth	Internal	$240,000.00	2	25	2	$60,000.00	2	Accept Risk, identify sampling needs, coordinate effort to meet project schedule
Waste Placement on SP-7	Stated assumptions exceeded for amount of prohibited items, rejected containers, etc.	Project schedule delays	Internal	$400,000.00	2	25	2	$100,000.00	2	Accept Risk
Waste Placement on SP-7	Stop work due to adverse weather conditions.	Project temporary shut down	Internal	$80,000.00	2	10	2	$8,000.00	2	Accept Risk, Schedule work for the appropriate time of year

Risk/Opportunity Identification and Analysis Form

Project: Low Level Waste		PBS Number: 11			Total Baseline Dollars (Minimum Case):			$11,786,746		
Evaluator: Rodney Bell	Date: 03/29/01	WBS Number: 1.1.M.E								
CAM: Buckley	Date:	Control Account Number: MMME (E2 - Residues to NTS and to SP7)				R1-D-085 R1-D-239 R1-D-655		R1-D-656		
Project Task	Risk and/or Opportunity	Potential Impact	Internal Or External Driver	Impact Cost $ (Maximum Case)	Risk Impact Level	Risk Probability %	Risk Probability Level	Probable Cost $ (Likeliest Case)	Risk Critical Value	Risk Handling Strategy
Waste Placement on SP-7	Stop work due to equipment breakdown, or manpower shortages.	Project temporary shut down	Internal	$80,000.00	2	20	2	$16,000.00	2	Accept Risk, Spare parts inventory & lease agreements
Waste Placement on SP-7	Work incident of a nature significant to external entities.	Program shutdown with associated cost and schedule implications	Internal	$240,000.00	2	10	2	$24,000.00	2	Accept Risk, perform work safely and in compliance with rules, regulations, & DOE Orders
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			Total:	$4,168,200.00			Total:	$592,640.00		
Low Level Waste removal	Waste to WPRAP in containers for bulk processing (shredder)	Schedule acceleration and cost avoidance (xxx cu.ft.)	Internal	($1,200,000.00)	3	30	2	($360,000.00)	3	
Residues to NTS - External										
~~Shipment to NTS~~ **R1-D-656	~~Additional container types required for shipping.~~	~~Project cost and schedule growth.~~	~~External~~	~~$1,200,000.00~~	~~3~~	~~10~~	~~2~~	~~$120,000.00~~	~~2~~	
Shipment to NTS	NTS closure or change to the WAC.	Processing, treatment, packaging and shipment to another approved site.	External	$2,800,000.00	3	10	2	$280,000.00	2	
Residues to SP7 - External										
Waste Placement on SP-7	Envirocare closure or change to the WAC.	Processing, treatment, packaging and shipment to meet the NTS WAC	External	$2,800,000.00	3	10	2	$280,000.00	3	

WBS DICTIONARY
CONTROL ACCOUNT/CHARGE NUMBER

U.S. DEPARTMENT OF ENERGY
WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION

1. PROJECT TITLE	2. DATE OF CONTRACT
FEMP (DEFENSE)	12/01/2000

3. IDENTIFICATION NUMBER	4. INDEX LINE NO.
DE-AC24-01OH20115	84

5. WBS ELEMENT CODE	6. WBS ELEMENT TITLE
1.1.M.F	SOILS DISPOSITION

7. APPROVED CP NO.	8. DATE OF CHANGES
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/01/2000

9. SYSTEM DESIGN DESCRIPTION	10. BUDGET AND REPORTING NUMBER
CERCLA/ACA	EW05H3110

11. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Materials
Subcontracts
ODC's

b. TECHNICAL CONTENT:

This element provides for planning, coordination of characterization, processing, and management activities for disposition of low level waste (LLW) soils and pit waste, and associated containers, resulting from historical operations and the pre-ROD clean up of the FEMP. The soils and pit waste included are packaged and identified in the SWIFTS database and total 3,447 containers with 120,469 cubic feet. The anticipated final disposal path is to process this material which meets the waste acceptance criteria, through Soil Pile 7 (SP-7) to WPRAP and on to Envirocare, a commercial disposal site in Utah.

c. SCOPE OF WORK:

This element is for the placement of soils and soil like materials on SP-7 for ultimate disposal via WPRAP, to Envirocare of Utah. It involves planning, coordination of characterization, processing, and management activities for disposition of low level waste (LLW) soils, pit waste, and associated containers, resulting from historical operations and the pre-ROD clean up of the FEMP. The current inventory of waste soils and/or pit waste at the FEMP included in this work scope was all containerized prior to 12-01-00. The material has been reviewed to determine compliance with the Envirocare WAC, WPRAP operating requirements and the safety requirements for SP-7. Waste materials are located in the former process area of the FEMP, for the most part in the Plant 1 Pad area. Material is packaged in metal boxes, drums, roll off boxes, sea lands, and a few samples are placed on skids.

U.S. DEPARTMENT OF ENERGY
WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION

1. PROJECT TITLE	2. DATE OF CONTRACT
FEMP (DEFENSE)	12/01/2000

3. IDENTIFICATION NUMBER	4. INDEX LINE NO.
DE-AC24-01OH20115	84

5. WBS ELEMENT CODE	6. WBS ELEMENT TITLE
1.1.M.F	SOILS DISPOSITION

7. APPROVED CP NO.	8. DATE OF CHANGES
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/01/2000

9. SYSTEM DESIGN DESCRIPTION	10. BUDGET AND REPORTING NUMBER
CERCLA/ACA	EW05H3110

11. ELEMENT TASK DESCRIPTION

The steps to achieve disposition are to plan, prepare documents, characterize, receive approval to proceed (WAO), place material on an existing soil pile, and process excess containers and non-conforming materials.

The inventory consists of 3,447 containers with an estimated 108,466 cubic feet of soil planned in eleven campaigns, and 211 containers with an estimated 12,003 cubic feet of pit waste planned in two campaigns.

The scope of this task is to process the eleven campaigns of low level waste soil and 2 campaigns of pit waste to Envirocare, an offsite commercial disposal facility, in Utah. The inventory included in this work scope is detailed in SWIFTS reports.

The activities of planning, characterization, and processing (for prohibited or wastes requiring treatment) apply to all the waste material under this work package. The activities to address prohibited items include processes that are unique to the disposition paths for the particular item(s).

WORK SCOPE DEFINITION
(Control Account)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 1

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.M.F	SOILS DISPOSITION

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	MIKE SALISBURY - EXT. 4008	JIM BUCKLEY - EXT. 3232

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3110	WASTE MANAGEMENT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/2000 - 01/2003

12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ONE LINE)
MMMF	SOILS DISPOSITION

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Material
Subcontracts
ODCs

b. TECHNICAL CONTENT:

This control account provides for planning, coordination of characterization, processing, and management activities for disposition of low level waste (LLW) soils and pit waste, and associated containers, resulting from historical operations and the pre-ROD clean up of the FEMP. The soils and pit waste included are packaged and identified in the SWIFTS database and total 3,447 containers with 120,469 cubic feet. The anticipated final disposal path is to process this material which meets the waste acceptance criteria, through Soil Pile 7 (SP-7) to WPRAP and on to Envirocare, a commercial disposal site in Utah.

c. SCOPE OF WORK:

This control account is for the placement of soils and soil like materials on SP-7 for ultimate disposal via WPRAP, to Envirocare of Utah. It involves planning, coordination of characterization, processing, and management activities for disposition of low level waste (LLW) soils, pit waste, and associated containers, resulting from historical operations and the pre-ROD clean up of the FEMP. The current inventory of waste soils and/or pit waste at the FEMP included in this work scope was all containerized prior to 12-01-00. The material has been reviewed to determine compliance with the Envirocare WAC, WPRAP operating requirements and the safety requirements for SP-7. Waste materials are located in the former process area of the FEMP, for the most part

Project Manager	Control Account Manager	Control Team Manager

WORK SCOPE DEFINITION
(Control Account)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 2

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.M.F	SOILS DISPOSITION	
5. PERFORMING DIV/DEPARTMENT CODE	**6. ORIGINATOR NAME/PHONE**	**7. WBS ELEMENT MANAGER**
51	MIKE SALISBURY - EXT. 4008	JIM BUCKLEY - EXT. 3232
8. BUDGET AND REPORTING NUMBER	**9. BUDGET TITLE**	
EW05H3110	WASTE MANAGEMENT	

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/2000 - 01/2003

12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ONE LINE)
MMMF	SOILS DISPOSITION

14. ELEMENT TASK DESCRIPTION

in the Plant 1 Pad area. Material is packaged in metal boxes, drums, roll off boxes, sea lands, and a few samples are placed on skids.

The steps to achieve disposition are to plan, prepare documents, characterize, receive approval to proceed (WAO), place material on an existing soil pile, and process excess containers and non-conforming materials.

The inventory consists of 3,236 containers with an estimated 108,466 cubic feet of soil planned in eleven campaigns, and 211 containers with an estimated 12,003 cubic feet of pit waste planned in two campaigns.

The scope of this task is to process the eleven campaigns of low level waste soil and 2 campaigns of pit waste to Envirocare, an offsite commercial disposal facility, in Utah. The inventory included in this work scope is detailed in SWIFTS reports.

The activities of planning, characterization, and processing (for prohibited or wastes requiring treatment) apply to all the waste material under this work package. The activities to address prohibited items include processes that are unique to the disposition paths for the particular item(s).

d. WORK SPECIFICALLY EXCLUDED:

1) Additions to FEMP rolling stock made after the February 28, 2001 inventory will, upon completion of FEMP service, be free released under respective project budgets or excessed to another DOE site with the gaining site paying decontamination and transportation costs.
2) Non-contaminated yard scrap, rolling stock, materials, containers, etc. are processed through the excess process for free release and are not included in this work package
3) Burial fees for the NTS or Envirocare of Utah.
4) The maintenance work package will provide budget for replacements and repairs of general use equipment.
5) Yard scrap, rolling stock, or excess containers not included in the February

WORK SCOPE DEFINITION
(Control Account)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 3

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.M.F	SOILS DISPOSITION

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	MIKE SALISBURY - EXT. 4008	JIM BUCKLEY - EXT. 3232

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3110	WASTE MANAGEMENT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/2000 - 01/2003

12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ONE LINE)
MMMF	SOILS DISPOSITION

14. ELEMENT TASK DESCRIPTION

28, 2001 inventory.
6) Maintenance activities to maintain ROBs in usable condition.

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 1

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.M.F	SOILS DISPOSITION

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	MIKE SALISBURY - EXT. 4008	JIM BUCKLEY - EXT. 3232

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3110	WASTE MANAGEMENT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/2000 - 01/2003

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
MMMF1	SOILS DISPOSITION

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Material
Subcontracts
ODCs

b. TECHNICAL CONTENT:

This work package is for the placement of soils and soil like materials on SP-7 for ultimate disposal via WPRAP, to Envirocare of Utah. It involves planning, coordination of characterization, processing, and management activities for disposition of low level waste (LLW) soils, pit waste, and associated containers, resulting from historical operations and the pre-ROD clean up of the FEMP. The current inventory of waste soils and/or pit waste at the FEMP included in this work scope was all containerized prior to 12-01-00. The material has been reviewed to determine compliance with the Envirocare WAC, WPRAP operating requirements and the safety requirements for SP-7. Waste materials are located in the former process area of the FEMP, for the most part in the Plant 1 Pad area. Material is packaged in metal boxes, drums, roll off boxes, sea lands, and a few samples are placed on skids.

The steps to achieve disposition are to plan, prepare documents, characterize, receive approval to proceed (WAO), place material on an existing soil pile, and process excess containers and non-conforming materials.

c. SCOPE OF WORK:

This work package is for the placement of soils and soil like materials on Soil Pile 7, and its ultimate disposal via WPRAP, to Envirocare of Utah. It provides

Project Manager	Control Account Manager	Control Team Manager

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 2

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.M.F	SOILS DISPOSITION

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	MIKE SALISBURY - EXT. 4008	JIM BUCKLEY - EXT. 3232

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3110	WASTE MANAGEMENT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/2000 - 01/2003

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
MMMF1	SOILS DISPOSITION

14. ELEMENT TASK DESCRIPTION

planning, coordination of characterization, processing, and management activities for disposition of low level waste (LLW) soils and pit waste, and associated containers, resulting from historical operations and the pre-ROD clean up of the FEMP.

The inventory included in this work package is grouped into 11 campaigns of soils and 2 campaigns of Pit Waste, as detailed in the SWIFTS reports. The total volume of material is estimated at 120,469 cubic feet in 3,447 containers.

The vast majority of the inventory is located on the Plant 1 Pad. This Pad is a controlled area with containment walls and storm water run off collection system. Building 30 is adjacent to the pad and is utilized to stage material for thawing in support of winter operations.

Soil Pile 7 is located in the northwest corner of the former process area north of the Haul Road. Access to SP-7 is via either a gravel road along the northwest fence line or by reaching over the pad curb, and then across the paved Haul Road. SP-7 is an area equipped with a concrete curb and a drainage system. All drainage in the area is collected and processed through the AWWT facility prior to discharge off site.

This work package includes the following sub-tasks:

Planning - Includes procedure, baseline, schedule, and task order maintenance, procurement of supplies, containers and subcontractor support.

Characterization - Includes coordination with the Waste Characterization Department to perform a review of the characterization data to release waste material for disposal, provide field support to the placement activity to assure material compliance, and maintain supporting documentation for managing the disposition of wastes. Note: The activities are budgeted by the Waste Characterization, and Waste Acceptance Organization Departments.

Processing - Includes delivery of soil and soil-like materials for placement on Soil Pile 7, inspection of the material and resulting empty containers, placement of waste on SP-7, and disposition of empty containers.

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 3

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.M.F	SOILS DISPOSITION

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	MIKE SALISBURY - EXT. 4008	JIM BUCKLEY - EXT. 3232

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3110	WASTE MANAGEMENT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/2000 - 01/2003

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
MMMF1	SOILS DISPOSITION

14. ELEMENT TASK DESCRIPTION

d. WORK SPECIFICALLY EXCLUDED:

1) Transportation from the FEMP to Envirocare is provided by WPRAP. DOE funds disposal of soils and/or pit waste at Envirocare.
2) Functions provided from central organizations that are not budgeted by this project include: Waste Acceptance Organization, Waste Characterization, and NTS Compliance. Note: The project will budget for sampling activities.
3) Movement of material from the soil pile to WPRAP. This service to be provided and funded by the Soil and Disposal Facility Project and are not part of this work package.
4) Use of the soil and/or pit waste on SP-7 to blend down enriched nuclear materials to meet DOT requirements for off site shipment and disposal. The collection of soils and/or pit waste for this application would not impact this project, since the soils would be removed from SP-7 after placement. Such removal is not part of this project.
5) FEMP maintenance work package will provide budget for replacements and repairs of general use equipment used in the movement, collection, and processing of waste material and associated containers for this work package, such as the roll off box fleet, rolling stock, dumping attachments.

SECTION 6

1.0 NARRATIVE

1. PROJECT TITLE: WASTE MANAGEMENT	2. DATE: 09/10/01	3. PBS#: 11
4. WBS ELEMENT CODE: 1.1.M.F.	5. WBS ELEMENT TITLE: SOILS DISPOSITION	
6. CAM NAME/ PHONE: JIM BUCKLEY/ 3232	7. CAM SIGNATURE:	
8. ORIGINAL/ CHANGE SCOPE/ PER CP#:	9.CONTROL ACCOUNT: MMMF	

SECTION 6: MMMF – SOILS DISPOSITION

1.0 NARRATIVE

1.1 OVERVIEW

This work package provides for planning, coordination of characterization, processing, and management activities for disposition of low level waste (LLW) soils and pit waste, and associated containers, resulting from historical operations and the pre-ROD clean up of the FEMP. The soils and pit waste included are packaged and identified in the SWIFTS database and total 3,450 containers with 93,825 cubic feet. The anticipated final disposal path is to process this material which meets the waste acceptance criteria, through Soil Pile 7 (SP-7) to WPRAP and on to Envirocare, a commercial disposal site in Utah.

1.2 ASSUMPTIONS/EXCLUSIONS

1.2.1 Assumptions

1.2.1.1 General

- Site remediation by all FEMP projects proceeds utilizing Scenario 6.
- SP-7 requirements as defined by the safety basis documents, the Envirocare WAC, and the WPRAP process limits, remain constant during the performance of this project.
- Regulatory requirements remain unchanged during the baseline performance period.
- Weather impacts on field operations do not exceed what is typical for the FEMP.
- S/RID requirements and administrative burden remain the same or are reduced during the performance period.

1.2.1.2 Soils and Pit Waste

- Waste included in the inventory was packaged prior to 12-01-00, and includes soils and pit waste materials.

- Material is non-RCRA. Any material subsequently determined to be RCRA would be either transferred by change proposal to the Waste Treatment & Waste Storage (WT&WS) project or this charge number provided to WT&WS to disposition the material.

- Materials can be or are characterized and there is no requirement for any additional physical sampling. Existing process knowledge and sampling information, along with visual inspections, will fulfill the need for characterization information.

- Inventory in this project was selected for inclusion by use of a screening process performed by Waste Acceptance Organization (WAO), the SP-7 facility owner. Material has a high probability of being fully compliant with SP-7 requirements based on the characterization and waste acceptance reviews.

- Waste material rejected for non-compliance to SP-7 requirements will be approximately 25% and occur at SP-7 (or equivalent) during inspection and/or dumping operations. Rework will consist of size reduction and crushing metal containers to meet WPRAP/IT sizing requirements.

- Characterization information is accurate and no prohibited items will be found during the inspection/dumping operations. This is based on field experience from placement of over 600 containers on SP-7.

- SP-7 size limits for disposal will remain the same or be relaxed from the current limits of a maximum 10 inches on one dimension and 8 feet for the other two dimensions.

- SP-7 or an alternate equivalent location, remains a viable location to place low level waste soils and/or pit waste and WAO continues to be the Facility Owner.

- Waste containers after dumping will be inspected and verified as acceptable for use either as shipping containers, for on site staging and movements, or use inside other shipping containers such as ISOs. Containers not approved for any of these uses will be size reduced for disposal at SP-7, OSDF, NTS or other approved off site location. Size reduction will consist of crushing by the same equipment used to haul, load and dump the soils, and is included in the rate for dumping the soils.

- Waste materials in this work package do not require nuclear criticality controls.

- Containers of soils and/or pit waste destined to be dispositioned to Envirocare via the WPRAP contract will be placed on SP-7 or other approved location under this work scope.

- WPRAP operations and transportation activities are performed such that there are no impacts on this project's placement of waste materials on SP-7 or an equivalent.

1.2.2 Exclusions

- Transportation from the FEMP to Envirocare is provided by WPRAP. DOE funds disposal of soils and/or pit waste at Envirocare.

- Functions provided from central organizations that are not budgeted by this project include: Waste Acceptance Organization, Waste Characterization, and NTS Compliance. Note: The project will budget for sampling activities.

- Movement of material from the soil pile to WPRAP. This service to be provided and funded by the Soil and Disposal Facility Project and are not part of this work package.

- Use of the soil and/or pit waste on SP-7 to blend down enriched nuclear materials to meet DOT requirements for off site shipment and disposal. The collection of soils and/or pit waste for this application would not impact this project, since the soils would be removed from SP-7 after placement. Such removal is not part of this project.

- FEMP maintenance work package will provide budget for replacements and repairs of general use equipment used in the movement, collection, and processing of waste material and associated containers for this work package, such as the roll off box fleet, rolling stock, dumping attachments.

1.2.3 Government-Furnished Equipment/Services

- Envirocare Disposal based on DOE or Corps of Engineers contracts

- Disposal funds and funds transfer systems (e.g. interoffice work orders, etc)

- Nevada Test Site (NTS) Disposal Facility will be available to the FEMP and support the scheduled activities.

- Government furnished equipment will be provided as needed to support the project operations.

1.3 DRIVERS

Drivers are of two types, including events (or activities) that must occur as predecessor or contemporary to the project, as well as significant requirements that must be met in the execution of the project.

1.3.1 Events

- EPA acceptance of material types selected for disposal via SP-7.

- Soils and Disposal Facility Project continues to coordinate and fund movement of soils from SP-7 to the WPRAP contractor. The contractor continues to accept material from SP-7 for processing to Envirocare so that the holding capacity of SP-7, or an equivalent, is not exceeded.

1.3.2 Requirements

In addition to applicable elements from the Closure Contract S/RID, the following additional requirements significantly affect the project:

- Operable Unit 3 Record of Decision
- Envirocare of Utah contract specific Waste Acceptance Criteria (WAC)
- SP-7 Safety Basis Documentation
- WPRAP contractor operational limits

1.4 PROJECT PHYSICAL DESCRIPTION

This work package is organized under charge number MMMF1, with supporting structure in the form of subtasks and activities.

1.4.1 Task #1 - MMMF1 - Soils Disposition

This work package is for the placement of soils and soil like materials on SP-7 for ultimate disposal via WPRAP, to Envirocare of Utah. It involves planning, coordination of characterization, processing, and management activities for disposition of low level waste (LLW) soils, pit waste, and associated containers, resulting from historical operations and the pre-ROD clean up of the FEMP. The current inventory of waste soils and/or pit waste at the FEMP included in this work scope was all containerized prior to 12-01-00. The material has been reviewed to determine compliance with the Envirocare WAC, WPRAP operating requirements and the safety requirements for SP-7. Waste materials are located in the former process area of the FEMP, for the most part in the Plant 1 Pad area. Material is packaged in metal boxes, drums, roll off boxes, sea lands, and a few samples are placed on skids.

The steps to achieve disposition are to plan, prepare documents, characterize, receive approval to proceed (WAO), place material on an existing soil pile, and process excess containers and non-conforming materials.

This work package includes the following sub-tasks:

1) Planning

Planning, includes procedure, baseline, schedule, and task order maintenance; procurement of supplies, containers and subcontractor support.

2) Characterization

Characterization, includes coordination with the Waste Characterization Department to perform a review of the characterization data to release waste material for disposal, provide field support to the dumping activity to assure material compliance, and maintain supporting documentation for managing the disposition of wastes. Note: The activities are budgeted by the Waste Characterization, and Waste Acceptance Organization Departments.

3) Processing

Processing, includes delivery of soil and soil-like materials for placement on Soil Pile 7, inspection of the material and resulting empty containers, placement of waste on SP-7, and disposition of empty containers.

1.5 PROJECT PLAN/TECHNICAL SCOPE AND QUANTIFICATION

1.5.1 MMMF1 – Soils Disposition

This work package is for the placement of soils and soil like materials on Soil Pile 7, and its ultimate disposal via WPRAP, to Envirocare of Utah. It provides planning, coordination of characterization, processing, and management activities for disposition of low level waste (LLW) soils and pit waste, and associated containers, resulting from historical operations and the pre-ROD clean up of the FEMP.

The inventory included in this work package is grouped into 11 campaigns of soils and 2 campaigns of Pit Waste, as detailed in the SWIFTS reports and defined in Attachment VI. The total volume of material is estimated at 83,065 cubic feet of Soils and 10,760 cubic feet of Pit Waste. The soils are in various containers: 842 metal boxes, 2,394 drums and 3 type 888 skid type packages, for a total of 3,239 containers/packages. The Pit Waste is in 94 metal boxes and 117 drums, for a total of 211 containers.

The vast majority of the inventory is located on the Plant 1 Pad. This Pad is a controlled area with containment walls and storm water run off collection system. Building 30 is adjacent to the pad and is utilized to stage material for thawing in support of winter operations.

Soil Pile 7 is located in the northwest corner of the former process area north of the Haul Road. Access to SP-7 is via either a gravel road along the northwest fence line or by reaching over the pad curb, and then across the paved Haul Road. SP-7 is an area equipped with a concrete curb and a drainage system. All drainage in the area is collected and processed through the AWWT facility prior to discharge off site.

The activities of the project can be divided into groups such as planning, coordination of characterization, and processing.

1) Subtask #1 - Planning

1.1) Plan/Scope - Planning

- Screen inventory candidates; coordinate with WAO and Waste Characterization to perform candidate reviews for likely conformance to requirements by the LLW Project, Envirocare WAC, WPRAP operational requirements, and SP-7 safety documentation performed by WAO. Note: This scope is budgeted by WAO and Waste Characterization. (LLW, Waste Characterization, WAO)

- Waste volumes and number of containers is based on the SWIFTS database information and addresses containerized waste as of 12-01-00. (LLW)

- Pre-screening and characterization reviews will mean that the vast majority of the material will be acceptable for placement on SP-7. (WAO, LLW)

- Analyze inventory; group into campaigns of similar materials and/or processes, technical requirements and physical realities of the waste material in the field. (LLW)

- Prepare a Turnover Package. (LLW)

- Identify primary disposition paths for the waste. (LLW)

- Estimate cost based on campaigns of material; flow chart developed and annotated for each stream or group of streams; campaign estimates rolled up to charge number, control account and WBS levels. (LLW)

- Schedule activities by placing all the work on a detailed schedule with coding into six categories. These categories are planning, characterization, processing, packaging, shipping, and treatment. This allows the detailed schedule to be statused and the summary information to be transferred to the same categories on the baseline schedule at the charge number level. This process assures that only authorized work scope is performed in the field and that performance data is appropriately collected and reported. (LLW)

- Maintain performance/status tracking tools for this project and perform project execution oversight. (LLW)

- Perform general project support such as trouble shooting, training, procedures, task orders, safety analyses, technical safety board review, and DOT determinations. (LLW)

- Develop and approve the Task Order(s) following characterization, with appropriate approvals including H&S, LLW Project and SP-7 Facility Owner. (LLW)

1.2) Quantification - Planning

- Planning activities relate to the 3450 containers to be addressed. Containers are grouped into thirteen campaigns based on the approach to be used in processing. The final number of campaigns may change as work progresses so the project can utilize the most efficient approaches to characterization and field execution.

- Planning and characterization work 8-hour days, while operations work 10-hour days.

- Duration for planning activities are based upon document review cycles necessary to begin project. Parallel activities are included for the continuous review of inventory, development of task orders as needed and revisions of work plans.

- SSR activities are limited to the potential movement of containers directed to WPRAP instead of via placement on SP-7.

2) Subtask #2 - Characterization

2.1) Plan/Scope - Characterization

Coordinate waste characterization with WAO and WC. Work scope is budgeted by WAO and WC, and includes:

- Accept Turnover Package and process. (Waste Characterization)

- Conduct a Waste characterization review. (Waste Characterization)

- Prepare and publish a Compatibility Review and Release letter. (Waste Characterization)

- Review characterization documentation and conduct a WAO review, publish a PWID. (WAO)

2.2) Quantification – Characterization

- Each container must be reviewed both individually and in the context of its unique MEF.

- Planning and characterization work 8-hour days, while packaging and shipping work 10-hour days.

- Actual duration of planning will vary based on the complexity of the material and the number of containers in each campaign, with an average cycle of three weeks.

3) Subtask #3 - Processing

3.1) Plan/Scope - Processing

- Store materials on site prior to disposal. (LLW)

- Locate inventory and prepare facilities to perform the pulling, movement and storage operations per the Task Order. (LLW)

- Pull inventory, stage on Plant 1 Pad (and/or in buildings to thaw as needed seasonally). (LLW)

- Stage the waste in drums, metal boxes, sea lands, roll off boxes and other conveyances containing above-OSDF WAC soils and/or pit waste for placement on Soil Pile 7 (SP-7) or an equivalent location. (LLW)

- Open all containers for a visual inspection prior to placement. (LLW)

- Place material on soil pile; or dump material in a controlled area, load into a roll off box for conveyance, place material on soil pile, and grade pile as needed. (LLW)

- Sort containers as scrap or potential reuse. Scrap containers are expected to be 1% of those handled and they will be crushed and placed on SP-7. The requirement for size is 10 inches maximum in one direction, and 8 feet in any other dimension. (LLW)

- Remove acceptable empty containers to wood pile for repackaging/shipping operations, or to the pressure wash and inspection area if Type 7A containers. (LLW)

- Pressure wash, inspect and approve excess metal boxes for other application as needed to use as a shipping or conveyance containers. (LLW, Shipping Services)

- WAO budgets for, and provides oversight to identify material that is non-conformant due to size requirements and rework as needed. The requirement for size is 10 inches maximum in one direction, and 8 feet in any other dimension. All anticipated waste including all drums will be crushed to meet these criteria at the dumping location. (WAO, LLW)

3.2) Quantification - Processing

- Movement and dumping activity duration based on the rates per day of material processed as demonstrated in the field and on the Manpower spreadsheets supplied to estimating. Dumping rates: 25 drums/day; 15 boxes/day.

- Soil placement activity duration based on the rates per day of material processed as demonstrated in the field and on the Manpower spreadsheets supplied to estimating.

- Experience based assumption of overall 25% of containers will have material that will need size reduction rework. This will be crushing at the dumping location and the time is included in the dumping rate.

- Sorting of containers will identify units to be declared scrap or suitable for reuse. The reusable containers will be inspected and/or pressure washed and approved for use as on-site conveyances, internal packaging of waste shipments, or as shipping containers. The vast majority of the containers will be used as internal conveyances of trash inside sea land containers.

- Pit wastes are comprised of soil like materials.

- Pit waste destined to WPRAP will not require any action and will be delivered in their current state.

- Labor shipping crew established by Operations.

- Quantities based on original SWIFTS inventory as of 12-01-00, see Section 6. Support Data.

- Crew size and skill mix established with input from Operations and the Project Engineer. (See attached estimates)

- Rework will be performed at the dumping location and consist of crushing containers, typically drums, and oversize waste material.

- SP-7 size limits are a maximum 10 inches on one dimension and 8 feet for any other dimensions.

- Drums will be crushed and processed through the soil pile.

- PPE Anti-C's at four changes per day for direct labor for Sort and Package operations and regular clothing at four changes per day for direct labor for shipping.

4.0 ESTIMATE

This work package (MMMF) is comprised of one main process for movement of soil and "soil like" material to a pile for processing through WPRAP to Envirocare for disposal. See also estimate attachment.

Elements of Cost:
Labor, subcontracts, ODCs.

Estimate Assumptions
Labor
Quantities
Disposal
PPE
Work Specifically Excluded:

SECTION 6

2.0 SCHEDULE

Activity ID	Orig Dur	Baseline Early start	Baseline Early finish	Total Float	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
MMMILEEPA1	0		29MAY03*	1,421	◆COMPLETE SHIPMENT OF ALL LOW LEVEL LEGACY WASTES								
SOILS DISPOSITION													
MMMF1H000	418*	04DEC00	07JAN03	785	SOILS DISPOSITION SUMMARY								
MMMF16710	399	04DEC00	27NOV02	785	SOILS DISPOSITION - PLANNING								
MMMF16720	392	04DEC00	14NOV02	785	SOILS DISPOSITION - CHARACTERIZATION (Containers = 3,447)								
MMMF16750	398	10JAN01	07JAN03	785	SOILS DISPOSITION - SORT/DUMP Volume = 120,469 cu ft Tied to FHBB3L1550 IT Subcontract Load Out 01/05								
MMPBS11008	0		07JAN03	1,356	◆SOILS DISPOSITION COMPLETE								

Start Date 01DEC00 Finish Date 30SEP09 Data Date 01DEC00 Run Date 12SEP01 10:13	BLCF - MM01 Sheet 11 of 13 **FLUOR FERNALD, INC** **Waste Management Baseline Schedule #2**	Early Bar Progress Bar Critical Activity	Comment Ref: R1-D-559

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SECTION 6

3.0 MANPOWER PLANS

Manpower Planning Sheet (CR2)

MPS # 1MF02 SOILS DISPOSITION

	DRIVERS	START DATE	END DATE	TOT	FY 2001 Q1	Q2	Q3	Q4	FY 2002 Q1	Q2	Q3	Q4	FY 2003 Q1	Q2	Q3	Q4	FY 2004 Q1	Q2	Q3	Q4	FY 2005 Q1	Q2	Q3	Q4	FY 2006 Q1	Q2	Q3	Q4
206	ADMIN COMPLEX D&D	10/01/2004	07/03/2006																		xxx	xxx	xxx	xxx	xxx	xxx	xxx	x
207	EAST WAREHOUSE D&D	10/04/2004	12/14/2004																		xxx							
208	ELECTRICAL STATION D&D	01/03/2005	12/29/2005																			xxx	xxx	xxx	xxx			
209	PLANT 1 PHASE II D&D	10/04/2004	10/12/2005																		xxx	xxx	xxx	xxx	x			
216	Electrical Station (Garage/Heavy Equip. Bldg.)	01/10/2005	03/28/2005																			xxx						
217	Electrical Station (Main Electrical/Substations)	07/10/2006	09/28/2006																									xxx
218	General Sump Complex D&D	10/01/2001	01/07/2003						xxx	xxx	xxx	xxx	xxx	x														
219	General Sump (Elec. Power Center Bldg.)	04/01/2004	07/19/2004																xxx	x								
220	Plant 2 Complex D&D	10/01/2001	04/01/2004						xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	x									
221	Plant 3 Complex D&D	10/01/2001	12/10/2002						xxx	xxx	xxx	xxx	xxx															
222	Plant 8 Complex D&D	10/01/2001	06/26/2003						xxx	xxx	xxx	xxx	xxx	xxx	xxx													
223	Liquid Storage D&D	10/01/2002	03/31/2005										xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx						
224	Lab Complex D&D	10/01/2004	10/31/2005																		xxx	xxx	xxx	xxx	x			
225	Pilot Plant Complex D&D	10/01/2003	09/27/2005														xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx				
301	OSDF Summary Schedule	04/01/2004	12/23/2009																xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
411	AWWT Operations	10/02/2000	12/31/2009		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
502	WASTE PIT SHIP/DISPOSAL OPERATIONS	10/02/2000	08/01/2005		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xx				
601	Soils Excavation Project Summary	10/01/2003	12/31/2009														xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
705	SILOS 1, 2, & 3 CONSTRUCTION & CAT	04/01/2003	04/01/2005												xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	x					
707	SILOS 1, 2, & 3 OPERATIONS	10/03/2005	03/30/2007																						xxx	xxx	xxx	xxx
709	SILOS 1, 2, & 3 SAFE SHUTDOWN and D&D	04/02/2007	03/31/2008																									
801	Nuclear Materials Summary	10/02/2000	05/20/2002		xxx	xxx	xxx	xxx	xxx	xxx	xx																	
1001	Mixed Waste Summary	10/02/2000	09/30/2003		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx												
1101	Low Level Waste Summary	10/02/2000	09/30/2005		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx				

Craft Labor	Carpenter	0.80	0	0.1	0.1	0	0.1	0.1	0.2	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & H	Rad Engineer	0.10	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & H	Rad Tech	5.10	0.3	0.8	0.4	0.1	0.5	0.8	0.7	0.4	1.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & H	Safety Engineer	0.30	0	0	0	0.1	0	0.1	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & H	Safety Tech.	0.40	0.1	0	0	0	0.1	0.1	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
General Labor	Hazwat	10.30	0	0.9	1.6	0	0.8	1.9	2	0.7	2.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Procurement	Material Property Control Rep.	1.00	0	0.1	0.1	0	0.1	0.2	0.2	0.1	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Management	Project Mgr.	3.40	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Management	Tech/Program Support Rep.	0.80	0.1	0.1	0.1	0	0.1	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance	Project Support Manager	4.90	0	0.8	0.4	0	0.3	0.9	1	0.4	1.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transportation Labor	Heavy Equipment Operator	6.80	0	1.3	2.4	0	0.5	0.7	0.8	0.3	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Manpower Planning Sheet (CR2)

MPS # 1MF02 SOILS DISPOSITION

DRIVERS	START DATE	END DATE	FY 2007 Q1	FY 2007 Q2	FY 2007 Q3	FY 2007 Q4	FY 2008 Q1	FY 2008 Q2	FY 2008 Q3	FY 2008 Q4	FY 2009 Q1	FY 2009 Q2	FY 2009 Q3	FY 2009 Q4	FY 2010 Q1	FY 2010 Q2	FY 2010 Q3	FY 2010 Q4	FY 2011 Q1	FY 2011 Q2	FY 2011 Q3	FY 2011 Q4
206 ADMIN COMPLEX D&D	10/01/2004	07/03/2006																				
207 EAST WAREHOUSE D&D	10/04/2004	12/14/2004																				
208 ELECTRICAL STATION D&D	01/03/2005	12/29/2005																				
209 PLANT 1 PHASE II D&D	10/04/2004	10/12/2005																				
216 Electrical Station (Garage/Heavy Equip. Bld	01/10/2005	03/28/2005																				
217 Electrical Station (Main Electrical/Substation	07/10/2006	09/28/2006																				
218 General Sump Complex D&D	10/01/2001	01/07/2003																				
219 General Sump (Elec. Power Center Bldg.)	04/01/2004	07/19/2004																				
220 Plant 2 Complex D&D	10/01/2001	04/01/2004																				
221 Plant 3 Complex D&D	10/01/2001	12/10/2002																				
222 Plant 8 Complex D&D	10/01/2001	06/26/2003																				
223 Liquid Storage D&D	10/01/2002	03/31/2005																				
224 Lab Complex D&D	10/01/2004	10/31/2005																				
225 Pilot Plant Complex D&D	10/01/2003	09/27/2005																				
301 OSDF Summary Schedule	04/01/2004	12/23/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx							
411 AWWT Operations	10/02/2000	12/31/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx							
502 WASTE PIT SHIP/DISPOSAL OPERATION	10/02/2000	08/01/2005																				
601 Soils Excavation Project Summary	10/01/2003	12/31/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx							
705 SILOS 1, 2, & 3 CONSTRUCTION & CAT	04/01/2003	04/01/2005																				
707 SILOS 1, 2, & 3 OPERATIONS	10/03/2005	03/30/2007	xxx	xxx																		
709 SILOS 1, 2, & 3 SAFE SHUTDOWN and D	04/02/2007	03/31/2008			xxx	xxx	xxx	xxx														
801 Nuclear Materials Summary	10/02/2000	05/20/2002																				
1001 Mixed Waste Summary	10/02/2000	09/30/2003																				
1101 Low Level Waste Summary	10/02/2000	09/30/2005																				

Craft Labor	Carpenter	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Rad Engineer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Rad Tech	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Safety Engineer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Safety Tech.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
General Labor	Hazwat	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Procurement	Material Property Control Rep.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Management	Project Mgr.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Management	Tech/Program Support Rep.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance	Project Support Manager	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transportation Labor	Heavy Equipment Operator	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Manpower Planning Sheet (CR2)

MPS # 1MF02 SOILS DISPOSITION

DRIVERS			START DATE	END DATE	TOT	FY 2001 Q1	Q2	Q3	Q4	FY 2002 Q1	Q2	Q3	Q4	FY 2003 Q1	Q2	Q3	Q4	FY 2004 Q1	Q2	Q3	Q4	FY 2005 Q1	Q2	Q3	Q4	FY 2006 Q1	Q2	Q3	Q4
	Transportation Labor	Motor Vehicle Operator			7.00	0	1.4	0.8	0	0.5	1.2	1.2	0.5	1.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Transportation Labor	Transportation Laborer			0.90	0	0	0	0	0	0.3	0.3	0.1	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Waste Management	Waste Engineer			15.30	3.5	1.1	0.6	0.8	2.7	1	0.6	2.1	2.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RTR	QA/QC	QA Engineer			0.20	0	0	0	0.1	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				Sheet Totals:	57.30	4.40	7.00	6.90	1.50	6.10	7.80	7.60	5.30	10.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Manpower Planning Sheet (CR2)

MPS # 1MF02 SOILS DISPOSITION

DRIVERS	START DATE	END DATE	FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Transportation Labor	Motor Vehicle Operator		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transportation Labor	Transportation Laborer		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Waste Management	Waste Engineer		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QA/QC	QA Engineer		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Sheet Totals:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

SECTION 6

4.0 ESTIMATE

4.0 ESTIMATE

This work package (MMMF) is comprised of one main process for movement of soil and "soil like" material to a pile for processing through WPRAP to Envirocare for disposal. See also estimate attachment.

Elements of Cost:
Labor, subcontracts, ODCs.

Estimate Assumptions
Labor
Quantities
Disposal
PPE
Work Specifically Excluded:

MMMF1

SOILS DISPOSITION

09/07/2001
2:01 PM

PBS: OHFN11
WBS: 1.1.M.F
CTRL ACCT: MMMF
CHARGE NO: MMMF1
COMMENT NO: R1-F11-008

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: CRPNTR **CARPENTER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	73.0	177.0	69.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	73.0	250.0	319.0	319.0	319.0	319.0	319.0	319.0	319.0	319.0
Yr Total Cost:	2,261	5,770	2,382	0	0	0	0	0	0	0
Cum Total Cost:	2,261	8,031	10,413	10,413	10,413	10,413	10,413	10,413	10,413	10,413

Resource: HAZWAT **HAZWAT** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,131.3	2,349.0	1,023.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,131.3	3,480.4	4,504.0	4,504.0	4,504.0	4,504.0	4,504.0	4,504.0	4,504.0	4,504.0
Yr Total Cost:	32,571	71,185	32,856	0	0	0	0	0	0	0
Cum Total Cost:	32,571	103,756	136,612	136,612	136,612	136,612	136,612	136,612	136,612	136,612

Resource: HEOOPR **HEAVY EQUIP OPERATOR** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,629.3	1,021.0	347.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,629.3	2,650.4	2,998.0	2,998.0	2,998.0	2,998.0	2,998.0	2,998.0	2,998.0	2,998.0
Yr Total Cost:	51,259	33,811	12,193	0	0	0	0	0	0	0
Cum Total Cost:	51,259	85,070	97,263	97,263	97,263	97,263	97,263	97,263	97,263	97,263

Resource: INHTEC **INDUST HYGIENIST TEC** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	27.4	96.5	23.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	27.4	123.9	147.6	147.6	147.6	147.6	147.6	147.6	147.6	147.6
Yr Total Cost:	1,031	3,829	997	0	0	0	0	0	0	0
Cum Total Cost:	1,031	4,860	5,857	5,857	5,857	5,857	5,857	5,857	5,857	5,857

INCLUDES ESCALATION COSTS

09/07/2001
2:01 PM

PBS: OHFN11
WBS: 1.1.M.F
CTRL ACCT: MMMF
CHARGE NO: MMMF1
COMMENT NO: R1-F11-008

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: MAT300 **MATERIAL OBJCLASS300** **EOC:** MATERIAL
Res Dept: 951 **Overtime:** PPE **Class:** MAT

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Units:	12,092.0	18,113.0	7,862.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Units:	12,092.0	30,205.0	38,067.0	38,067.0	38,067.0	38,067.0	38,067.0	38,067.0	38,067.0	38,067.0
Yr Total Cost:	12,092	18,602	8,292	0	0	0	0	0	0	0
Cum Total Cost:	12,092	30,694	38,986	38,986	38,986	38,986	38,986	38,986	38,986	38,986

Resource: MPCREP **MATL PROP CTRL REP** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	108.2	251.1	87.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	108.2	359.3	447.0	447.0	447.0	447.0	447.0	447.0	447.0	447.0
Yr Total Cost:	3,496	8,542	3,161	0	0	0	0	0	0	0
Cum Total Cost:	3,496	12,038	15,200	15,200	15,200	15,200	15,200	15,200	15,200	15,200

Resource: MVOOPR **MOTOR VEHICLE OPER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	926.3	1,445.0	583.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	926.3	2,371.4	2,955.0	2,955.0	2,955.0	2,955.0	2,955.0	2,955.0	2,955.0	2,955.0
Yr Total Cost:	26,734	43,896	18,779	0	0	0	0	0	0	0
Cum Total Cost:	26,734	70,631	89,409	89,409	89,409	89,409	89,409	89,409	89,409	89,409

Resource: PJSMGR **PROJECT SUPPORT MGR** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	555.0	1,152.1	484.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	555.0	1,707.1	2,192.0	2,192.0	2,192.0	2,192.0	2,192.0	2,192.0	2,192.0	2,192.0
Yr Total Cost:	25,375	55,443	24,717	0	0	0	0	0	0	0
Cum Total Cost:	25,375	80,818	105,535	105,535	105,535	105,535	105,535	105,535	105,535	105,535

INCLUDES ESCALATION COSTS

09/07/2001
2:01 PM

PBS: OHFN11
WBS: 1.1.M.F
CTRL ACCT: MMMF
CHARGE NO: MMMF1
COMMENT NO: R1-F11-008

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: PRJMGR **PROJECT MANAGER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	514.0	618.7	101.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	514.0	1,132.7	1,234.0	1,234.0	1,234.0	1,234.0	1,234.0	1,234.0	1,234.0	1,234.0
Yr Total Cost:	45,824	58,067	10,070	0	0	0	0	0	0	0
Cum Total Cost:	45,824	103,892	113,962	113,962	113,962	113,962	113,962	113,962	113,962	113,962

Resource: QACENG **QA ENGINEER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	46.1	39.6	6.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	46.1	85.7	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0
Yr Total Cost:	2,119	1,915	324	0	0	0	0	0	0	0
Cum Total Cost:	2,119	4,033	4,357	4,357	4,357	4,357	4,357	4,357	4,357	4,357

Resource: RADENG **RAD ENGINEER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	14.3	30.0	11.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	14.3	44.4	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0
Yr Total Cost:	677	1,491	613	0	0	0	0	0	0	0
Cum Total Cost:	677	2,168	2,781	2,781	2,781	2,781	2,781	2,781	2,781	2,781

Resource: RADTEC **RAD TECH** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	537.3	1,008.5	456.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	537.3	1,545.8	2,002.0	2,002.0	2,002.0	2,002.0	2,002.0	2,002.0	2,002.0	2,002.0
Yr Total Cost:	18,310	36,177	17,335	0	0	0	0	0	0	0
Cum Total Cost:	18,310	54,487	71,822	71,822	71,822	71,822	71,822	71,822	71,822	71,822

INCLUDES ESCALATION COSTS

09/07/2001
2:01 PM

PBS: OHFN11
WBS: 1.1.M.F
CTRL ACCT: MMMF
CHARGE NO: MMMF1
COMMENT NO: R1-F11-008

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: S&HENG **SAFETY ENGINEER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	46.4	68.6	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	46.4	115.0	131.0	131.0	131.0	131.0	131.0	131.0	131.0	131.0
Yr Total Cost:	2,308	3,589	885	0	0	0	0	0	0	0
Cum Total Cost:	2,308	5,897	6,783	6,783	6,783	6,783	6,783	6,783	6,783	6,783

Resource: SERVSUB **SUBS** **EOC:** SUBCONTRACTORS
Res Dept: 951 **Overtime:** EQPT **Class:** SUB

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Units:	27,114.0	18,076.0	27,114.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Units:	27,114.0	45,190.0	72,304.0	72,304.0	72,304.0	72,304.0	72,304.0	72,304.0	72,304.0	72,304.0
Yr Total Cost:	27,114	18,564	28,598	0	0	0	0	0	0	0
Cum Total Cost:	27,114	45,678	74,276	74,276	74,276	74,276	74,276	74,276	74,276	74,276

Resource: TPSREP **TECH/PROG SUPT REP** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	90.7	161.1	49.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	90.7	251.8	301.0	301.0	301.0	301.0	301.0	301.0	301.0	301.0
Yr Total Cost:	4,712	8,810	2,852	0	0	0	0	0	0	0
Cum Total Cost:	4,712	13,522	16,374	16,374	16,374	16,374	16,374	16,374	16,374	16,374

Resource: TRNLAB **TRANSPORT LABORER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	5.0	352.0	108.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	5.0	357.0	465.0	465.0	465.0	465.0	465.0	465.0	465.0	465.0
Yr Total Cost:	123	9,144	2,972	0	0	0	0	0	0	0
Cum Total Cost:	123	9,268	12,239	12,239	12,239	12,239	12,239	12,239	12,239	12,239

INCLUDES ESCALATION COSTS

09/07/2001
2:01 PM

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

PBS: OHFN11
WBS: 1.1.M.F
CTRL ACCT: MMMF
CHARGE NO: MMMF1
COMMENT NO: R1-F11-008

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: WSTENG **WASTE ENGINEER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,579.4	2,779.2	1,219.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,579.4	4,358.6	5,578.0	5,578.0	5,578.0	5,578.0	5,578.0	5,578.0	5,578.0	5,578.0
Yr Total Cost:	80,599	149,277	69,376	0	0	0	0	0	0	0
Cum Total Cost:	80,599	229,876	299,252	299,252	299,252	299,252	299,252	299,252	299,252	299,252

GRAND TOTALS:

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	7,283.8	11,549.5	4,588.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	7,283.8	18,833.2	23,421.6	23,421.6	23,421.6	23,421.6	23,421.6	23,421.6	23,421.6	23,421.6
Yr Total Cost:	336,605	528,112	236,403	0	0	0	0	0	0	0
Cum Total Cost:	336,605	864,717	1,101,120	1,101,120	1,101,120	1,101,120	1,101,120	1,101,120	1,101,120	1,101,120

CAM_____ CONTROL TEAM_____

INCLUDES ESCALATION COSTS

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR SOIL DISPOSITION

PBS: 11 | Duration:
WBS: 1.1.M | Fiscal Year:
Control Account: MMMF

Project: Low Level Waste-SOILS SP7-MMMF1
Campaign: SOIL 1001

Quantity Basis (containers and volume): approximately 460 cu.ft. in 57 containers

Charge Number: MMMF1
CAM: Dave Wood

Containers for Off-site Shipment: 0 | 1 day = 10 mhrs | Make Entries In Yellow Shaded Areas Only
Total Containers minus ROBs: 57

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MLWRTPFTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	QA (QACENG) Req'd	QA Mhrs	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal. (S&HENG) Req'd	Safety Anal. Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning		11		220	0.02	2	0.02	2	0.02	2	0	0	0	0	0.04	4	0.01	1	0	0	0.05	5	0.00	0	0.01	1	0.01	1	0.01	1	0.05	5	1.00	106	0.05	5	0.05	5	0	0	0.75	79	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
3. Sampling/Visual Inspection		1.2	2	10	0	0	0	0	0	0	0	0	0	0	0	0	0.6	7	0	0	0	0	0	0	0.05	1	0	0	0	0	0	0	0.1	1	0	0	0.05	1	0	0	0	0	0	0
Assumed Number of Samples/Visuals:	57																																											
4. Characterization		15		285	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.9	285	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping				21																																								
ROBs	1	0.20	6	21	2	4	2	4	4	8	0	0	0.2	0	1	2	0.6	1	0	0	0.05	0	0.05	0	0.01	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	2	0	2	0	0	0	0	0	0.2	0	1	0	0.6	0	0	0	0.05	0	0.05	0	0.01	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
6. Repackaging/Overpacking				106																																								
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0.2	0	1	0	0.6	0	0	0	0.05	0	0	0	0.05	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	0	0	0	0	2	0	1	0	0.1	0	0	0	0.2	0	1	0	0.6	0	0	0	0.05	0	0	0	0.05	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	57	2	28	106	2	40	1	20	0.1	2	0	0	0.2	4	1	20	0.6	12	0	0	0	0	0	0	0.05	1	0.01	0	0.01	0	0	0	0.1	2	0.2	4	0.05	1	0	0	0	0	0	0
7. ROB Movements (assumes round trip for ROBs)																																												
ROBs	1	0.25	4	14	1	3	1	3	0.25	1	2	5	0	0	0.4	1	0.6	2	0	0	0	0	0	0	0.03	0	0.01	0	0.03	0	0	0	0.1	0	0.2	1	0.05	0	0	0	0	0	0	0
8. Container Movements				32																																								
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0	0	0	0.00	0	0.01	0	0.03	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0	0	0	0.00	0	0.01	0	0.03	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	57	1	9	32	1	10	0.5	5	0.5	5	0	0	0	0	0.4	4	0.6	6	0	0	0	0	0	0	0.00	0	0.01	0	0.03	0	0	0	0.1	1	0	0	0.05	1	0	0	0	0	0	0
9. Loading and Shipping				0																																								
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	1	0	0.6	0	1	0	0	0	0	0	0.13	0	0.01	0	0.03	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1.2	0	2	0	0	0	0	0	0.13	0	0.01	0	0.03	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1.2	0	2	0	0	0	0	0	0.13	0	0.01	0	0.03	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						59		34		18		5		4		31		29		0		5		0		2		1		2		5		395		10		8		0		79		0

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$3,800	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	36	$9.68	$350
Normal Protective Clothing	change	13	$4.03	$52
3 Vehicles-Moves Repack Dump	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
1 Vehicle for ROB Movements	day	0	$55	$14
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	0	$4,600	$0
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	0	$100	$0
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
Box turner	lease	0	$6,025	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$10.80	$0
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

* Includes two warehouse attendants in Loading and Shipping

WORKSHEET SUMMARY

Total Hours	688	
Total Labor		**$32,005**
Total Materials		**$416**
Total Subcontracts		**$0**
Total Burial		**$0**
Total Cost		**$32,420**
Total Cost minus burial		**$32,420**

All costs are stated in FY01 Dollars

Comments and Assumptions:
1. Charge Code = MLLS1
2. 50 drums = 1 ROB
3. ROBs used for hauling to SP7
4. Visual 25 drums per day

Prepared by: Hugh A. Clinger
Date Prepared: 05/22/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR SOIL DISPOSITION

PBS: 11
WBS: 1.1.M
Control Account: MMMF

Duration:
Fiscal Year:

Project: Low Level Waste
Campaign: SOIL 1002

Quantity Basis (containers and volume): approximately 304 cu.ft. in 38 containers

Containers for Off-site Shipment: 0
Total Containers minus ROBs: 38

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Charge Number: MMMF1
CAM: Dave Wood

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MLWRT/PPFTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	QA (QACENO) Req'd	QA Mhrs	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERK8) Req'd	Admin. Spt. Mhrs
1. Campaign Planning		10		217	0.02	2	0.02	2	0.02	2	0	0	0	0	0.04	4	0.01	1	0	0	0.05	5	0	0	0.01	1	0.01	1	0.01	1	0.05	5	1.00	104	0.05	5	0.05	5	0	0	0.75	78	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
3. Sampling/Visual Inspection Assumed Number of Samples/Visuals:	35	1.7	3	14	0	0	0	0	0	0	0	0	0	0	0	0	0.6	10	0	0	0	0	0	0	0.05	1	0	0	0	0	0	0	0.1	2	0	0	0.05	1	0	0	0	0	0	0
4. Characterization		15		285	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	1.9	285	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping				26																																								
ROBs	1	0.25	7	26	2	5	2	5	4	10	0	0	0.2	1	1	3	0.6	2	0	0	0.05	0	0.05	0	0.01	0	0.01	0	0.01	0	0	0	0.1	0	0.2	1	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	2	0	2	0	0	0	0	0	0.2	0	1	0	0.6	0	0	0	0.05	0	0.05	0	0.01	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
6. Repackaging/Overpacking				60																																								
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0.2	0	1	0	0.6	0	0	0	0.05	0	0	0	0.05	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	0	0	0	0	2	0	1	0	0.1	0	0	0	0.2	0	1	0	0.6	0	0	0	0.05	0	0	0	0.05	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	38	1.5	21	80	2	30	1	15	0.1	2	0	0	0.2	3	1	15	0.6	9	0	0	0	0	0	0	0.05	1	0.01	0	0.01	0	0	0	0.1	2	0.2	3	0.05	1	0	0	0	0	0	0
7. ROB Movements (assumes round trip for ROBs)																																												
ROBs	1	0.25	4	14	1	3	1	3	0.25	1	2	5	0	0	0.4	1	0.6	2	0	0	0	0	0	0	0.03	0	0.01	0	0.01	0	0	0	0.1	0	0.2	1	0.05	0	0	0	0	0	0	0
8. Container Movements				48																																								
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0	0	0	0.00	0	0.01	0	0.01	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0	0	0	0.00	0	0.01	0	0.01	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	38	1.5	14	48	1	15	0.5	8	0.5	8	0	0	0	0	0.4	6	0.6	9	0	0	0	0	0	0	0.00	0	0.01	0	0.01	0	0	0	0.1	2	0	0	0.05	1	0	0	0	0	0	0
9. Loading and Shipping				0																																								
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	1	0	0.6	0	1	0	0	0	0	0	0.13	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1.2	0	2	0	0	0	0	0	0.13	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1.2	0	2	0	0	0	0	0	0.13	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						55		32		22		5		4		29		32		0		5		0		2		1		1		5		394		9		8		0		78		0

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$3,800	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	31	$9.68	$304
Normal Protective Clothing	change	17	$4.03	$70
3 Vehicles-Moves Repack Dump	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
1 Vehicle for ROB Movements	day	0	$55	$14
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	0	$4,600	$0
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	0	$100	$0
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
Box turner	lease	0	$6,025	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$10.80	$0
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

* Includes two warehouse attendants in Loading and Shipping

WORKSHEET SUMMARY

Total Hours	682	
Total Labor		**$31,707**
Total Materials		**$388**
Total Subcontracts		**$0**
Total Burial		**$0**
Total Cost		**$32,095**
Total Cost minus burial		**$32,095**

All costs are stated in FY01 Dollars

Comments and Assumptions:
1. Charge Code = MLLS1
2. 50 drums = 1 ROB
3. ROBs used for hauling to SP7
4. Visual 25 drums per day

Prepared by: Hugh A. Clinger
Date Prepared: 05/22/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR SOIL DISPOSITION

PBS: 11
WBS: 1.1.M
Control Account: MMMF

Duration:
Fiscal Year:

Project: Low Level Waste-SOILS SP7-MMMF1

Campaign: RFD1001 - STP1 Soils

Charge Number: MMMF1
CAM: Dave Wood

Quantity Basis (containers and volume): approximately 34,400 cu.ft. in 328 containers

Containers for Off-site Shipment: 0
Total Containers minus ROBs: 328

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MLWRT/MPFTR) Req'd	Maintenance (MLWRT/MPFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	QA (QACENG) Req'd	QA (QACENG) Mhrs	WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning		13		278	0.02	3	0.02	3	0.02	3	0	0	0	0	0.04	5	0.01	1	0	0	0.05	7	0	0	0.01	1	0.01	2	0.01	1	0.05	7	1	133	0.05	7	0.05	7	0	0	0.75	100	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
3. Sampling/Visual Inspection Assumed Number of Samples/Visuals: 328		16	29	52	0	0	0	0	0	0	0	0	0	0	0	0	0.6	20	0	0	0	0	0	0	0.05	8	0	0	0	0	0	0	0.1	16	0	0	0.05	8	0	0	0	0	0	0
4. Characterization		15		75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	75	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping				1,629																																								
Metal Boxes	328	16	461	1629	2	320	2	320	4	640	0	0	0.2	32	1	160	0.6	96	0	0	0	0	0	0	0.01	1.60	0.01	2	0.01	2	0	0	0.1	16	0.2	32	0.05	8	0	0	0	0	0	0
Drums	0	0	0	0	2	0	2	0	0	0	0	0	0.2	0	1	0	0.6	0	0	0	0.05	0	0.05	0	0.01	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
6. Repackaging/Overpacking				0																																								
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0.2	0	1	0	0.6	0	0	0	0.05	0	0	0	0.05	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	0	0	0	0	2	0	1	0	0.1	0	0	0	0.2	0	1	0	0.6	0	0	0	0.05	0	0	0	0.05	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	2	0	1	0	0.1	0	0	0	0.2	0	1	0	0.6	0	0	0	0.05	0	0	0	0.05	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
7. ROB Movements (assumes round trip for ROBs)																																												
ROBs	0	0	0	0	1	0	1	0	0.25	0	2	0	0	0	0.4	0	0.6	0	0	0	0	0	0.5	0	0.03	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
8. Container Movements				697																																								
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0	0	0	0	0	0.01	0	0.01	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	328	22	198	697	1	220	0.5	110	0.5	110	0	0	0	0	0.4	88	0.6	132	0	0	0	0	0	0	0	0	0.01	2	0.01	2	0	0	0.1	22	0	0	0.05	11	0	0	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0	0	0	0	0	0.01	0	0.01	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
9. Loading and Shipping				0																																								
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	1	0	0.6	0	1	0	0	0	0	0	0.13	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1.2	0	2	0	0	0	0	0	0.13	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1.2	0	2	0	0	0	0	0	0.13	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						543		433		753		0		32		253		249		0		7		0		11		6		5		7		262		39		34		0		100		0

* Includes two warehouse attendants in Loading and Shipping

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	490	$9.68	$4,739
Normal Protective Clothing	change	198	$4.03	$798
3 Vehicles-Moves Repack Dump	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
1 Vehicle for ROB Movements	day	0	$55	$0
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	0	$4,600	$0
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	0	$100	$0
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
Box turner	lease	1	$9,038	$9,038
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$10.80	$0
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY		
Total Hours	2,731	
Total Labor		**$95,331**
Total Materials		**$5,537**
Total Subcontracts		**$9,038**
Total Burial		**$0**
Total Cost		**$109,907**
Total Cost minus burial		**$109,907**

All costs are stated in FY01 Dollars

Comments and Assumptions:
1. Recycle metal boxes
2. Visual 25 boxes per day ave.
3. Visual estimate based on remaining MBs at Bld 64/65 used for shielding
4. 32 boxes remaining for completion
5. Dump 15 boxes per day at SP7
6. WAO not included in estimate

Prepared by: Hugh A. Clinger
Date Prepared: 05/22/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR SOIL DISPOSITION

PBS: 11 | Duration:
WBS: 1.1.M | Fiscal Year:
Control Account: MMMF

Project: Low Level Waste-SOILS SP7-MMMF1

Campaign: RFD 1100 - MEF 2504

Charge Number: MMMF1
CAM: Dave Wood

Quantity Basis (containers and volume): approximately 1,160 cu.ft. in 145 containers

Containers for Off-site Shipment: 0
Total Containers minus ROBs: 145

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MILWRT/INPFTR) Req'd	Maintenance (MILWRT/INPFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	QA (QACENG) Req'd	QA (QACENG) Mhrs	WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning		11		239	0.02	2	0.02	2	0.02	2	0	0	0	0	0.04	5	0.01	1	0	0	0.05	6	0	0	0.01	1	0.01	1	0.01	1	0.05	6	1	115	0.05	6	0.05	6	0	0	0.75	86	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
3. Sampling/Visual Inspection Assumed Number of Samples/Visuals: 145		6	11	48	0	0	0	0	0	0	0	0	0	0	0	0	0.6	36	0	0	0	0	0	0	0.05	3	0	0	0	0	0	0	0.1	6	0	0	0.05	3	0	0	0	0	0	0
4. Characterization		15		285	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.9	285	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping				102																																								
ROBs	3	1	29	102	2	20	2	20	4	40	0	0	0.2	2	1	10	0.6	6	0	0	0	0	0	0	0.01	0	0.01	0	0.01	0	0	0	0.1	1	0.2	2	0.05	1	0	0	0	0	0	0
Drums	0	0	0	0	2	0	2	0	0	0	0	0	0.2	0	1	0	0.6	0	0	0	0.05	0	0.05	0	0.01	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
6. Repackaging/Overpacking				319																																								
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0.2	0	1	0	0.6	0	0	0	0.05	0	0	0	0.05	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	0	0	0	0	2	0	1	0	0.1	0	0	0	0.2	0	1	0	0.6	0	0	0	0.05	0	0	0	0.05	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	145	6	85	319	2	120	1	60	0.1	6	0	0	0.2	12	1	60	0.6	36	0	0	0	0	0	0	0.05	3	0.01	1	0.01	1	0	0	0.1	6	0.2	12	0.05	3	0	0	0	0	0	0
7. ROB Movements (assumes round trip for ROBs)																																												
ROBs	3	1	9	31	1	6	1	6	0.25	1	2	11	0	0	0.4	2	0.6	3	0	0	0	0	0	0	0.03	0	0.01	0	0.01	0	0	0	0.1	1	0.2	1	0.05	0	0	0	0	0	0	0
8. Container Movements				190																																								
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0	0	0	0	0	0.01	0	0.01	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0	0	0	0	0	0.01	0	0.01	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	145	6	54	190	1	60	0.5	30	0.5	30	0	0	0	0	0.4	24	0.6	36	0	0	0	0	0	0	0	0	0.01	1	0.01	1	0	0	0.1	6	0	0	0.05	3	0	0	0	0	0	0
9. Loading and Shipping				0																																								
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	1	0	0.6	0	1	0	0	0	0	0	0.13	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1.2	0	2	0	0	0	0	0	0.13	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1.2	0	2	0	0	0	0	0	0.13	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						*208*		*118*		*80*		*11*		*14*		*101*		*118*		*0*		*6*		*0*		*7*		*3*		*3*		*6*		*419*		*21*		*16*		*0*		*86*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$3,800	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	124	$9.68	$1,202
Normal Protective Clothing	change	63	$4.03	$253
3 Vehicles-Moves Repack Dump	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
1 Vehicle for ROB Movements	day	0	$55	$0
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	0	$4,600	$0
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	0	$100	$0
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
Box Turner	lease	0	$6,025	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$10.80	$0
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

* Includes two warehouse attendants in Loading and Shipping

WORKSHEET SUMMARY

Total Hours 1,215	
Total Labor	$49,621
Total Materials	$1,455
Total Subcontracts	$0
Total Burial	$0
Total Cost	$51,076
Total Cost minus burial	$51,076

All costs are stated in FY01 Dollars

Comments and Assumptions:

1. Drums dumped in ROBs prior to dumping (25 per day)
2. 50 drums per ROB
3. Dump 15 boxes per day at SP7

Prepared by: Hugh A. Clinger
Date Prepared: 02/28/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR SOIL DISPOSITION

PBS: 11 Duration:
WBS: 1.1.M Fiscal Year:
Control Account: MMMF

Project: Low Level Waste-SOILS SP7-MMMF1
Campaign: RFD 1103 - MEF 2164

Quantity Basis (containers and volume): approximately 30,975 cu.ft. in 295 containers

Charge Number: MMMF1
CAM: Dave Wood

Containers for Off-site Shipment: 0 1 day = 10 mhrs Make Entries in Yellow Shaded Areas Only
Total Containers minus ROBs: 295

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MILWRT/RPFTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	QA (QACENG) Req'd	QA Mhrs
1. Campaign Planning		13		271	0.02	3	0.02	3	0.02	3	0	0	0	0	0.04	5	0.01	1	0	0	0.05	6
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection		14.8	27	57	0	0	0	0	0	0	0	0	0	0	0	0	0.6	20	0	0	0.05	7
Assumed Number of Samples/Visuals:	295																					
4. Characterization		15		285	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping				1,509																		
Metal Boxes	295	14.8	425	1509	2	295	2	295	4	590	0	0	0.2	30	1	148	0.6	89	0	0	0.05	7
Drums	0	0	0	0	2	0	2	0	0	0	0	0	0.2	0	1	0	0.6	0	0	0	0.05	0
6. Repackaging/Overpacking				0																		
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0.2	0	1	0	0.6	0	0	0	0.05	0
Boxes	0	0	0	0	2	0	1	0	0.1	0	0	0	0.2	0	1	0	0.6	0	0	0	0.05	0
Drums	0	0	0	0	2	0	1	0	0.1	0	0	0	0.2	0	1	0	0.6	0	0	0	0.05	0
7. ROB Movements (assumes round trip for ROBs)																						
ROBs	0	0	0	0	1	0	1	0	0.25	0	2	0	0	0	0.4	0	0.6	0	0	0	0	0
8. Container Movements				390																		
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0
Metal Boxes	295	12.3	111	390	1	123	0.5	62	0.5	62	0	0	0	0	0.4	49	0.6	74	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0
9. Loading and Shipping				0																		
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	1	0	0.6	0	1	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1.2	0	2	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1.2	0	2	0	0	0
Total Manhours by Skill						*421*		*359*		*654*		*0*		*30*		*202*		*184*		*0*		*21*

Activity	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERK8) Req'd	Admin. Spt. Mhrs
1. Campaign Planning	0	0	0.01	1	0.01	1	0.01	1	0.05	6	1	130	0.05	6	0.05	6	0	0	0.75	97	0	0
2. SSR	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
3. Sampling/Visual Inspection	0	0	0.05	7	0	0	0	0	0	0	0.1	15	0	0	0.05	7	0	0	0	0	0	0
4. Characterization	0	0	0	0	0	0	0	0	0	0	1.9	285	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping																						
Metal Boxes	0	0	0.01	1	0.01	1	0.01	1	0	0	0.1	15	0.2	30	0.05	7	0	0	0	0	0	0
Drums	0.05	0	0.01	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
6. Repackaging/Overpacking																						
ISOs	0	0	0.05	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	0	0	0.05	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.05	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
7. ROB Movements (assumes round trip for ROBs)																						
ROBs	0.5	0	0.03	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
8. Container Movements																						
ISOs	0	0	0	0	0.01	0	0.01	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.01	1	0.01	1	0	0	0.1	12	0	0	0.05	6	0	0	0	0	0	0
Drums	0	0	0	0	0.01	0	0.01	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
9. Loading and Shipping																						
ISOs	0	0	0.13	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0.13	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.16	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		*0*		*10*		*4*		*4*		*6*		*456*		*36*		*27*		*0*		*97*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$3,800	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	451	$9.68	$4,370
Normal Protective Clothing	change	111	$4.03	$446
3 Vehicles Moves Repack Dump	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
1 Vehicle for ROB Movements	day	0	$55	$0
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	0	$4,600	$0
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	0	$100	$0
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
Box turner	lease	1	$9,038	$9,038
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$10.80	$0
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

* Includes two warehouse attendants in Loading and Shipping

WORKSHEET SUMMARY

Total Hours	2,511	
Total Labor		**$91,166**
Total Materials		**$4,816**
Total Subcontracts		**$9,038**
Total Burial		**$0**
Total Cost		**$105,020**
Total Cost minus burial		**$105,020**

All costs are stated in FY01 Dollars

Comments and Assumptions:
1. Recycle metal boxes
2. Box turner not included in estimate
3. Visual 15 metal boxes per day
4. Dump 15 boxes per day @ SP7

Prepared by: Hugh A. Clinger
Date Prepared: 05/22/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR SOIL DISPOSITION

PBS: 11 Duration:
WBS: 1.1.M Fiscal Year:
Control Account: MMMF

Project: Low Level Waste-SOILS SP7-MMMF1
Campaign:RFD 1106 - Soil, Asphalt, Con

Quantity Basis (containers and volume): approximately 7,350 cu.ft. in 70 containers

Charge Number: MMMF1
CAM: Dave Wood

Containers for Off-site Shipment: 0
Total Containers minus ROBs: 70

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MILWRT/PIPFTR) Req'd	Maintenance (MILWRT/PIPFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	QA (QACENG) Req'd	QA (QACENG) Mhrs	WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKB) Req'd	Admin. Spt. (CLERKB) Mhrs
1. Campaign Planning		11		224	0.02	2	0.02	2	0.02	2	0	0	0	0	0.04	4	0.01	1	0	0	0.05	5	0	0	0.01	1	0.01	1	0.01	1	0.05	5	1	107	0.05	5	0.05	5	0	0	0.75	80	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
3. Sampling/Visual Inspection Assumed Number of Samples/Visuals: 70		3.5	6	27	0	0	0	0	0	0	0	0	0	0	0	0	0.6	20	0	0	0	0	0	0	0.05	2	0	0	0	0	0	0	0.1	4	0	0	0.05	2	0	0	0	0	0	0
4. Characterization		15		285	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.9	285	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping				356																																								
Metal Boxes	70	3.5	101	356	2	70	2	70	4	140	0	0	0.2	7	1	35	0.6	21	0	0	0	0	0	0	0.01	0	0.01	0	0.01	0	0	0	0.1	4	0.2	7	0.05	2	0	0	0	0	0	0
Drums	0	0	0	0	2	0	2	0	0	0	0	0	0.2	0	1	0	0.6	0	0	0	0	0	0	0	0.01	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
6. Repackaging/Overpacking				0																																								
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0.2	0	1	0	0.6	0	0	0	0.05	0	0	0	0.05	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	0	0	0	0	2	0	1	0	0.1	0	0	0	0.2	0	1	0	0.6	0	0	0	0.05	0	0	0	0.05	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	2	0	1	0	0.1	0	0	0	0.2	0	1	0	0.6	0	0	0	0.05	0	0	0	0.05	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
7. ROB Movements (assumes round trip for ROBs)																																												
ROBs	0	0	0	0	1	0	1	0	0.25	0	2	0	0	0	0.4	0	0.6	0	0	0	0	0	0.5	0	0.03	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
8. Container Movements				92																																								
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0	0	0	0	0	0.01	0	0.01	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	70	2.9	26	92	1	29	0.5	15	0.5	15	0	0	0	0	0.4	12	0.6	17	0	0	0	0	0	0	0	0	0.01	0	0.01	0	0	0	0.1	3	0	0	0.05	1	0	0	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0	0	0	0	0	0.01	0	0.01	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
9. Loading and Shipping				0																																								
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	1	0	0.6	0	1	0	0	0	0	0	0.01	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1.2	0	2	0	0	0	0	0	0.01	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1.2	0	2	0	0	0	0	0	0.01	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						101		87		157		0		7		51		59		0		5		0		3		2		2		5		402		12		10		0		80		0

MATERIALS *	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	107	$9.68	$1,037
Normal Protective Clothing	change	26	$4.03	$105
3 Vehicles-Moves Repack Dump	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
1 Vehicle for ROB Movements	day	0	$55	$0
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	0	$4,600	$0
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	0	$100	$0
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
Box turner	lease	1 0	$9,038	$9,038
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$10.80	$0
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

* Includes two warehouse attendants in Loading and Shipping

WORKSHEET SUMMARY		
Total Hours	984	
Total Labor		$41,309
Total Materials		$1,142
Total Subcontracts		$9,038
Total Burial		$0
Total Cost		$51,489
Total Cost minus burial		$51,489

All costs are stated in FY01 Dollars

Comments and Assumptions:
1. Recycle metal boxes
2. Visual 25 metal boxes per day

Prepared by: Hugh A. Clinger
Date Prepared: 05/22/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR SOIL DISPOSITION

PBS: 11 | Duration:
WBS: 1.1.M | Fiscal Year:
Control Account: MMMF

Project: Low Level Waste-SOILS SP7-MMMF1
Campaign: RFD 1108 - Enriched Soil

Quantity Basis (containers and volume): approximately 1,408 cu.ft. in 176 containers

Charge Number: MMMF1
CAM: Dave Wood

Containers for Off-site Shipment: 0
Total Containers minus ROBs: 176

1 day = 10 mhrs

Make Entries In Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MLWRT/PPFTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	QA (QACENG) Req'd	QA Mhrs	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning		12		245	0.02	2	0.02	2	0.02	2	0	0	0	0	0.04	5	0.01	1	0	0	0.05	6	0	0	0.01	1	0.01	1	0.01	1	0.05	6	1.00	118	0.05	6	0.05	6	0	0	0.75	88	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
3. Sampling/Visual Inspection Assumed Number of Samples/Visuals: 176		7.8	14	36	0	0	0	0	0	0	0	0	0	0	0	1	0.6	[illegible]	0	0	0	0	0	0	0.05	4	0	0	0	0	0	0	0.1	8	0	0	0.05	4	0	0	0	0	0	0
4. Characterization		15		285	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.9	285	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping				81																																								
ROBs	4	0.8	23	81	2	16	2	16	4	32	0	0	0.2	2	1	8	0.6	[illegible]	0	0	0	0	0	0	0.01	0	0.01	0	0.01	0	0	0	0.1	1	0.2	2	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	2	0	2	0	0	0	0	0	0.2	0	1	0	0.6	0	0	0	0	0	0.05	0	0.01	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
6. Repackaging/Overpacking				372																																								
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0.2	0	1	0	0.6	0	0	0	0.05	0	0	0	0.05	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	0	0	0	0	2	0	1	0	0.1	0	0	0	0.2	0	1	0	0.6	0	0	0	0.05	0	0	0	0.05	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	176	7	99	372	2	140	1	70	0.1	7	0	0	0.2	14	1	70	0.6	42	0	0	0	0	0	0	0.05	4	0.01	1	0.01	1	0	0	0.1	7	0.2	14	0.05	4	0	0	0	0	0	0
7. ROB Movements (assumes round trip for ROBs)																																												
ROBs	4	2.0	35	113	1	20	1	20	0.25	5	2	40	0	0	0.4	8	0.6	12	0	0	0	0	0.5	0	0.03	1	0.03	1	0.01	0	0	0	0.1	2	0.2	4	0.05	1	0	0	0	0	0	0
8. Container Movements				222																																								
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0	0	0	0	0	0.01	0	0.01	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0	0	0	0	0	0.01	0	0.01	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	176	7.0	63	222	1	70	0.5	35	0.5	35	0	0	0	0	0.4	28	0.6	42	0	0	0	0	0	0	0	0	0.01	1	0.01	1	0	0	0.1	7	0	0	0.05	4	0	0	0	0	0	0
9. Loading and Shipping				0																																								
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	1	0	0.6	0	1	0	0	0	0	0	0.13	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1.2	0	2	0	0	0	0	0	0.13	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1.2	0	2	0	0	0	0	0	0.13	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						***248***		***143***		***81***		***40***		***16***		***119***		***122***		***0***		***6***		***0***		***9***		***3***		***3***		***6***		***427***		***25***		***18***		***0***		***88***		***0***

* Includes two warehouse attendants in Loading and Shipping

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	136	$9.68	$1,314
Normal Protective Clothing	change	98	$4.03	$393
3 Vehicles-Moves Repack Dump	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
1 Vehicle for ROB Movements	day	0	$55	$0
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	0	$4,600	$0
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	0	$100	$0
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
Box turner	lease	0	$6,025	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$10.80	$0
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY

Total Hours	1,355	
Total Labor		**$54,167**
Total Materials		**$1,707**
Total Subcontracts		**$0**
Total Burial		**$0**
Total Cost		**$55,874**
Total Cost minus burial		**$55,874**

All costs are stated in FY01 Dollars

Comments and Assumptions:
1. Dumped drums into ROB before transfer to SP-7
2. Liners not included in cost of estimate
3. Visual performed at dumping- 15 per day
4. Characterization upto 3 weeks
5. Dump 25 drums per day into ROB

Prepared by: Hugh A. Clinger
Date Prepared: 05/22/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR SOIL DISPOSITION

PBS: 11
WBS: 1.1.M
Control Account: MMMF

Duration:
Fiscal Year:

Project: Low Level Waste
Campaign: SOIL 1003

Quantity Basis (containers and volume): approximately 1,520 cu.ft. in 190 containers

Charge Number: MMMF1
CAM: Dave Wood

Containers for Off-site Shipment: 0
Total Containers minus ROBs: 190

1 day = 10 mhrs

Make Entries In Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MLWRT/PPFTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	QA (QACENG) Req'd	QA Mhrs
1. Campaign Planning		12		268	0.02	2	0.02	2	0.02	2	0	0	0	0	0.2	24	0.01	1	0	0	0.05	6
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection Assumed Number of Samples/Visuals: 190		8.8	42	34	0	0	0	0	0	0	0	0	0	0	0	0	0.6	20	0	0	0	0
4. Characterization		15		285	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping				81																		
ROBs	4	1	23	81	2	16	2	16	4	32	0	0	0.2	2	1	8	0.6	5	0	0	0	0
Drums	0	0	0	0	2	0	2	0	0	0	0	0	0.2	0	1	0	0.6	0	0	0	0.05	0
6. Repackaging/Overpacking				426																		
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0.2	0	1	0	0.6	0	0	0	0.05	0
Boxes	0	0	0	0	2	0	1	0	0.1	0	0	0	0.2	0	1	0	0.6	0	0	0	0.05	0
Drums	190	8	113	426	2	160	1	80	0.1	8	0	0	0.2	16	1	80	0.6	48	0	0	0	0
7. ROB Movements (assumes round trip for ROBs)																						
ROBs	4	2	32	113	1	20	1	20	0.25	5	2	40	0	0	0.4	8	0.6	12	0	0	0	0
8. Container Movements				254																		
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0
Drums	190	8	72	254	1	80	0.5	40	0.5	40	0	0	0	0	0.4	32	0.6	48	0	0	0	0
9. Loading and Shipping				0																		
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	1	0	0.6	0	1	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1.2	0	2	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1.2	0	2	0	0	0
Total Manhours by Skill						*278*		*158*		*87*		*40*		*18*		*152*		*134*		*0*		*6*

Activity	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning	0	0	0.01	1	0.01	1	0.01	1	0.05	6	1.00	119	0.05	6	0.05	6	0	0	0.75	89	0	0
2. SSR	0	0	0.00	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
3. Sampling/Visual Inspection Assumed Number of Samples/Visuals: 190	1	0	0.01	1	0	0	0	0	0	0	0.1	9	0	0	0.05	4	0	0	0	0	0	0
4. Characterization	0	0	0.00	0	0	0	0	0	0	0	1.9	285	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping																						
ROBs	0	0	0.01	0	0.01	0	0.01	0	0	0	0.1	1	0.2	2	0.05	0	0	0	0	0	0	0
Drums	0.05	0	0.01	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
6. Repackaging/Overpacking																						
ISOs	0	0	0.05	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	0	0	0.05	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.05	4	0.01	1	0.01	1	0	0	0.1	8	0.2	16	0.05	4	0	0	0	0	0	0
7. ROB Movements (assumes round trip for ROBs)																						
ROBs	0	0	0.03	1	0.01	0	0.03	1	0	0	0.1	2	0.2	4	0.05	1	0	0	0	0	0	0
8. Container Movements																						
ISOs	0	0	0.00	0	0.01	0	0.01	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0.00	0	0.01	0	0.01	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.00	0	0.01	1	0.01	1	0	0	0.1	8	0	0	0.05	4	0	0	0	0	0	0
9. Loading and Shipping																						
ISOs	0	0	0.13	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0.13	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.13	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		*0*		*7*		*3*		*3*		*6*		*432*		*28*		*20*		*0*		*89*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$3,800	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	178	$9.68	$1,724
Normal Protective Clothing	change	104	$4.03	$417
3 Vehicles Moves Repack Dump	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
1 Vehicle for ROB Movements	day	0	$55	$0
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	0	$4,600	$0
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	0	$100	$0
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
Box turner	lease	0	$6,025	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$10.80	$0
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

* Includes two warehouse attendants in Loading and Shipping

WORKSHEET SUMMARY

Total Hours	1,461	
Total Labor		**$57,976**
Total Materials		**$2,141**
Total Subcontracts		**$0**
Total Burial		**$0**
Total Cost		**$60,117**
Total Cost minus burial		**$60,117**

All costs are stated in FY01 Dollars

Comments and Assumptions:
1. Charge Code = MLLS1
2. 50 drums = 1 ROB
3. ROBs used for hauling to SP7
4. Visual 25 drums per day

Prepared by: Hugh A. Clinger
Date Prepared: 05/22/2001

Control Team Review:

Project Review:

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR SOIL DISPOSITION

PBS: 11
WBS: 1.1.M
Control Account: MMMF

Duration:
Fiscal Year:

Project: Low Level Waste
Campaign: SOIL 1004

Quantity Basis (containers and volume): approximately 1,289 cu.ft. in 149 containers

Charge Number: MMMF1
CAM: Dave Wood

Containers for Off-site Shipment: 0
Total Containers minus ROBs: 149

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MLWRT/PPFTR) Req'd	Maintenance (MLWRT/PPFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	QA (QACENG) Req'd	QA (QACENG) Mhrs
1. Campaign Planning		11		240	0.02	2	0.02	2	0.02	2	0	0	0	0	0.04	5	0.01	1	0	0	0.05	6
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection		6.7	12	33	0	0	0	0	0	0	0	0	0	0	0	0	0.6	20	0	0	0	0
Assumed Number of Samples/Visuals:	149																					
4. Characterization		15		285	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping				64																		
ROBs	3	0.6	17	61	2	12	2	12	4	24	0	0	0.2	1	1	6	0.6	4	0	0	0	0
Metal box	1	0.1	1	3	2	1	2	1	0	0	0	0	0.2	0	1	1	0.6	0	0	0	0.05	0
6. Repackaging/Overpacking				319																		
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0.2	0	1	0	0.6	0	0	0	0.05	0
Boxes	0	0	0	0	2	0	1	0	0.1	0	0	0	0.2	0	1	0	0.6	0	0	0	0.05	0
Drums	148	6	85	319	2	120	1	60	0.1	6	0	0	0.2	12	1	60	0.6	36	0	0	0	0
7. ROB Movements (assumes round trip for ROBs)																						
ROBs	3	1	9	32	1	6	1	6	0.25	1	2	11	0	0	0.4	2	0.6	3	0	0	0	0
8. Container Movements				198																		
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0
Metal Boxes	1	0.3	2	8	1	3	0.5	1	0.5	1	0	0	0	0	0.4	1	0.6	2	0	0	0	0
Drums	148	6	54	190	1	60	0.5	30	0.5	30	0	0	0	0	0.4	24	0.6	36	0	0	0	0
9. Loading and Shipping				0																		
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	1	0	0.6	0	1	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1.2	0	2	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1.2	0	2	0	0	0
Total Manhours by Skill						*203*		*112*		*65*		*11*		*13*		*98*		*182*		*0*		*6*

Activity	WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning	0.00	0	0.01	1	0.01	1	0.01	1	0.05	6	1.00	115	0.05	6	0.05	6	0	0	0.75	86	0	0
2. SSR	0	0	0.00	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
3. Sampling/Visual Inspection	0	0	0.05	3	0	0	0	0	0	0	0.1	7	0	0	0.05	3	0	0	0	0	0	0
4. Characterization	0	0	0.00	0	0	0	0	0	0	0	1.9	285	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping																						
ROBs	0	0	0.01	0	0.01	0	0.01	0	0	0	0.1	1	0.2	1	0.05	0	0	0	0	0	0	0
Metal box	0.05	0	0.01	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
6. Repackaging/Overpacking																						
ISOs	0	0	0.05	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	0	0	0.05	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.05	3	0.01	1	0.01	1	0	0	0.1	6	0.2	12	0.05	3	0	0	0	0	0	0
7. ROB Movements (assumes round trip for ROBs)																						
ROBs	0	0	0.03	0	0.03	0	0.03	0	0	0	0.1	1	0.2	1	0.05	0	0	0	0	0	0	0
8. Container Movements																						
ISOs	0	0	0.00	0	0.01	0	0.01	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0.00	0	0.01	0	0.01	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.00	0	0.01	1	0.01	1	0	0	0.1	6	0	0	0.05	3	0	0	0	0	0	0
9. Loading and Shipping																						
ISOs	0	0	0.13	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0.13	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.13	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		*0*		*8*		*3*		*3*		*6*		*420*		*20*		*16*		*0*		*86*		*0*

* Includes two warehouse attendants in Loading and Shipping

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$3,800	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	115	$9.68	$1,111
Normal Protective Clothing	change	65	$4.03	$262
3 Vehicles-Moves Repack,Dump	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
1 Vehicle for ROB Movements	day	0	$55	$0
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	0	$4,600	$0
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	0	$100	$0
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
Box turner	lease	1	$9,038	$9,038
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$10.80	$0
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY

Total Hours	1,172	
Total Labor		**$48,304**
Total Materials		**$1,373**
Total Subcontracts		**$9,038**
Total Burial		**$0**
Total Cost		**$58,715**
Total Cost minus burial		**$58,715**

All costs are stated in FY01 Dollars

Comments and Assumptions:
1. Charge Code = MLLS1
2. 50 drums = 1 ROB
3. ROBs used for hauling to SP7
4. Metal boxes recycled
5. Visual 25 drums or metal boxes per day

Prepared by: Hugh A. Clinger
Date Prepared: 05/22/2001

Control Team Review:

Project Review:

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR SOIL DISPOSITION

PBS: 11
WBS: 1.1.M
Control Account: MMMF

Duration:
Fiscal Year:

Project: Low Level Waste
Campaign: SOIL 1005

Quantity Basis (containers and volume): approximately 4530 cu.ft. in 250 containers

Containers for Off-site Shipment: 0
Total Containers minus ROBs: 250

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Charge Number: MMMF1
CAM: Dave Wood

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MLWRT/PPFTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	QA (QACENG) Req'd	QA Mhrs	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning		13		261	0.02	3	0.02	3	0.02	3	0	0	0	0	0.04	5	0.01	1	0	0	0.05	6	0	0	0.01	1	0.01	1	0.01	1	0.05	6	1.00	125	0.05	6	0.05	6	0	0	0.75	94	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
3. Sampling/Visual Inspection Assumed Number of Samples/Visuals:	250	10.7	19	41	0	0	0	0	0	0	0	0	0	0	0	0	0.6	[illegible]	0	0	0	0	0	0	0.05	5	0	0	0	0	0	0	0.1	11	0	0	0.05	5	0	0	0	0	0	0
4. Characterization		15		285	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	1.9	285	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping				173																																								
ROBs	5	0.4	12	41	2	8	2	8	4	16	0	0	0.2	1	1	4	0.6	[illegible]	0	0	0	0	0	0	0.01	0	0.01	0	0.01	0	0	0	0.1	0	0.2	1	0.05	0	0	0	0	0	0	0
Metal boxes	26	1.3	37	132	2	26	2	26	4	52	0	0	0.2	1	1	13	0.6	8	0	0	0	0	0	0	0.01	0	0.01	0	0.01	0	0	0	0.1	1	0.2	3	0.05	1	0	0	0	0	0	0
6. Repackaging/Overpacking				479																																								
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0.2	0	1	0	0.6	0	0	0	0.05	0	0	0	0.05	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	0	0	0	0	2	0	1	0	0.1	0	0	0	0.2	0	1	0	0.6	0	0	0	0.05	0	0	0	0.05	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	224	9	127	479	2	180	1	90	0.1	9	0	0	0.2	18	1	90	0.6	54	0	0	0	0	0	0	0.05	5	0.01	1	0.01	1	0	0	0.1	9	0.2	18	0.05	5	0	0	0	0	0	0
7. ROB Movements (assumes round trip for ROBs)																																												
ROBs	5	2	32	114	1	20	1	20	0.25	5	2	40	0	0	0.4	8	0.6	12	0	0	0	0	0	0	0.03	1	0.03	1	0.03	1	0	0	0.1	2	0.2	4	0.05	1	0	0	0	0	0	0
8. Container Movements				317																																								
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0	0	0	0.00	0	0.01	0	0.01	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	26	1	9	32	1	10	0.5	5	0.5	5	0	0	0	0	0.4	4	0.6	6	0	0	0	0	0	0	0.00	0	0.01	0	0.01	0	0	0	0.1	1	0	0	0.05	1	0	0	0	0	0	0
Drums	224	9	81	285	1	90	0.5	45	0.5	45	0	0	0	0	0.4	36	0.6	54	0	0	0	0	0	0	0.00	0	0.01	1	0.01	1	0	0	0.1	9	0	0	0.05	5	0	0	0	0	0	0
9. Loading and Shipping				0																																								
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	1	0	0.6	0	1	0	0	0	0	0	0.13	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1.2	0	2	0	0	0	0	0	0.13	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1.2	0	2	0	0	0	0	0	0.13	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						*337*		*197*		*135*		*40*		*21*		*160*		*157*		*0*		*6*		*0*		*12*		*4*		*4*		*6*		*443*		*32*		*23*		*0*		*94*		*0*

* Includes two warehouse attendants in Loading and Shipping

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$3,600	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	195	$9.68	$1,889
Normal Protective Clothing	change	122	$4.03	$490
3 Vehicles-Moves Repack Dump	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
1 Vehicle for ROB Movements	day	0	$55	$0
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	0	$4,600	$0
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	0	$100	$0
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
Box turner	lease	1	$9,038	$9,038
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$10.80	$0
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY

Total Hours	1,670	
Total Labor		**$64,804**
Total Materials		**$2,378**
Total Subcontracts		**$9,038**
Total Burial		**$0**
Total Cost		**$76,220**
Total Cost minus burial		**$76,220**

All costs are stated in FY01 Dollars

Comments and Assumptions:
1. Charge Code = ABCP2, MLLS1
2. 50 drums = 1 ROB
3. ROBs used for hauling to SP7
4. Metal boxes recycled
5. Visual 25 drums or metal boxes per day

Prepared by: Hugh A. Clinger
Date Prepared: 02/28/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR SOIL DISPOSITION

PBS: 11
WBS: 1.1.M
Control Account: MMMF

Duration:
Fiscal Year:

Project: Low Level Waste
Campaign: WPRP 1001

Quantity Basis (containers and volume): approximately 25,070 cu.ft. in 1,538 containers

Charge Number: MMMF1
CAM: Dave Wood

Containers for Off-site Shipment: 0
Total Containers minus ROBs: 1,538

1 day = 10 mhrs

Make Entries In Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MLWRT/PPFTR) Req'd	Maintenance (MLWRT/PPFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	QA (QACENG) Req'd	QA (QACENG) Mhrs	WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning		25		530	0.02	5	0.02	5	0.02	5	0	0	0	0	0.04	10	0.01	3	0	0	0.05	13	0	0	0.01	3	0.01	3	0.01	3	0.05	13	1.00	254	0.05	13	0.05	13	0	0	0.75	190	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
3. Sampling/Visual Inspection Assumed Number of Samples/Visuals:	1,538	63	113	146	0	0	0	0	0	0	0	0	0	0	0	0	0.6	20	0	0	0	0	0	0	0.05	32	0	0	0	0	0	0	0.1	63	0	0	0.05	32	0	0	0	0	0	0
4. Characterization		15		285	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	1.9	285	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping				1,227																																								
Metal Boxes	125	6.25	180	637	2	125	2	125	4	250	0	0	0.2	13	1	63	0.6	38	0	0	0	0	0	0	0.01	1	0.01	1	0.01	1	0	0	0.1	6	0.2	13	0.05	3	0	0	0	0	0	0
ROBs	29	5.8	167	590	2	116	2	116	4	232	0	0	0.2	12	1	58	0.6	35	0	0	0	0	0	0	0.01	1	0.01	1	0.01	1	0	0	0.1	6	0.2	12	0.05	3	0	0	0	0	0	0
6. Repackaging/Overpacking				3,092																																								
ISOs	1	1.5	21	81	2	30	1	15	0.1	2	0	0	0.2	3	1	15	0.6	9	0	0	0.05	1	0	0	0.05	1	0.01	0	0.01	0	0	0	0.1	2	0.2	3	0.05	1	0	0	0	0	0	0
Boxes	0	0	0	0	2	0	1	0	0.1	0	0	0	0.2	0	1	0	0.6	0	0	0	0.05	0	0	0	0.05	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	1,416	56.6	798	3011	2	1132	1	566	0.1	57	0	0	0.2	113	1	566	0.6	340	0	0	0	0	0	0	0.05	28	0.01	6	0.01	6	0	0	0.1	57	0.2	113	0.05	28	0	0	0	0	0	0
7. ROB Movements (assumes round trip for ROBs)																																												
ROBs	29	15	236	851	1	150	1	150	0.25	38	2	300	0	0	0.4	60	0.6	90	0	0	0	0	0	0	0.03	4	0.03	4	0.03	4	0	0	0.1	15	0.2	30	0.05	8	0	0	0	0	0	0
8. Container Movements				726																																								
ISOs	1	0.2	2	6	1	2	0.5	1	0.5	1	0	0	0	0	0.4	1	0.6	1	0	0	0	0	0	0	0.00	0	0.01	0	0.01	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	121	5	45	159	1	50	0.5	25	0.5	25	0	0	0	0	0.4	20	0.6	30	0	0	0	0	0	0	0.00	0	0.01	1	0.01	1	0	0	0.1	5	0	0	0.05	3	0	0	0	0	0	0
Drums	1,416	17.7	159	561	1	177	0.5	89	0.5	89	0	0	0	0	0.4	71	0.6	106	0	0	0	0	0	0	0.00	0	0.01	2	0.01	2	0	0	0.1	18	0	0	0.05	9	0	0	0	0	0	0
9. Loading and Shipping				0																																								
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	1	0	0.6	0	1	0	0	0	0	0	0.13	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1.2	0	2	0	0	0	0	0	0.13	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1.2	0	2	0	0	0	0	0	0.13	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						*1,787*		*1,092*		*697*		*300*		*140*		*863*		*671*		*0*		*13*		*0*		*68*		*15*		*16*		*13*		*710*		*183*		*98*		*0*		*190*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	1280	$9.68	$12,387
Normal Protective Clothing	change	442	$4.03	$1,783
3 Vehicles Moves Repack Dump	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
1 Vehicle for ROB Movements	day	0	$55	$0
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	0	$4,600	$0
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	0	$100	$0
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
Box turner	lease	1	$9,038	$9,038
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$10.80	$0
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

* Includes two warehouse attendants in Loading and Shipping

WORKSHEET SUMMARY

Total Hours	6,857	
Total Labor		**$238,939**
Total Materials		**$14,170**
Total Subcontracts		**$9,038**
Total Burial		**$0**
Total Cost		**$262,146**
Total Cost minus burial		**$262,146**

All costs are stated in FY01 Dollars

Comments and Assumptions:
1. 5 metal boxes = 1 ROB
2. 50 drums = 1 ROB
3. ROBs used for hauling to SP7
4. Metal boxes recycled
5. Box turner not included in estimate
6. Visual 25 drums or metal boxes per day
7. 888 included in metal box count

Prepared by: Hugh A. Clinger
Date Prepared: 05/22/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR SOIL DISPOSITION

PBS: 11
WBS: 1.1.M
Control Account: MMMF

Duration:
Fiscal Year:

Charge Number: MMMF1
CAM: Dave Wood

Project: Low Level Waste

Campaign: PITW 1001 - Pit Soil

Quantity Basis (containers and volume): approximately 9,755 cu.ft. in 116 containers

Containers for Off-site Shipment: 0
Total Containers minus ROBs: 116

1 day = 10 mhrs

Make Entries In Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MILWRT/PPFTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	QA (QACENG) Req'd	QA Mhrs
1. Campaign Planning		11		233	0.02	2	0.02	2	0.02	2	0	0	0	0	0.04	4	0.01	1	0	0	0.05	6
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection		5.8	10	29	0	0	0	0	0	0	0	0	0	0	0	0	0.6	20	0	0	0	0
Assumed Number of Samples/Visuals:	116																					
4. Characterization		15		285	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping				489																		
Metal Boxes	91	4.6	132	468	2	92	2	92	4	184	0	0	0.2	9	1	46	0.6	28	0	0	0	0
ROBs	1	0.2	6	20	2	4	2	4	4	8	0	0	0.2	0	1	2	0.6	1	0	0	0.05	0
6. Repackaging/Overpacking				53																		
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0.2	0	1	0	0.6	0	0	0	0.05	0
Boxes	0	0	0	0	2	0	1	0	0.1	0	0	0	0.2	0	1	0	0.6	0	0	0	0.05	0
Drums	25	1.0	14	53	2	20	1	10	0.1	1	0	0	0.2	2	1	10	0.6	6	0	0	0	0
7. ROB Movements (assumes round trip for ROBs)																						
ROBs	1	0.25	4	14	1	3	1	3	0.25	1	2	5	0	0	0.4	1	0.6	2	0	0	0	0
8. Container Movements				128																		
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0
Metal Boxes	91	3.8	34	120	1	38	0.5	19	0.5	19	0	0	0	0	0.4	15	0.6	23	0	0	0	0
Drums	25	0.25	2	8	1	3	0.5	1	0.5	1	0	0	0	0	0.4	1	0.6	2	0	0	0	0
9. Loading and Shipping				0																		
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	1	0	0.6	0	1	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1.2	0	2	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1.2	0	2	0	0	0
Total Manhours by Skill						*161*		*131*		*216*		*5*		*12*		*80*		*82*		*0*		*6*

Activity	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning	0	0	0.01	1	0.01	1	0.01	1	0.05	6	1.00	112	0.05	6	0.05	6	0	0	0.75	84	0	0
2. SSR	0	0	0.00	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
3. Sampling/Visual Inspection	0	0	0.01	1	0	0	0	0	0	0	0.1	6	0	0	0.05	3	0	0	0	0	0	0
Assumed Number of Samples/Visuals: 116																						
4. Characterization	0	0	0.00	0	0	0	0	0	0	0	1.9	285	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping																						
Metal Boxes	0	0	0.01	0	0.01	0	0.01	0	0	0	0.1	5	0.2	9	0.05	2	0	0	0	0	0	0
ROBs	0	0	0.01	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
6. Repackaging/Overpacking																						
ISOs	0	0	0.05	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	0	0	0.05	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.05	1	0.01	0	0.01	0	0	0	0.1	1	0.2	2	0.05	1	0	0	0	0	0	0
7. ROB Movements (assumes round trip for ROBs)																						
ROBs	0	0	0.03	0	0.03	0	0.03	0	0	0	0.1	0	0.2	1	0.05	0	0	0	0	0	0	0
8. Container Movements																						
ISOs	0	0	0.00	0	0.01	0	0.01	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0.00	0	0.01	0	0.01	0	0	0	0.1	4	0	0	0.05	2	0	0	0	0	0	0
Drums	0	0	0.00	0	0.01	0	0.01	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
9. Loading and Shipping																						
ISOs	0	0	0.13	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0.13	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.13	0	0.01	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		*0*		*3*		*2*		*2*		*6*		*413*		*18*		*14*		*0*		*84*		*0*

* Includes two warehouse attendants in Loading and Shipping

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	163	$9.68	$1,576
Normal Protective Clothing	change	40	$4.03	$163
3 Vehicles-Moves Repack Dump	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
1 Vehicle for ROB Movements	day	0	$55	$14
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	0	$4,600	$0
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	0	$100	$0
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
Box turner	lease	1	$9,038	$9,038
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$10.80	$0
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY

Total Hours	1,232	
Total Labor		**$49,499**
Total Materials		**$1,752**
Total Subcontracts		**$9,038**
Total Burial		**$0**
Total Cost		**$60,289**
Total Cost minus burial		**$60,289**

All costs are stated in FY01 Dollars

Comments and Assumptions:

1. 5 metal boxes = 1 ROB
2. 50 drums = 1 ROB
3. ROBs used for hauling to SP7
4. Metal boxes recycled
5. Box turner not included in estimate
6. Visual 25 drums or metal boxes per day

Prepared by: Hugh A. Clinger
Date Prepared: 05/22/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR SOIL DISPOSITION

PBS: 11 Duration:
WBS: 1.1.M Fiscal Year:
Control Account: MMMF

Project: Low Level Waste
Campaign: PITW 1002 - Pit Residues

Quantity Basis (containers and volume): approximately 2,248 cu.ft. in 96 containers

Charge Number: MMMF1
CAM: Dave Wood

Containers for Off-site Shipment: 0 1 day = 10 mhrs Make Entries in Yellow Shaded Areas Only
Total Containers minus ROBs: 96

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MILWRT/PPFTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	QA (QACENG) Req'd	QA Mhrs
1. Campaign Planning		11		233	0.02	2	0.02	2	0.02	2	0	0	0	0	0.04	4	0.01	1	0	0	0.05	5
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection		4.2	8	34	0	0	0	0	0	0	0	0	0	0	0	0	0.6	25	0	0	0	0
Assumed Number of Samples/Visuals:	96																					
4. Characterization		15		285	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping				51																		
ROBs	2	0.4	12	41	2	8	2	8	4	16	0	0	0.2	1	1	4	0.6	2	0	0	0	0
Metal Boxes	3	0.1	3	10	2	2	2	2	4	4	0	0	0.2	0	1	1	0.6	1	0	0	0	0
6. Repackaging/Overpacking				198																		
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0.2	0	1	0	0.6	0	0	0	0	0
Boxes	0	0	0	0	2	0	1	0	0.1	0	0	0	0.2	0	1	0	0.6	0	0	0	0	0
Drums	92	3.7	52	198	2	74	1	37	0.1	4	0	0	0.2	7	1	37	0.6	22	0	0	0	0
7. ROB Movements (assumes round trip for ROBs)																						
ROBs	2	0	6	21	1	4	1	4	0.25	1	2	7	0	0	0.4	1	0.6	2	0	0	0	0
8. Container Movements				44																		
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.4	0	0.6	0	0	0	0	0
Metal Boxes	3	0.2	1	5	1	2	0.5	1	0.5	1	0	0	0	0	0.4	1	0.6	1	0	0	0	0
Drums	92	1.2	11	39	1	12	0.5	6	0.5	6	0	0	0	0	0.4	5	0.6	7	0	0	0	0
9. Loading and Shipping				0																		
ISOs	0	0	0	0	5	0	3	0	0.2	0	0	0	0.05	0	1	0	0.6	0	1	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1.2	0	2	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	1	0	1.2	0	2	0	0	0
Total Manhours by Skill						*104*		*60*		*34*		*7*		*8*		*53*		*62*		*0*		*5*

Activity	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal (S&HENG) Req'd	Safety Anal Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERK8) Req'd	Admin. Spt. Mhrs
1. Campaign Planning	0.00	0	0.01	1	0.05	5	0.01	1	0.05	5	1.00	110	0.05	5	0.05	5	0	0	0.75	82	0	0
2. SSR	0	0	0.00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
3. Sampling/Visual Inspection	0	0	0.05	2	0	0	0	0	0	0	0.1	4	0	0	0.05	2	0	0	0	0	0	0
4. Characterization	0	0	0.00	0	0	0	0	0	0	0	1.9	285	0	0	0	0	0	0	0	0	0	0
5. SP7 Dumping																						
ROBs	0	0	0.01	0	0.05	0	0.01	0	0	0	0.1	0	0.2	1	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0.01	0	0.05	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
6. Repackaging/Overpacking																						
ISOs	0	0	0.05	0	0.05	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	0	0	0.05	0	0.05	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.05	2	0.05	2	0.01	0	0	0	0.1	4	0.2	7	0.05	2	0	0	0	0	0	0
7. ROB Movements (assumes round trip for ROBs)																						
ROBs	0	0	0.03	0	0.05	0	0.03	0	0	0	0.1	0	0.2	1	0.05	0	0	0	0	0	0	0
8. Container Movements																						
ISOs	0	0	0.00	0	0.05	0	0.01	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0.00	0	0.05	0	0.01	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.00	0	0.05	1	0.01	0	0	0	0.1	1	0	0	0.05	1	0	0	0	0	0	0
9. Loading and Shipping																						
ISOs	0	0	0.13	0	0.05	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0.13	0	0.05	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0.13	0	0.05	0	0.01	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		*0*		*5*		*8*		*2*		*5*		*405*		*15*		*11*		*0*		*82*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$3,800	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	74	$9.68	$718
Normal Protective Clothing	change	18	$4.03	$73
3 Vehicles-Moves Repack Dump	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
1 Vehicle for ROB Movements	day	0	$55	$0
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	0	$4,600	$0
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	0	$100	$0
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
Box turner	lease	1	$9,038	$9,038
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	0	$10.80	$0
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

* Includes two warehouse attendants in Loading and Shipping

WORKSHEET SUMMARY		
Total Hours	866	
Total Labor		**$38,118**
Total Materials		**$791**
Total Subcontracts		**$9,038**
Total Burial		**$0**
Total Cost		**$47,947**
Total Cost minus burial		**$47,947**

All costs are stated in FY01 Dollars

Comments and Assumptions:
1. 5 metal boxes = 1 ROB
2. 50 drums = 1 ROB
3. ROBs used for hauling to SP7
4. Metal boxes recycled
5. Box turner not included in estimate
6. Visual 25 drums or metal boxes per day

Prepared by: Hugh A. Clinger
Date Prepared: 05/22/2001

Control Team Review: _____

Project Review: _____

SECTION 6

5.0 RISK PLAN

Risk/Opportunity Identification and Analysis Form

Project: Low Level Waste		PBS Number: 11				Total Baseline Dollars (Minimum Case):			$1,101,120	
Evaluator: Den Herder	Date: 03/20/01	WBS Number: 1.1.M.F								
CAM: Buckley	Date:	Control Account Number: MMMF								
Project Task	Risk and/or Opportunity	Potential Impact	Internal Or External Driver	Impact Cost $ (Maximum Case)	Risk Impact Level	Risk Probability %	Risk Probability Level	Probable Cost $ (Likeliest Case)	Risk Critical Value	Risk Handling Strategy
Waste Placement on SP-7	Heavy Equipment down time	Project temporary shut down	Internal	$100,000.00	2	20	2	$20,000.00	2	Accept Risk, Spare parts inventory & lease agreements
Waste Placement on SP-7	Lack of Waste Characterization support	Project field delay two months	Internal	$200,000.00	2	50	3	$100,000.00	2	Accept Risk
Waste Placement on SP-7	Estimate assumptions exceeded for secondary waste	Project field delay and cost growth for waste treatment	Internal	$500,000.00	2	15	2	$75,000.00	2	Accept Risk
			Total:	$800,000.00			Total:	$195,000.00		
Waste Placement on SP-7	Envirocare closure or change to the WAC	Processing, treatment, packaging and shipment to meet the NTS WAC	External	$2,800,000.00	3	10	2	$280,000.00	3	
Waste Placement on SP-7	Catastrophic event	Project shut down six months	External	$600,000.00	2	20	2	$120,000.00	2	
Low Level Waste removal	Waste to WPRAP in containers for bulk processing (shredder)	Schedule acceleration and cost avoidance (50000 cu.ft.)	Internal	($1,200,000.00)	3	30	2	($360,000.00)	3	

WBS DICTIONARY
CONTROL ACCOUNT/CHARGE NUMBER

U.S. DEPARTMENT OF ENERGY
WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION

1. PROJECT TITLE	2. DATE OF CONTRACT	
FEMP (DEFENSE)	12/01/2000	
3. IDENTIFICATION NUMBER		4. INDEX LINE NO.
DE-AC24-01OH20115		85
5. WBS ELEMENT CODE	6. WBS ELEMENT TITLE	
1.1.M.G	LLW THORIUM	
7. APPROVED CP NO.		8. DATE OF CHANGES
ORIGINAL SCOPE PER CP# FY01-0115-0011-00		12/01/2000
9. SYSTEM DESIGN DESCRIPTION	10. BUDGET AND REPORTING NUMBER	
CERCLA/ACA	EW05H3110	

11. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Materials
Subcontracts
ODC's

b. TECHNICAL CONTENT:

This element involves the planning, administration/management, warehousing, surveillance, packaging, preparation, processing, transportation, and disposal of low level and mixed waste thorium. Materials will fall into five primary categories for disposition: Low level waste, trash/debris, wet, mixed waste, and hydrogen generating. These wastes are to be prepared in accordance with applicable off-site location specifications and applicable transportation guidelines. Low level and mixed waste thorium will be managed in a manner that is consistent with the requirements of the FEMP S/RID and DOE Order 435.1. This element includes only low level and mixed waste thorium (40,878 ft3 contained in 4,734 containers) packaged prior to December 1, 2000 or specifically identified within this scoping document.

c. SCOPE OF WORK:

This element is organized into two control accounts, Low Level Waste Thorium and Low Level Waste Thorium Requiring Treatment, with additional supporting structure in the form of subtasks and activities. It provides for the coordination of activities to process thorium waste planned for shipment to NTS, Broad Spectrum Treatment Vendor, and Envirocare. These wastes include containerized thorium bearing wastes and trash/debris that were created during the refining operations at the FEMP and other thorium bearing-waste shipped to the FEMP as the thorium repository for the DOE complex. Materials are located in the former process area of the FEMP in Buildings 60, 64, 65, and Plant 1 Pad and total 40,878 cubic feet.

U.S. DEPARTMENT OF ENERGY
WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION

1. PROJECT TITLE FEMP (DEFENSE)	2. DATE OF CONTRACT 12/01/2000
3. IDENTIFICATION NUMBER DE-AC24-01OH20115	4. INDEX LINE NO. 85
5. WBS ELEMENT CODE 1.1.M.G	6. WBS ELEMENT TITLE LLW THORIUM
7. APPROVED CP NO. ORIGINAL SCOPE PER CP# FY01-0115-0011-00	8. DATE OF CHANGES 12/01/2000
9. SYSTEM DESIGN DESCRIPTION CERCLA/ACA	10. BUDGET AND REPORTING NUMBER EW05H3110

11. ELEMENT TASK DESCRIPTION

Low Level Waste Thorium (MMMG1) provides for the sorting, processing, and disposition of thorium low-level waste thorium residues and thorium-contaminated trash/debris. This waste consists of low-level thorium compounds currently profiled for shipment to NTS and thorium contaminated trash. This scope includes final package preparation and transport of this waste to the Nevada Test Site for burial. This task also provides for the processing of all prohibited items and/or wastes requiring treatment to achieve full disposition of this waste category.

Low Level Waste Thorium Requiring Treatment (MMMG2) provides for the sorting, repackaging, and disposition of low level and mixed thorium waste. This scope includes repackaging, treatment, and transport of the waste to the Nevada Test Site for burial and shipment to and treatment by a Broad Spectrum Contractor with disposal of resulting treated wastes at Envirocare or equivalent disposal facility.

WORK SCOPE DEFINITION
(Control Account)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 1

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.M.G	LLW THORIUM	
5. PERFORMING DIV/DEPARTMENT CODE	**6. ORIGINATOR NAME/PHONE**	**7. WBS ELEMENT MANAGER**
51	LARRY HONIGFORD - EXT. 5724	JIM BUCKLEY - EXT. 3232
8. BUDGET AND REPORTING NUMBER	**9. BUDGET TITLE**	
EW05H3110	WASTE MANAGEMENT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		**11. ESTIMATED START / COMPLETION DATE**
ORIGINAL SCOPE PER CP# FY01-0115-0011-00		12/2000 - 09/2002
12. TASK IDENTIFICATION (CONTROL ACCOUNT)	**13. TASK DESCRIPTION (ONE LINE)**	
MMMG	LOW LEVEL WASTE THORIUM	

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Material
Subcontracts
ODCs

b. TECHNICAL CONTENT:

This control account involves the planning, administration/management, warehousing, surveillance, packaging, preparation, processing, transportation, and disposal of low level and mixed waste thorium. Materials will fall into five primary categories for disposition: Low level waste, trash/debris, wet, mixed waste, and hydrogen generating. These wastes are to be prepared in accordance with applicable off-site location specifications and applicable transportation guidelines. Low level and mixed waste thorium will be managed in a manner that is consistent with the requirements of the FEMP S/RID and DOE Order 435.1. This control account includes only low level and mixed waste thorium (40,878 ft3 contained in 4,734 containers) packaged prior to December 1, 2000 or specifically identified within this scoping document.

c. SCOPE OF WORK:

This control account is organized into two work packages, Low Level Waste Thorium and Low Level Waste Thorium Requiring Treatment, with additional supporting structure in the form of subtasks and activities. It provides for the coordination of activities to process thorium waste planned for shipment to NTS, Broad Spectrum Treatment Vendor, and Envirocare. These wastes include containerized thorium bearing wastes and trash/debris that were created during the refining operations at the FEMP and other thorium bearing-waste shipped to

Project Manager	Control Account Manager	Control Team Manager

WORK SCOPE DEFINITION
(Control Account)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 2

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.M.G	LLW THORIUM

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	LARRY HONIGFORD - EXT. 5724	JIM BUCKLEY - EXT. 3232

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3110	WASTE MANAGEMENT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/2000 - 09/2002

12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ONE LINE)
MMMG	LOW LEVEL WASTE THORIUM

14. ELEMENT TASK DESCRIPTION

the FEMP as the thorium repository for the DOE complex. Materials are located in the former process area of the FEMP in Buildings 60, 64, 65, and Plant 1 Pad and total 40,878 cubic feet.

Low Level Waste Thorium (MMMG1) provides for the sorting, processing, and disposition of thorium low-level waste thorium residues and thorium-contaminated trash/debris. This waste consists of low-level thorium compounds currently profiled for shipment to NTS and thorium contaminated trash. This scope includes final package preparation and transport of this waste to the Nevada Test Site for burial. This task also provides for the processing of all prohibited items and/or wastes requiring treatment to achieve full disposition of this waste category.

Low Level Waste Thorium Requiring Treatment (MMMG2) provides for the sorting, repackaging, and disposition of low level and mixed thorium waste. This scope includes repackaging, treatment, and transport of the waste to the Nevada Test Site for burial and shipment to and treatment by a Broad Spectrum Contractor with disposal of resulting treated wastes at Envirocare or equivalent disposal facility.

d. WORK SPECIFICALLY EXCLUDED:

1) All newly generated thorium waste packaged after December 1, 2000 will be the financial responsibility of the generating activity.
2) Functions provided from central organizations that are not budgeted by this project include; Waste Acceptance Organization (WAO), Waste Characterization, Quality Assurance, and NTS Compliance. Note: Project will budget for sampling activities.

WORK SCOPE DEFINITION
(Control Account)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 1

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.M.G	LLW THORIUM

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	LARRY HONIGFORD - EXT. 5724	JIM BUCKLEY - EXT. 3232

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3110	WASTE MANAGEMENT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/2000 - 09/2002

12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ONE LINE)
MMMG	LOW LEVEL WASTE THORIUM

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Material
Subcontracts
ODCs

b. TECHNICAL CONTENT:

This control account involves the planning, administration/management, warehousing, surveillance, packaging, preparation, processing, transportation, and disposal of low level and mixed waste thorium. Materials will fall into five primary categories for disposition: Low level waste, trash/debris, wet, mixed waste, and hydrogen generating. These wastes are to be prepared in accordance with applicable off-site location specifications and applicable transportation guidelines. Low level and mixed waste thorium will be managed in a manner that is consistent with the requirements of the FEMP S/RID and DOE Order 435.1. This control account includes only low level and mixed waste thorium (40,878 ft3 contained in 4,734 containers) packaged prior to December 1, 2000 or specifically identified within this scoping document.

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Project Manager	Control Account Manager	Control Team Manager

WORK SCOPE DEFINITION
(Control Account)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 2

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.M.G	LLW THORIUM	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	LARRY HONIGFORD - EXT. 5724	JIM BUCKLEY - EXT. 3232
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3110	WASTE MANAGEMENT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00		12/2000 - 09/2002
12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ONE LINE)	
MMMG	LOW LEVEL WASTE THORIUM	

14. ELEMENT TASK DESCRIPTION

the FEMP as the thorium repository for the DOE complex. Materials are located in the former process area of the FEMP in Buildings 60, 64, 65, and Plant 1 Pad and total 40,878 cubic feet.

Low Level Waste Thorium (MMMG1) provides for the sorting, processing, and disposition of thorium low-level waste thorium residues and thorium-contaminated trash/debris. This waste consists of low-level thorium compounds currently profiled for shipment to NTS and thorium contaminated trash. This scope includes final package preparation and transport of this waste to the Nevada Test Site for burial. This task also provides for the processing of all prohibited items and/or wastes requiring treatment to achieve full disposition of this waste category.

Low Level Waste Thorium Requiring Treatment (MMMG2) provides for the sorting, repackaging, and disposition of low level and mixed thorium waste. This scope includes repackaging, treatment, and transport of the waste to the Nevada Test Site for burial and shipment to and treatment by a Broad Spectrum Contractor with disposal of resulting treated wastes at Envirocare or equivalent disposal facility.

d. WORK SPECIFICALLY EXCLUDED:

1) All newly generated thorium waste packaged after December 1, 2000 will be the financial responsibility of the generating activity.
2) Functions provided from central organizations that are not budgeted by this project include; Waste Acceptance Organization (WAO), Waste Characterization, Quality Assurance, and NTS Compliance. Note: Project will budget for sampling activities.

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 1

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.M.G	LLW THORIUM

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	LARRY HONIGFORD - EXT. 5724	JIM BUCKLEY - EXT. 3232

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3110	WASTE MANAGEMENT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/2000 - 09/2001

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
MMMG1	LOW LEVEL WASTE THORIUM

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Material
Subcontracts
ODCs

b. TECHNICAL CONTENT:

This work package provides for the sorting, processing, and disposition of thorium low-level waste thorium residues and thorium-contaminated trash/debris. This waste consists of low-level thorium compounds currently profiled for shipment to NTS and thorium contaminated trash. This scope includes final package preparation and transport of this waste to the Nevada Test Site for burial. This work package also provides for the processing of all prohibited items and/or wastes requiring treatment to achieve full disposition of this waste category.

c. SCOPE OF WORK:

This work package includes residues and trash/debris, which have been profiled for NTS. The residues are comprised of thorium compounds including thoria gel, thorium oxide, and thorium tetrafluoride. This material is contained within drums, cans, and wooden boxes, which are overpacked into metal boxes. Trash may also be packaged into the boxes of thorium residues as a result of previous packaging activities. Trash/debris includes thorium contaminated wastes that are both compactible (PPE, paper, plastic, and light metals) and non-compatible (metal, wood, concrete, and removed pieces of equipment) with the potential for small amounts (estimated at 1% of the waste volume of content) considered prohibited items by the disposal facility. This waste requires sorting to remove

Project Manager	Control Account Manager	Control Team Manager

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 2

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.M.G	LLW THORIUM

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	LARRY HONIGFORD - EXT. 5724	JIM BUCKLEY - EXT. 3232

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3110	WASTE MANAGEMENT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/2000 - 09/2001

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
MMMG1	LOW LEVEL WASTE THORIUM

14. ELEMENT TASK DESCRIPTION

prohibited items and items requiring other processing, repackaging into boxes/drums/ISOs, characterization release, loading into ISOs, and shipment to NTS. Prohibited items (including asbestos materials, lead-acid batteries, aerosol cans, glass, lead-bearing materials, liquids, and solvent-soaked rags) removed during the sorting of this waste will be processed to meet disposal requirements at the NTS or other off-site locations under this work package or may be recycled, when cost effective.

This work package includes the following sub-tasks:
Planning, including plan, procedure, and task order development and maintenance, procurement of supplies and containers, and coordination of secondary waste/prohibited items handling and processing.
Characterization, including providing supporting documentation for managing and dispositioning primary and secondary wastes, providing field support for sorting operations for daily determinations of NTS WAC attainment, providing materials identification and processing requirements. WC is budgeted from a central organization and is not included in this package.
Packaging, including movement of waste to and from packaging area(s), inspecting waste for prohibited items, treatment of secondary wastes/prohibited items, preparing and labeling containers, repackaging wastes, and addition of absorbent to meet disposition requirements for offsite shipment.
Shipping, including shipment of packaged waste to NTS and wastes requiring offsite treatment and/or offsite disposal.

d. WORK SPECIFICALLY EXCLUDED:

1) All newly generated thorium waste packaged after December 1, 2000 will be the financial responsibility of the generating activity.
2) Functions provided from central organizations that are not budgeted by this project include; Waste Acceptance Organization (WAO), Waste Characterization, Quality Assurance, and NTS Compliance. Note: Project will budget for sampling activities.

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 1

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.M.G	LLW THORIUM

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	LARRY HONIGFORD - EXT. 5724	JIM BUCKLEY - EXT. 3232

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3110	WASTE MANAGEMENT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00	12/2000 - 09/2002

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
MMMG2	LOW LEVEL WASTE THORIUM REQUIRING TREATMENT

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Material
Subcontracts
ODCs

b. TECHNICAL CONTENT:

This work package provides for the sorting, repackaging, and disposition of low level and mixed thorium waste. This scope includes repackaging, treatment, and transport of the waste to the Nevada Test Site for burial and shipment to and treatment by a Broad Spectrum Contractor with disposal of resulting treated wastes at Envirocare or equivalent disposal facility.

c. SCOPE OF WORK:

This work package includes waste that requires NTS profile revision or repackaging to support shipment to NTS. This thorium waste includes thorium oxalates, oxides, sump cakes, metals, samples, corrosive liquids, and other miscellaneous thorium residues and liquids. This waste falls into four main categories: Wet, Hydrogen Generating, Mixed, and LLW not profiled or currently unacceptable to NTS in its currently packaged configuration. The waste within this activity includes 125 boxes containing 1,553 inner containers (drums, cans, wooden boxes, and other containers) or 13,625 cubic feet (109 cubic feet per box) of waste.

The Wet Thorium will require processing to remove free liquids and add absorbent materials to meet DOT and NTS WAC requirements. This will be based on a technically based absorbent determination. After processing the waste will

Project Manager	Control Account Manager	Control Team Manager

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 2

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.M.G	LLW THORIUM

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12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
MMMG2	LOW LEVEL WASTE THORIUM REQUIRING TREATMENT

14. ELEMENT TASK DESCRIPTION

undergo final packaging for shipment to NTS. This will require revisions or development of NTS profiles.

The Hydrogen Generating thorium will require processing to place this waste in a stable configuration to support transportation and disposal at NTS. The packaging approach for this waste will require technical evaluation. After processing the waste will undergo final packaging for shipment to NTS. This will require revisions of development of NTS profiles.

Mixed Waste thorium will require segregation for compatibility and management purposes. This waste will be prepared for shipment to an accepted vendor under the DOE Broad Spectrum Contract. The Broad Spectrum Contractor will treat and ship this waste for disposal at Envirocare or equivalent disposal facility. This will require identification and purchase of acceptable containers; development of vendor required profiles, and packaging and shipment for treatment to the identified vendor.

The LLW portion of this scope either requires profiling, or resolution of an issue due to co-packaged waste (Wet, Hydrogen Generating, and/or mixed waste), or identification of a potential non-complying issues as indicated by Waste Characterization review. This will require the implementation of the processing and packaging identified above, and/or revision or development of NTS profiles. After resolution of these issues the waste will undergo final packaging for NTS. Any co-packaged mixed waste will be segregated and managed within the mixed waste category of this activity.

This work package includes the following sub-tasks:
Planning, including plan, procedure, and task order development and maintenance, procurement of supplies and containers, and coordination of secondary waste prohibited items handling and processing.
Characterization, including providing materials identification and processing requirements, supporting documentation for managing and dispositioning primary and secondary wastes, including waste profiling. WC is budgeted from a central organization and is not included in this package.
Packaging, including movement of waste to and from packaging area(s), inspecting waste for prohibited items, treatment of primary and secondary waste/prohibited items, preparing and labeling containers, repackaging of wastes, and addition of

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	12/01/2000	Page 3

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.M.G	LLW THORIUM	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
51	LARRY HONIGFORD - EXT. 5724	JIM BUCKLEY - EXT. 3232
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3110	WASTE MANAGEMENT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
ORIGINAL SCOPE PER CP# FY01-0115-0011-00		12/2000 - 09/2002
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
MMMG2	LOW LEVEL WASTE THORIUM REQUIRING TREATMENT	

14. ELEMENT TASK DESCRIPTION

absorbent to meet disposition requirements for off-site shipment. Shipping, including shipment of packaged waste to NTS and wastes requiring offsite treatment and/or offsite disposal.

d. WORK SPECIFICALLY EXCLUDED:

1) All newly generated thorium waste packaged after December 1, 2000 will be the financial responsibility of the generating activity.
2) Functions provided from central organizations that are not budgeted by this project include; Waste Acceptance Organization (WAO), Waste Characterization, Quality Assurance, and NTS Compliance. Note: Project will budget for sampling activities.

SECTION 7

1.0 NARRATIVE

1. PROJECT TITLE: WASTE MANAGEMENT	2. DATE: 09/10/01	3. PBS#: 11
4. WBS ELEMENT CODE: 1.1.M.G.	5. WBS ELEMENT TITLE: LLW THORIUM	
6. CAM NAME/ PHONE: JIM BUCKLEY/ 3232	7. CAM SIGNATURE:	
8. ORIGINAL/ CHANGE SCOPE/ PER CP#:	9.CONTROL ACCOUNT: MMMG	

SECTION 7: MMMG – LLW THORIUM

1.0 NARRATIVE

1.1 OVERVIEW

This work package involves the planning, administration/management, warehousing, surveillance, packaging, preparation, processing, transportation, and disposal of low level and mixed waste thorium. Materials will fall into five primary categories for disposition: Low level waste, trash/debris, wet, mixed waste, and hydrogen generating. These wastes are to be prepared in accordance with applicable off-site location specifications and applicable transportation guidelines. Low level and mixed waste thorium will be managed in a manner that is consistent with the requirements of the FEMP S/RID and DOE Order 435.1. This work package includes only thorium waste packaged prior to December 1, 2000 or specifically identified within this scoping document. This package includes only low level and mixed waste thorium [40,698 ft^3 contained in 4734 containers (inner included)].

1.2 ASSUMPTIONS/EXCLUSIONS

1.2.1 Assumptions

1.2.1.1 General

- NTS and the treatment vendors remain viable and open for receiving these FEMP waste streams as planned throughout the FEMP closure without change of requirement, and there are no new requirements that would preclude burial or treatment of these wastes. No disposal facility audits are required by the project to support shipments to these facilities.

- Shipments to the NTS, Broad Spectrum contractor, and Envirocare are not impacted by external entities.

- No additions to the prohibited items for NTS.

- Thorium wastes do not require criticality controls.

- Criteria for vacating Building 64/65 does not require equipment removal and no additional decontamination (gross decontamination is performed as a regular course of operations).

- Waste sorting and packaging operations at Building 64/65 are not impacted through June 2003.

- Necessary equipment and carriers are available to support operations.

- Alternate equivalent off-site disposition can be substituted for NTS or Broad Spectrum disposition, based on cost, schedule, and other project specific criteria, if requirements can be met.

- Containers will be procured to Standard Industrial and NTS WAC requirements.

- FEMP maintenance work package will provide budget for replacements and repairs of general use equipment for this work package, such as Building 60, 64, and 65, and various vehicles used in processing of these wastes and containers. HEPA maintenance budget will be provided by the Project.

- Thorium Shipments will be limited to five boxes per load, except for those containing trash only.

1.2.1.2 LLW Thorium (Thoria Gel and Thorium Residues) and Thorium Trash

- No MA or SSR is required for Trash Sorting or Thorium Residue Shipment.

- One each MA and SSR will be performed for processing 51 boxes of Thoria Gel.

- No shipping containers are required to be purchased for Thorium Residues and Thoria Gel.

- No prohibited items will be discovered, because these boxes have been opened during previous processing

- Material shipped to NTS will meet and be certified compliant to the NTS WAC and DOT Shipping requirements.

R1-D-065

- Waste disposal profiles will be reviewed and processed by DOE-NV within 30 days of receipt of the new or revised profile.

- NTS WAC will not change such that material currently profiled for shipment to NTS will become unacceptable.

- No sampling and analysis will be required to complete characterization required to release this material for shipment. Existing process knowledge, analytical data, and visual inspections will fulfill the need for characterization information. Trash sorting process will be performed to provide adequate characterization.

- Prohibited articles and wastes that require treatment prior to disposition included in the work package can be effectively dispositioned through other processes included in the closure baseline, such as by utilizing existing planned RCRA treatment contracts.

- All sorted Thorium Trash will be shipped to NTS.

- Final preparation of Thorium Residues requires no packaging activities.

- Final preparation of Thoria Gel consists of inspection for prohibited items, addition of 200 pounds of lime absorbent, drilling holes in the box runners, final closure of the box, and weighing. Placement of trash in void spaces as available to support minimization of void space and dunnage for container stabilization.

1.2.1.3 Thorium Requiring Treatment

- Mixed Waste designated for subcontractor treatment will be sent to a vendor under the Broad Spectrum Treatment Contract established for the DOE complex. This contract will remain available for the treatment of this waste.

- Waste shipped to the Broad Spectrum Treatment Contractor will meet and be certified compliant to WAC and DOT shipping requirements.

- No waste shipped to the Broad Spectrum Treatment Contractor will fail treatment and be returned to the FEMP.

- Broad Spectrum Treatment Contractor will ship treated waste to Envirocare or equivalent for disposal.

- Broad Spectrum Treatment Contractor will cover cost for transportation to and from and treatment at their facility and these cost will not change for the thorium waste.

- Receipt of analytical is received in a timely manner (~30 days).

- Initiation of this activity will require one SSR and Management Assessment.

1.2.2 Exclusions

1.2.2.1 General

Disposal costs at NTS are covered in separate burial charges paid by a DOE transfer of funds, based on annual waste forecast from the Project.

- All newly generated thorium waste packaged after December 1, 2000 will be the financial responsibility of the generating activity.

- Functions provided from central organizations that are not budgeted by this project include; Waste Acceptance Organization (WAO), Waste Characterization, Quality Assurance, and NTS Compliance. Note: Project will budget for sampling activities.

1.2.3 Government-Furnished Equipment/Services

- Nevada Test Site (NTS) Disposal Facility will be available to the FEMP and support the scheduled activities.

- Government furnished equipment will be provided as needed to support the project operations.

- The Broad Spectrum contract as administered by the Department of Energy Oak Ridge Operations Office (DOE-ORO) will remain in effect to support the scheduled activities, and will be fully available for the waste types and schedules identified in this Control Account.

- The DOE disposal contract with Envirocare of Utah will remain in place to support the scheduled activities and will be fully available for the waste types and schedules identified in this Control Account.

1.3 DRIVERS

Drivers include either events (or activities) that must occur as predecessor or contemporary to the project, as well as significant requirements that must be met in the execution of the project.

1.3.1 Events

- NTS continues to operate in a manner consistent with present methods and schedules.

1.3.2 Requirements

In addition to applicable elements from the closure SRID, the following additional requirements significantly affect the project.

- Operable Unit 3 requirements (decision and implementing documents)
- DOE/NV-325-Rev. 3, Nevada Test Site Waste Acceptance Criteria, dated December 1, 2000.
- Broad Spectrum Treatment Vendor contract specific waste acceptance criteria.
- Envirocare Waste Acceptance Criteria

1.4 PROJECT PHYSICAL DESCRIPTION

This work package in organized in two tasks (charge numbers MMMG1 and MMMG2) with additional supporting structure in the form of subtasks and activities. It provides for the coordination of activities to process thorium waste planned for shipment to NTS, Broad Spectrum Treatment Vendor, and Envirocare. These wastes include containerized thorium bearing wastes and trash/debris that were created during the refining operations at the FEMP and other thorium bearing-waste shipped to the FEMP as the thorium repository for the DOE complex. Materials are located in the former process area of the FEMP in Buildings 60, 64, 65, and Plant 1 Pad and total 40,698 cubic feet.

1.4.1 Task #1 - MMMG1 – LLW Thorium

MMMG1 provides for the sorting, processing, and disposition of thorium low-level waste thorium residues and thorium contaminated trash/debris. This waste consists of low-level thorium compounds currently profiled for shipment to NTS and thorium contaminated trash. This scope includes final package preparation and transport of this waste to the Nevada Test Site for burial. This task also provides for the processing of all prohibited items and/or wastes requiring treatment to achieve full disposition of this waste category.

1) Planning

Planning, including plan, procedure, and task order development and maintenance, procurement of supplies and containers, and coordination of secondary waste/prohibited items handling and processing.

2) Characterization

Characterization, including providing supporting documentation for managing and dispositioning primary and secondary wastes, providing field support for sorting operations for daily determinations of NTS WAC attainment, providing materials identification and

processing requirements. WC is budgeted from a central organization and is not included in this package.

3) Packaging

Packaging including movement of waste to and from packaging area(s), inspecting waste for prohibited items, treatment of secondary wastes/prohibited items, preparing and labeling containers, repackaging wastes, and addition of absorbent to meet disposition requirements for offsite shipment.

4) Shipping

Shipping, including shipment of packaged waste to NTS and wastes requiring offsite treatment and/or offsite disposal.

1.4.2 Task #2 - MMMG2 – LLW Thorium Requiring Treatment

MMMG2 provides for the sorting, repackaging, and disposition of low level and mixed thorium waste. This scope includes repackaging, treatment, and transport of the waste to the Nevada Test Site for burial and shipment to and treatment by a Broad Spectrum Contractor with disposal of resulting treated wastes at Envirocare or equivalent disposal facility.

1) Planning

Planning, including plan, procedure, and task order development and maintenance, procurement of supplies and containers, and coordination of secondary waste prohibited items handling and processing.

2) Characterization

Characterization, including providing materials identification and processing requirements, supporting documentation for managing and dispositioning primary and secondary wastes, including waste profiling. WC is budgeted from a central organization and is not included in this package.

3) Packaging

Packaging, including movement of waste to and from packaging area(s), inspecting waste for prohibited items, treatment of primary and secondary waste/prohibited items, preparing and labeling containers, repackaging of wastes, and addition of absorbent to meet disposition requirements for off-site shipment.

4) Shipping

Shipping, including shipment of packaged waste to NTS and wastes requiring offsite treatment and/or offsite disposal.

1.5 PROJECT PLAN/TECHNICAL SCOPE AND QUANTIFICATION

1.5.1 MMMG1 - LLW Thorium

LLW thorium includes residues and trash/debris, which have been profiled for NTS. The residues are comprised of thorium compounds including thoria gel, thorium oxide, and thorium tetrafluoride. This material is contained within drums, cans, and wooden boxes, which are overpacked into metal boxes. Trash may also be packaged into the boxes of thorium residues as a result of previous packaging activities. Trash/debris includes thorium contaminated wastes that are both compactable (PPE, paper, plastic, and light metals) and non-compatible (metal, wood, concrete, and removed pieces of equipment) with the potential for small amounts (estimated at 1% of the waste volume of content) considered prohibited items by the disposal facility. This waste requires sorting to remove prohibited items and items requiring other processing, repackaging into boxes/drums/ISOs, characterization release, loading into ISOs, and shipment to NTS. Prohibited items (including asbestos materials, lead-acid batteries, aerosol cans, glass, lead-bearing materials, liquids, and solvent-soaked rags) removed during the sorting of this waste will be processed to meet disposal requirements at the NTS or other off-site locations under this work package or may be recycled, when cost effective to avoid disposal.

Estimated LLW Thorium Waste Volumes

Waste	Containers	Inner Containers	Cubic Feet	Disposal Site
Thoria Gel	51	332	5559	NTS
Thorium Residues	83	2401	9047	NTS
Thorium Trash	448	NA	12,467*	NTS
Total	582	2733	27,073	

*Includes 1000 cubic feet of trash which will be generated by the project.

Based on prior experience, the prohibited items/non-conforming wastes fraction from Trash sorting is estimated at 30% site recycling programs (lead-acid batteries, tires) and 70% aerosol cans (to be punctured, liquids processed/treated, and cans crushed for disposal). Many of these prohibited wastes require additional treatment or processing prior to disposal to achieve disposal acceptance criteria and/or regulatory compliance. The table summarizes the planned management approach for each of the anticipated prohibited wastes.

Management Approach for Prohibited Items

Waste Type	Anticipated Volume (ft^3)	Management Approach	Disposal
Aerosol Cans	85.5	Collect in 13 drums, puncture and crush cans (~21 ft^3) Collect liquids (~116 gallons in 3 drums and transfer to bulking to incinerate offsite (subcontract)	Transfer to OSDF or to NTS Ash to NTS
Lead Acid Batteries and Tires to be Recycled	36.5	Collect on 3 pallets and decontaminate	Release to recycler
Total	122		

Management and disposition of the LLW Thorium is accomplished within the standardized project sub-task framework established for all PBS-11 project activities comprised of subtask and the associated specific activities follows:

1) Subtask #1 - Planning

1.1) Plan/Scope - Planning

- Identify primary disposition paths for the wastes, develop secondary waste and prohibited items, and identify disposition paths for secondary wastes and prohibited items.

- Develop/maintain procedures and task orders to guide work activities, and incorporate requirements and safety goals.

- Perform project planning support activities including work force task training, safety analyses, technical review board, DOT determinations, ISRC reviews, and readiness activities.

- Maintain performance/status tracking tools for the project activity and perform project oversight.

- Coordinate interface with other site projects to obtain treatment capabilities and existing disposition support for resulting prohibited wastes requiring treatment or additional processing.

- Approval of container requirements by Shipping and Packaging Services and Technical Review Board

- Review and Approval of work permit documents by Health and Safety

1.2) Quantification - Planning

In addition to the quantitative information provided above, the planning activities for the disposition of the thorium residues and trash are based on providing continuing operations support and troubleshooting interface for this operation.

2) Subtask #2 - Characterization

2.1) Plan/Scope - Characterization

- Identify absorbent and waste compatibility requirements for off-site shipments.
- Develop defensible waste characterization package utilizing existing process knowledge, analytical data, visual inspection, and non-intrusive inspection techniques, e.g., Real Time Radioscopy (RTR) to release boxes for shipment to NTS.
- Perform characterization of primary and secondary wastes (prohibited items/requiring processing) and verify they meet intended off-site disposal facility (WAC)
- Review of RTR Tapes by technical support personnel to assure content of containers is as expected.

2.2) Quantification - Characterization

These activities are budgeted by Waste Characterization and NTS compliance. The subtasks are described here to account for activity duration/schedules.

3) Subtask #3 - Packaging

3.1) Plan/Scope - Packaging

- Sort Trash to remove prohibited items (estimated 1% of the trash waste) from the primary waste stream and identify wet trash (estimated 5% of waste) for dewatering.
- Place accepted trash in original containers for transfer to woodpile and placement into sealands for shipment. (Sorted trash will be copackaged with other waste streams as needed to support overall NTS shipping program.)
- Containerize prohibited items (per table) and/or items requiring other processing, amending with specified absorbent materials.
- Verify the primary wastes meet the NTS WAC.

- Perform treatment in support disposition of prohibited items and items requiring other processing, (includes decanting free liquids and processing for disposal, puncturing ~ 85.5 ft^3 of aerosol cans and dispositioning ~116 gallons of collected liquids and ~21 ft^3 crushed empty cans, and specific chemical treatments as required).

- Package project related trash inside of Building 64/65 into boxes. A total of approximately 8 boxes of trash will be generated. Empty boxes from the NPDS and/or other repackaging activity will be used. Resulting in no additional cost for containers.

- Move and handle containers of LLW thorium for final disposition at NTS. This includes movement of interfering boxes not part of the inventory to be shipped.

- Purchase supplies such as bolts, nuts, compression washers, gaskets,, tools, absorbents, bags, tape, containers (11 ISOs) and other equipment

- Inspect, add absorbent, and close metal boxes consistent with NTS WAC and Task Orders for all LLW thorium profiled for final disposition.

- Inspect, add absorbent, and close of boxes, drums and ISOs consistent with NTS WAC and Task Orders for all LLW thorium for final disposition.

3.2 Quantification - Packaging

In addition to quantitative information provided above, the processing activities of the disposition of contaminated trash are based on the assumption that sorting operations in Building 64/65 can be performed at a rate of 0.5 ISOs, 3.25 boxes, or 18.6 drums per day utilizing standard crew (see attached estimate). Thoria Gel processing can be performed at a rate of 5 boxes/day. Packaging of prohibited items is managed under programmatic efforts.

4) Subtask #4 - Shipping

4.1) Plan/Scope - Shipping

- Perform RTR on each box of Thorium Residues and Thoria Gel prior to loading and shipment to NTS.

- Develop and approve NTS, DOE, and DOT paperwork preparation to support the transportation to and disposal of LLW thorium at NTS by shipping and Packaging Services and NTS Compliance/QA

- Move, load, and transport LLW thorium from the FEMP to NTS by an approved route.

4.2) Quantification - Shipping

In addition to the quantitative information above, the shipping activities for the disposition of thorium residues and thoria gel are based on a throughput rate of 10 boxes loaded per day, and five boxes per shipment. Trash shipments are based on a total estimated volume for shipment of 11 sealands.

1.5.2 MMMG2 - Thorium Requiring Treatment

Thorium Requiring Treatment includes waste which requires NTS profile revision or repackaging to support shipment to NTS. This thorium waste includes thorium oxalates, oxides, sump cakes, metals, samples, corrosive liquids, and other miscellaneous thorium residues and liquids. This waste falls into four main categories: Wet, Hydrogen Generating, Mixed, and LLW not profiled or currently unacceptable to NTS in its currently packaged configuration. The waste within this activity includes 125 boxes containing 1,553 inner containers (drums, cans, wooden boxes, and other containers) or 13,625 cubic feet (109 cubic feet per box) of waste.

Estimated Thorium Requiring Treatment Waste Volumes

Waste	Boxes	Inner Containers	Cubic Feet	Disposal Site
Wet Thorium	30*	281	3270*	NTS
Hydrogen Generating	20*	185	2180*	NTS
Mixed	20*	189	2180*	Treatment Vendor
LLW	55*	898	5995*	NTS
Total	125	1553	13,625	

*These are estimates. Actual counts are not possible due to the copackaged nature of the Thorium Requiring Treatment inventories.

The Wet Thorium will require processing to remove free liquids and add absorbent materials to meet DOT and NTS WAC requirements. This will be based on a technically based absorbent determination. After processing the waste will undergo final packaging for shipment to NTS. This will require revisions or development of NTS profiles.

The Hydrogen Generating thorium will require processing to place this waste in a stable configuration to support transportation and disposal at NTS. The packaging approach for this waste will require technical evaluation. After processing the waste will undergo final packaging for shipment to NTS. This will require revisions of development of NTS profiles.

Mixed Waste thorium will require segregation for compatibility and management purposes. This waste will be prepared for shipment to an accepted vendor under the DOE Broad Spectrum Contract. The Broad Spectrum Contractor will treat and ship this waste for disposal at Envirocare or equivalent disposal facility. This will require identification and purchase of acceptable containers; development of vendor required profiles, and packaging and shipment for treatment to the identified vendor.

The LLW portion of this scope either requires profiling, or resolution of an issue due to copackaged waste (Wet, Hydrogen Generating, and/or mixed waste), or identification of a potential non-complying issues as indicated by Waste Characterization review. This will require the implementation of the processing and packaging identified above, and/or revision or development of NTS profiles. After resolution of these issues the waste will undergo final packaging for NTS. Any copackaged mixed waste will be segregated and managed within the mixed waste category of this activity.

Management and disposition of the Thorium Requiring Treatment is accomplished within the standardized project sub-task framework established for all PBS-11 project activities comprised of subtask and the associated specific activities follows:

1) Subtask #1 - Planning

1.1) Plan/Scope - Planning

- Identify primary disposition paths for the wastes, develop secondary waste and prohibited items, and identify disposition paths for secondary wastes and prohibited items.
- Develop/maintain procedures and task orders to guide work activities, and incorporate requirements and safety goals.
- Perform project planning support activities including work force task training, safety analyses, technical review board, DOT determinations, ISRC reviews, and readiness activities.
- Maintain performance/status tracking tools for the project activity and perform project oversight.
- Coordinate interface with other site projects to obtain treatment capabilities and existing disposition support for resulting prohibited wastes requiring treatment or additional processing.
- Develop technical support basis for packaging and processing activities to be implemented.
- Approve work documents and permits by Health and Safety
- Approve container and packaging requirements by Shipping and Packaging Services and TRB.

1.2) Quantification - Planning

In addition to the quantitative information provided above, the planning activities for the disposition of the Thorium Requiring Treatment are based on providing a continuing operations support and troubleshooting interface for this operation.

2) Subtask #2 - Characterization

2.1) Plan/Scope - Characterization

- Identify absorbent and waste compatibility requirements for off-site shipments.
- Develop defensible waste characterization package utilizing existing process knowledge, analytical data, visual inspection, and non-intrusive inspection techniques, e.g., Real Time Radioscopy (RTR) to release boxes for shipment to NTS.
- Perform characterization of primary and secondary wastes (prohibited items/requiring processing) and verify they meet intended off-site disposal facility (WAC) and identify any actions required to make the waste compliant.
- Determine acceptability of liquid waste for disposal through AWWT. Determine sampling requirements for wastes based on characterization and disposal facility needs.
- Obtain analysis of Mixed Waste and LLW to support characterization and disposal at the NTS or Broad Spectrum facility at on-site and off-site laboratories. This would include 67 samples for 25 MEFs with analytical results received in 30 days.
- Prepare, submit and resolve comments on NTS profiles (two required) and Broad Spectrum Treatment Vendor profile (one required).

2.2) Quantification - Characterization

Except for the sampling and analysis activities, all other characterization activities are budgeted by Waste Characterization, NTS compliance, and/or WAO. The subtasks are described here to account for the activity duration/schedule.

3) Subtask #3 - Packaging

3.1) Plan/Scope - Packaging

- Verify the primary wastes meet the NTS WAC after repackaging.

- Move and handle containers of Thorium Requiring Treatment for final disposition at NTS. This includes movement of interfering boxes not part of the inventory to be shipped.

- Purchase supplies such as bolts, nuts, compression washers, gaskets, tools, absorbents, bags, tape, containers (75 boxes) and other equipment (e.g., venting device). Seventy-four boxes within the inventory are currently acceptable for shipment.

- Inspection, absorbent addition, and closure of metal boxes consistent with NTS WAC and Task Orders for all LLW thorium profiled for final disposition.

- Inspect, add absorbent, and close boxes, drums and ISOs consistent with NTS WAC and Task Orders for all LLW thorium for final disposition.

- Decant free liquid and add absorbent to of wet thorium LLW to meet DOT requirements and NTS WAC. As supported by the absorbent determination. Approximately one 50-pound bag of lime will be added to each container (drum and cans).

- Disposition decanted free liquids (300 gallons) to AWWT.

- Vent containers with Hydrogen Generating materials using modified drum venting unit.

- Repackage hydrogen generating material into new containers surrounded with inert material. Inert material will be applied at the approximate rate of one pound of sand per one pound hydrogen generating material. Material can be repackaged into 320 x 5-gallon containers.

- Sample and analyze approximately 143 containers (drums and cans) or mixed and LLW to support recharacterization and disposal at the NTS of Broad Spectrum Contractor facility or Envirocare. This would include 67 samples for 25 MEFs. Remove shield blocks (100) in and around Building 64 to Plant 1 pad or other location for future use.

3.2) Quantification - Packaging

In addition to quantitative information provided above, the processing activities are estimated to be performed at a rate of two boxes repackaged per day with standard crew.

4) Subtask #4 - Shipping

4.1) Plan/Scope - Shipping

- Perform RTR on each box of Thorium Requiring Treatment prior to loading and shipment to NTS and as need for Mixed Waste.

- Develop and approve NTS, Broad Spectrum Contractor, Envirocare, DOE, and/or DOT paperwork preparation to support the transportation to and disposal of Thorium Requiring Treatment by Shipping and Packaging Services.

- Move, load, and transport Thorium Requiring Treatment from the FEMP to NTS, Broad Spectrum Contractor Facility, or Envirocare by an approved route.

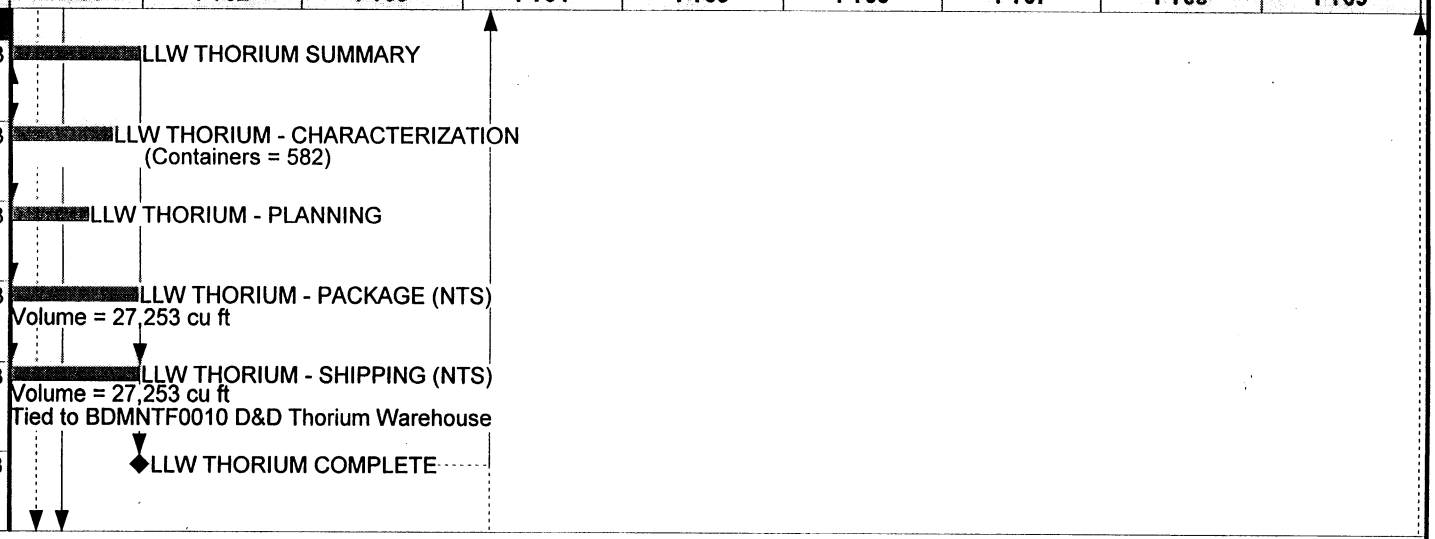
4.2) Quantification - Shipping

In addition to the quantitative information above, the shipping activities for the disposition of Thorium Requiring Treatment are based on a throughput rate of 10 boxes loaded per day, and five boxes per shipment.

SECTION 7

2.0 SCHEDULE

Activity ID	Orig Dur	Baseline Early start	Baseline Early finish	Total Float	
THORIUM					
MMMG1H000	166*	04DEC00	27SEP01	733	LLW THORIUM SUMMARY
MMMG16820	128	04DEC00	23JUL01	733	LLW THORIUM - CHARACTERIZATION (Containers = 582)
MMMG16810	98	04DEC00	29MAY01	733	LLW THORIUM - PLANNING
MMMG16840	162	04DEC00	20SEP01	733	LLW THORIUM - PACKAGE (NTS) Volume = 27,253 cu ft
MMMG16850	166	04DEC00	27SEP01	733	LLW THORIUM - SHIPPING (NTS) Volume = 27,253 cu ft Tied to BDMNTF0010 D&D Thorium Warehouse
MMPBS11010	0		27SEP01	1,608	LLW THORIUM COMPLETE



Start Date	01DEC00	BLCF - MM01	Sheet 12 of 13
Finish Date	30SEP09		
Data Date	01DEC00		
Run Date	12SEP01 10:13		

FLUOR FERNALD, INC

Waste Management Baseline Schedule #2

Early Bar
Progress Bar
Critical Activity

Comment Ref: R1-D-559

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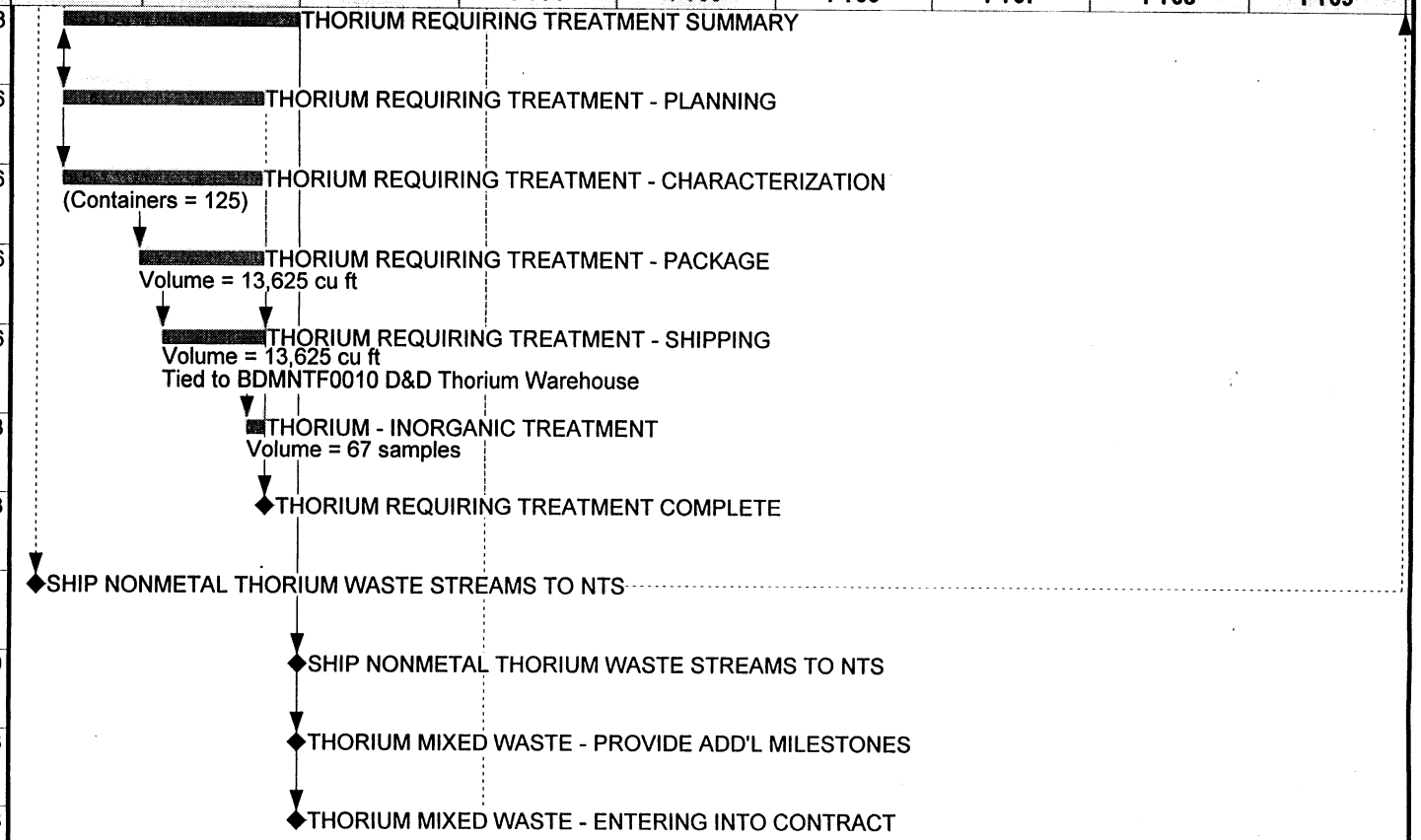
Activity ID	Orig Dur	Baseline Early start	Baseline Early finish	Total Float
MMMG2H000	301*	02APR01	30SEP02	1,408
MMMG26910	254	02APR01	08JUL02	576
MMMG26920	253	02APR01	03JUL02	576
MMMG26940	155	26SEP01	08JUL02	576
MMMG26950	129	20NOV01	15JUL02	576
MMMG26960	24	03JUN02	15JUL02	1,408
MMPBS11011	0		15JUL02	1,408
MMEMILEEPA	0	01FEB01*		1,741
MMEPAMILE2	0	30SEP02		1,409
MMEPAMILE3	0		30SEP02	1,408
MMEPAMILE4	0		30SEP02	1,408



Start Date	01DEC00
Finish Date	30SEP09
Data Date	01DEC00
Run Date	12SEP01 10:13

BLCF - MM01 Sheet 13 of 13

FLUOR FERNALD, INC

Waste Management Baseline Schedule #2

Early Bar
Progress Bar
Critical Activity

Comment Ref: R1-D-559

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SECTION 7

3.0 MANPOWER PLANS

Manpower Planning Sheet (CR2)

MPS # 1MG01 LLW THORIUM

	DRIVERS	START DATE	END DATE	TOT	FY 2001 Q1	FY 2001 Q2	FY 2001 Q3	FY 2001 Q4	FY 2002 Q1	FY 2002 Q2	FY 2002 Q3	FY 2002 Q4	FY 2003 Q1	FY 2003 Q2	FY 2003 Q3	FY 2003 Q4	FY 2004 Q1	FY 2004 Q2	FY 2004 Q3	FY 2004 Q4	FY 2005 Q1	FY 2005 Q2	FY 2005 Q3	FY 2005 Q4	FY 2006 Q1	FY 2006 Q2	FY 2006 Q3	FY 2006 Q4
206	ADMIN COMPLEX D&D	10/01/2004	07/03/2006																		xxx	xxx	xxx	xxx	xxx	xxx	xxx	x
207	EAST WAREHOUSE D&D	10/04/2004	12/14/2004																		xxx							
208	ELECTRICAL STATION D&D	01/03/2005	12/29/2005																			xxx	xxx	xxx	xxx			
209	PLANT 1 PHASE II D&D	10/04/2004	10/12/2005																		xxx	xxx	xxx	xxx	x			
216	Electrical Station (Garage/Heavy Equip. Bldg.)	01/10/2005	03/28/2005																			xxx						
217	Electrical Station (Main Electrical/Substations)	07/10/2006	09/28/2006																									xxx
218	General Sump Complex D&D	10/01/2001	01/07/2003						xxx	xxx	xxx	xxx	xxx	x														
219	General Sump (Elec. Power Center Bldg.)	04/01/2004	07/19/2004																xxx	x								
220	Plant 2 Complex D&D	10/01/2001	04/01/2004						xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	x									
221	Plant 3 Complex D&D	10/01/2001	12/10/2002						xxx	xxx	xxx	xxx	xxx															
222	Plant 8 Complex D&D	10/01/2001	06/26/2003						xxx	xxx	xxx	xxx	xxx	xxx	xxx													
223	Liquid Storage D&D	10/01/2002	03/31/2005										xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx						
224	Lab Complex D&D	10/01/2004	10/31/2005																		xxx	xxx	xxx	xxx	x			
225	Pilot Plant Complex D&D	10/01/2003	09/27/2005														xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx				
301	OSDF Summary Schedule	04/01/2004	12/23/2009																xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
411	AWWT Operations	10/02/2000	12/31/2009		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
502	WASTE PIT SHIP/DISPOSAL OPERATIONS	10/02/2000	08/01/2005		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xx				
601	Soils Excavation Project Summary	10/01/2003	12/31/2009														xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
705	SILOS 1, 2, & 3 CONSTRUCTION & CAT	04/01/2003	04/01/2005												xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	x					
707	SILOS 1, 2, & 3 OPERATIONS	10/03/2005	03/30/2007																						xxx	xxx	xxx	xxx
709	SILOS 1, 2, & 3 SAFE SHUTDOWN and D&D	04/02/2007	03/31/2008																									
801	Nuclear Materials Summary	10/02/2000	05/20/2002		xxx	xxx	xxx	xxx	xxx	xxx	xx																	
1001	Mixed Waste Summary	10/02/2000	09/30/2003		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx												
1101	Low Level Waste Summary	10/02/2000	09/30/2005		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx				

				TOT	FY 2001 Q1	FY 2001 Q2	FY 2001 Q3	FY 2001 Q4	FY 2002 Q1	FY 2002 Q2	FY 2002 Q3	FY 2002 Q4	FY 2003 Q1	FY 2003 Q2	FY 2003 Q3	FY 2003 Q4	FY 2004 Q1	FY 2004 Q2	FY 2004 Q3	FY 2004 Q4	FY 2005 Q1	FY 2005 Q2	FY 2005 Q3	FY 2005 Q4	FY 2006 Q1	FY 2006 Q2	FY 2006 Q3	FY 2006 Q4
	Craft Labor	Carpenter		0.30	0.1	0.1	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Environmental Safety & H	Rad Tech		5.40	1.4	1.4	1.4	1.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Environmental Safety & H	Safety Engineer		0.90	0.3	0.3	0.2	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Environmental Safety & H	Safety Tech.		0.10	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	General Labor	Hazwat		22.40	5.8	5.7	5.7	5.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Procurement	Material Property Control Rep.		1.10	0.3	0.3	0.3	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Project Management	Project Mgr.		1.40	0.5	0.5	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Project Management	Tech/Program Support Rep.		0.60	0.2	0.2	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Maintenance	Project Support Manager		3.80	1	1	1	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RTR	QA/QC	QA Engineer		0.30	0.1	0	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Transportation Labor	Heavy Equipment Operator		0.10	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Manpower Planning Sheet (CR2)

MPS # 1MG01 LLW THORIUM

DRIVERS	START DATE	END DATE	FY 2007 Q1	FY 2007 Q2	FY 2007 Q3	FY 2007 Q4	FY 2008 Q1	FY 2008 Q2	FY 2008 Q3	FY 2008 Q4	FY 2009 Q1	FY 2009 Q2	FY 2009 Q3	FY 2009 Q4	FY 2010 Q1	FY 2010 Q2	FY 2010 Q3	FY 2010 Q4	FY 2011 Q1	FY 2011 Q2	FY 2011 Q3	FY 2011 Q4
206 ADMIN COMPLEX D&D	10/01/2004	07/03/2006																				
207 EAST WAREHOUSE D&D	10/04/2004	12/14/2004																				
208 ELECTRICAL STATION D&D	01/03/2005	12/29/2005																				
209 PLANT 1 PHASE II D&D	10/04/2004	10/12/2005																				
216 Electrical Station (Garage/Heavy Equip. Bld	01/10/2005	03/28/2005																				
217 Electrical Station (Main Electrical/Substation	07/10/2006	09/28/2006																				
218 General Sump Complex D&D	10/01/2001	01/07/2003																				
219 General Sump (Elec. Power Center Bldg.)	04/01/2004	07/19/2004																				
220 Plant 2 Complex D&D	10/01/2001	04/01/2004																				
221 Plant 3 Complex D&D	10/01/2001	12/10/2002																				
222 Plant 8 Complex D&D	10/01/2001	06/26/2003																				
223 Liquid Storage D&D	10/01/2002	03/31/2005																				
224 Lab Complex D&D	10/01/2004	10/31/2005																				
225 Pilot Plant Complex D&D	10/01/2003	09/27/2005																				
301 OSDF Summary Schedule	04/01/2004	12/23/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx							
411 AWWT Operations	10/02/2000	12/31/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx							
502 WASTE PIT SHIP/DISPOSAL OPERATION	10/02/2000	08/01/2005																				
601 Soils Excavation Project Summary	10/01/2003	12/31/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx							
705 SILOS 1, 2, & 3 CONSTRUCTION & CAT	04/01/2003	04/01/2005																				
707 SILOS 1, 2, & 3 OPERATIONS	10/03/2005	03/30/2007	xxx	xxx																		
709 SILOS 1, 2, & 3 SAFE SHUTDOWN and D	04/02/2007	03/31/2008			xxx	xxx	xxx	xxx														
801 Nuclear Materials Summary	10/02/2000	05/20/2002																				
1001 Mixed Waste Summary	10/02/2000	09/30/2003																				
1101 Low Level Waste Summary	10/02/2000	09/30/2005																				

		FY 2007 Q1	FY 2007 Q2	FY 2007 Q3	FY 2007 Q4	FY 2008 Q1	FY 2008 Q2	FY 2008 Q3	FY 2008 Q4	FY 2009 Q1	FY 2009 Q2	FY 2009 Q3	FY 2009 Q4	FY 2010 Q1	FY 2010 Q2	FY 2010 Q3	FY 2010 Q4	FY 2011 Q1	FY 2011 Q2	FY 2011 Q3	FY 2011 Q4
Craft Labor	Carpenter	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Rad Tech	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Safety Engineer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Safety Tech.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
General Labor	Hazwat	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Procurement	Material Property Control Rep.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Management	Project Mgr.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Management	Tech/Program Support Rep.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance	Project Support Manager	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QA/QC	QA Engineer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transportation Labor	Heavy Equipment Operator	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Manpower Planning Sheet (CR2)

MPS # 1MG01 LLW THORIUM

DRIVERS		START DATE	END DATE	TOT	FY 2001 Q1	FY 2001 Q2	FY 2001 Q3	FY 2001 Q4	FY 2002 Q1	FY 2002 Q2	FY 2002 Q3	FY 2002 Q4	FY 2003 Q1	FY 2003 Q2	FY 2003 Q3	FY 2003 Q4	FY 2004 Q1	FY 2004 Q2	FY 2004 Q3	FY 2004 Q4	FY 2005 Q1	FY 2005 Q2	FY 2005 Q3	FY 2005 Q4	FY 2006 Q1	FY 2006 Q2	FY 2006 Q3	FY 2006 Q4
Transportation Labor		Motor Vehicle Operator		7.60	1.9	2	2	1.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transportation Labor		Transportation Laborer		0.80	0.2	0.2	0.2	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Waste Management		Waste Engineer		5.40	1.6	1.6	1.6	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & H		Rad Engineer		0.70	0.2	0.2	0.2	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			Sheet Totals:	50.90	13.60	13.50	13.50	10.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Manpower Planning Sheet (CR2)

MPS # 1MG01 LLW THORIUM

DRIVERS	START DATE	END DATE	FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Transportation Labor	Motor Vehicle Operator		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transportation Labor	Transportation Laborer		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Waste Management	Waste Engineer		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Rad Engineer		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Sheet Totals:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Manpower Planning Sheet (CR2)

MPS # 1MG02 THORIUM REQUIRING TREATMENT

	DRIVERS	START DATE	END DATE	TOT	FY 2001 Q1	Q2	Q3	Q4	FY 2002 Q1	Q2	Q3	Q4	FY 2003 Q1	Q2	Q3	Q4	FY 2004 Q1	Q2	Q3	Q4	FY 2005 Q1	Q2	Q3	Q4	FY 2006 Q1	Q2	Q3	Q4
206	ADMIN COMPLEX D&D	10/01/2004	07/03/2006																		xxx	xxx	xxx	xxx	xxx	xxx	xxx	x
207	EAST WAREHOUSE D&D	10/04/2004	12/14/2004																		xxx							
208	ELECTRICAL STATION D&D	01/03/2005	12/29/2005																			xxx	xxx	xxx	xxx			
209	PLANT 1 PHASE II D&D	10/04/2004	10/12/2005																		xxx	xxx	xxx	xxx	x			
216	Electrical Station (Garage/Heavy Equip. Bldg.)	01/10/2005	03/28/2005																			xxx						
217	Electrical Station (Main Electrical/Substations)	07/10/2006	09/28/2006																									xxx
218	General Sump Complex D&D	10/01/2001	01/07/2003						xxx	xxx	xxx	xxx	xxx	x														
219	General Sump (Elec. Power Center Bldg.)	04/01/2004	07/19/2004																xxx	x								
220	Plant 2 Complex D&D	10/01/2001	04/01/2004						xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	x									
221	Plant 3 Complex D&D	10/01/2001	12/10/2002						xxx	xxx	xxx	xxx	xxx															
222	Plant 8 Complex D&D	10/01/2001	06/26/2003						xxx	xxx	xxx	xxx	xxx	xxx	xxx													
223	Liquid Storage D&D	10/01/2002	03/31/2005										xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx						
224	Lab Complex D&D	10/01/2004	10/31/2005																		xxx	xxx	xxx	xxx	x			
225	Pilot Plant Complex D&D	10/01/2003	09/27/2005														xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx				
301	OSDF Summary Schedule	04/01/2004	12/23/2009																xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
411	AWWT Operations	10/02/2000	12/31/2009		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
502	WASTE PIT SHIP/DISPOSAL OPERATIONS	10/02/2000	08/01/2005		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xx				
601	Soils Excavation Project Summary	10/01/2003	12/31/2009														xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
705	SILOS 1, 2, & 3 CONSTRUCTION & CAT	04/01/2003	04/01/2005												xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	x					
707	SILOS 1, 2, & 3 OPERATIONS	10/03/2005	03/30/2007																						xxx	xxx	xxx	xxx
709	SILOS 1, 2, & 3 SAFE SHUTDOWN and D&D	04/02/2007	03/31/2008																									
801	Nuclear Materials Summary	10/02/2000	05/20/2002		xxx	xxx	xxx	xxx	xxx	xxx	xx																	
1001	Mixed Waste Summary	10/02/2000	09/30/2003		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx												
1101	Low Level Waste Summary	10/02/2000	09/30/2005		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx				
	Craft Labor	Carpenter		0.20	0	0	0	0	0.1	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Environmental Safety & H	Rad Engineer		1.40	0	0	0.2	0.3	0.3	0.3	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Environmental Safety & H	Rad Tech		5.20	0	0	0.2	0.3	1.4	1.6	1.5	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Environmental Safety & H	Safety Engineer		1.10	0	0	0.2	0.2	0.2	0.3	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Environmental Safety & H	Safety Tech.		0.40	0	0	0	0	0.2	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	General Labor	Hazwat		15.00	0	0	0.4	0.5	4.4	4.7	4.6	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Procurement	Material Property Control Rep.		0.80	0	0	0.1	0.1	0.2	0.2	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Project Management	Project Mgr.		5.30	0	0	1.1	1	1.1	1	1	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Project Management	Tech/Program Support Rep.		0.60	0	0	0.1	0.1	0.1	0.1	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Maintenance	Project Support Manager		2.40	0	0	0.1	0.2	0.6	0.7	0.7	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RTR	QA/QC	QA Engineer		0.20	0	0	0	0	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Manpower Planning Sheet (CR2)

MPS # 1MG02 THORIUM REQUIRING TREATMENT

DRIVERS	START DATE	END DATE	FY 2007 Q1	FY 2007 Q2	FY 2007 Q3	FY 2007 Q4	FY 2008 Q1	FY 2008 Q2	FY 2008 Q3	FY 2008 Q4	FY 2009 Q1	FY 2009 Q2	FY 2009 Q3	FY 2009 Q4	FY 2010 Q1	FY 2010 Q2	FY 2010 Q3	FY 2010 Q4	FY 2011 Q1	FY 2011 Q2	FY 2011 Q3	FY 2011 Q4
206 ADMIN COMPLEX D&D	10/01/2004	07/03/2006																				
207 EAST WAREHOUSE D&D	10/04/2004	12/14/2004																				
208 ELECTRICAL STATION D&D	01/03/2005	12/29/2005																				
209 PLANT 1 PHASE II D&D	10/04/2004	10/12/2005																				
216 Electrical Station (Garage/Heavy Equip. Bld	01/10/2005	03/28/2005																				
217 Electrical Station (Main Electrical/Substation	07/10/2006	09/28/2006																				
218 General Sump Complex D&D	10/01/2001	01/07/2003																				
219 General Sump (Elec. Power Center Bldg.)	04/01/2004	07/19/2004																				
220 Plant 2 Complex D&D	10/01/2001	04/01/2004																				
221 Plant 3 Complex D&D	10/01/2001	12/10/2002																				
222 Plant 8 Complex D&D	10/01/2001	06/26/2003																				
223 Liquid Storage D&D	10/01/2002	03/31/2005																				
224 Lab Complex D&D	10/01/2004	10/31/2005																				
225 Pilot Plant Complex D&D	10/01/2003	09/27/2005																				
301 OSDF Summary Schedule	04/01/2004	12/23/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx							
411 AWWT Operations	10/02/2000	12/31/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx							
502 WASTE PIT SHIP/DISPOSAL OPERATION	10/02/2000	08/01/2005																				
601 Soils Excavation Project Summary	10/01/2003	12/31/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx							
705 SILOS 1, 2, & 3 CONSTRUCTION & CAT	04/01/2003	04/01/2005																				
707 SILOS 1, 2, & 3 OPERATIONS	10/03/2005	03/30/2007	xxx	xxx																		
709 SILOS 1, 2, & 3 SAFE SHUTDOWN and D	04/02/2007	03/31/2008			xxx	xxx	xxx	xxx														
801 Nuclear Materials Summary	10/02/2000	05/20/2002																				
1001 Mixed Waste Summary	10/02/2000	09/30/2003																				
1101 Low Level Waste Summary	10/02/2000	09/30/2005																				

		FY 2007 Q1	FY 2007 Q2	FY 2007 Q3	FY 2007 Q4	FY 2008 Q1	FY 2008 Q2	FY 2008 Q3	FY 2008 Q4	FY 2009 Q1	FY 2009 Q2	FY 2009 Q3	FY 2009 Q4	FY 2010 Q1	FY 2010 Q2	FY 2010 Q3	FY 2010 Q4	FY 2011 Q1	FY 2011 Q2	FY 2011 Q3	FY 2011 Q4
Craft Labor	Carpenter	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Rad Engineer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Rad Tech	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Safety Engineer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Safety Tech.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
General Labor	Hazwat	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Procurement	Material Property Control Rep.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Management	Project Mgr.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Management	Tech/Program Support Rep.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance	Project Support Manager	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QA/QC	QA Engineer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Manpower Planning Sheet (CR2)

MPS # 1MG02 THORIUM REQUIRING TREATMENT

DRIVERS		START DATE	END DATE	TOT	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				FY 2006			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	Transportation Labor	Heavy Equipment Operator		0.30	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Transportation Labor	Motor Vehicle Operator		4.70	0	0	0.2	0.2	1.3	1.4	1.4	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Transportation Labor	Transportation Laborer		0.70	0	0	0	0	0.1	0.3	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Waste Management	Waste Engineer		9.80	0	0	1.8	1.8	1.9	2	2	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			Sheet Totals:	46.10	0.00	0.00	4.40	4.70	12.10	12.90	12.70	1.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Manpower Planning Sheet (CR2)

MPS # 1MG02 THORIUM REQUIRING TREATMENT

DRIVERS	START DATE	END DATE	FY 2007 Q1	FY 2007 Q2	FY 2007 Q3	FY 2007 Q4	FY 2008 Q1	FY 2008 Q2	FY 2008 Q3	FY 2008 Q4	FY 2009 Q1	FY 2009 Q2	FY 2009 Q3	FY 2009 Q4	FY 2010 Q1	FY 2010 Q2	FY 2010 Q3	FY 2010 Q4	FY 2011 Q1	FY 2011 Q2	FY 2011 Q3	FY 2011 Q4
Transportation Labor	Heavy Equipment Operator		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transportation Labor	Motor Vehicle Operator		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transportation Labor	Transportation Laborer		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Waste Management	Waste Engineer		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Sheet Totals:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

SECTION 7

4.0 ESTIMATE

4.0 ESTIMATE

Elements of Cost: Labor, Materials, Subcontracts, ODCs.

Estimating Assumptions:

Labor

- Planning and characterization work 8 hours days, while packaging and shipping work 10-hour days.
- Activity duration for planning is based upon document review necessary to begin project and continuous review of inventory, task orders as needed and revisions of work plans.
- Sorting and packaging durations based on the rates per day of material processed as demonstrated in the field and on Manpower spreadsheets supplied to estimating.
- Crew size and skill mix established with input from Operations and the Project Engineer.
- Shipping crew established by Operations.

Quantities

- Task 1 based on existing containerized inventory as of December 1, 2000 or specifically identified within this scope (i.e., 1000 cubic feet of project generated trash.
- Task 2 based on existing containerized inventory as of December 1, 2000.

PPE:

- Anti-Cs at two changes per day for direct labor for sorting and packaging field operations and regular clothing at four changes per day for direct labor for shipping.
- Double anti-Cs are required for packaging activities inside Building 65.

MMMG1

LLW THORIUM

09/07/2001
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Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

PBS: OHFN11
WBS: 1.1.M.G
CTRL ACCT: MMMG
CHARGE NO: MMMG1
COMMENT NO: R1-F11-006, R1-F11-008

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: CRPNTR **CARPENTER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	76.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0
Yr Total Cost:	2,354	0	0	0	0	0	0	0	0	0
Cum Total Cost:	2,354	2,354	2,354	2,354	2,354	2,354	2,354	2,354	2,354	2,354

Resource: HAZWAT **HAZWAT** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	8,097.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	8,097.0	8,097.0	8,097.0	8,097.0	8,097.0	8,097.0	8,097.0	8,097.0	8,097.0	8,097.0
Yr Total Cost:	233,113	0	0	0	0	0	0	0	0	0
Cum Total Cost:	233,113	233,113	233,113	233,113	233,113	233,113	233,113	233,113	233,113	233,113

Resource: HEOOPR **HEAVY EQUIP OPERATOR** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	63.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0
Yr Total Cost:	1,982	0	0	0	0	0	0	0	0	0
Cum Total Cost:	1,982	1,982	1,982	1,982	1,982	1,982	1,982	1,982	1,982	1,982

Resource: INHTEC **INDUST HYGIENIST TEC** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	51.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0
Yr Total Cost:	1,922	0	0	0	0	0	0	0	0	0
Cum Total Cost:	1,922	1,922	1,922	1,922	1,922	1,922	1,922	1,922	1,922	1,922

INCLUDES ESCALATION COSTS

09/07/2001
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PBS: OHFN11
WBS: 1.1.M.G
CTRL ACCT: MMMG
CHARGE NO: MMMG1
COMMENT NO: R1-F11-006, R1-F11-008

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

RESOURCE TOTALS FOR: MAT300

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Units:	240,883.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Units:	240,883.0	240,883.0	240,883.0	240,883.0	240,883.0	240,883.0	240,883.0	240,883.0	240,883.0	240,883.0
Yr Total Cost:	240,883	0	0	0	0	0	0	0	0	0
Cum Total Cost:	240,883	240,883	240,883	240,883	240,883	240,883	240,883	240,883	240,883	240,883

Resource: MPCREP **MATL PROP CTRL REP** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	356.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	356.0	356.0	356.0	356.0	356.0	356.0	356.0	356.0	356.0	356.0
Yr Total Cost:	11,506	0	0	0	0	0	0	0	0	0
Cum Total Cost:	11,506	11,506	11,506	11,506	11,506	11,506	11,506	11,506	11,506	11,506

Resource: MVOOPR **MOTOR VEHICLE OPER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	2,718.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	2,718.0	2,718.0	2,718.0	2,718.0	2,718.0	2,718.0	2,718.0	2,718.0	2,718.0	2,718.0
Yr Total Cost:	78,441	0	0	0	0	0	0	0	0	0
Cum Total Cost:	78,441	78,441	78,441	78,441	78,441	78,441	78,441	78,441	78,441	78,441

Resource: PJSMGR **PROJECT SUPPORT MGR** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,372.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,372.0	1,372.0	1,372.0	1,372.0	1,372.0	1,372.0	1,372.0	1,372.0	1,372.0	1,372.0
Yr Total Cost:	62,728	0	0	0	0	0	0	0	0	0
Cum Total Cost:	62,728	62,728	62,728	62,728	62,728	62,728	62,728	62,728	62,728	62,728

INCLUDES ESCALATION COSTS

09/07/2001
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PBS: OHFN11
WBS: 1.1.M.G
CTRL ACCT: MMMG
CHARGE NO: MMMG1
COMMENT NO: R1-F11-006, R1-F11-008

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: PRJMGR **PROJECT MANAGER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	440.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	440.0	440.0	440.0	440.0	440.0	440.0	440.0	440.0	440.0	440.0
Yr Total Cost:	39,230	0	0	0	0	0	0	0	0	0
Cum Total Cost:	39,230	39,230	39,230	39,230	39,230	39,230	39,230	39,230	39,230	39,230

Resource: QACENG **QA ENGINEER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	88.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0
Yr Total Cost:	4,044	0	0	0	0	0	0	0	0	0
Cum Total Cost:	4,044	4,044	4,044	4,044	4,044	4,044	4,044	4,044	4,044	4,044

Resource: RADENG **RAD ENGINEER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	188.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	188.0	188.0	188.0	188.0	188.0	188.0	188.0	188.0	188.0	188.0
Yr Total Cost:	8,874	0	0	0	0	0	0	0	0	0
Cum Total Cost:	8,874	8,874	8,874	8,874	8,874	8,874	8,874	8,874	8,874	8,874

Resource: RADTEC **RAD TECH** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,980.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,980.0	1,980.0	1,980.0	1,980.0	1,980.0	1,980.0	1,980.0	1,980.0	1,980.0	1,980.0
Yr Total Cost:	67,478	0	0	0	0	0	0	0	0	0
Cum Total Cost:	67,478	67,478	67,478	67,478	67,478	67,478	67,478	67,478	67,478	67,478

INCLUDES ESCALATION COSTS

09/07/2001
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PBS: OHFN11
WBS: 1.1.M.G
CTRL ACCT: MMMG
CHARGE NO: MMMG1
COMMENT NO: R1-F11-006, R1-F11-008

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: S&HENG **SAFETY ENGINEER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	308.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	308.0	308.0	308.0	308.0	308.0	308.0	308.0	308.0	308.0	308.0
Yr Total Cost:	15,311	0	0	0	0	0	0	0	0	0
Cum Total Cost:	15,311	15,311	15,311	15,311	15,311	15,311	15,311	15,311	15,311	15,311

Resource: TPSREP **TECH/PROG SUPT REP** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	188.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	188.0	188.0	188.0	188.0	188.0	188.0	188.0	188.0	188.0	188.0
Yr Total Cost:	9,768	0	0	0	0	0	0	0	0	0
Cum Total Cost:	9,768	9,768	9,768	9,768	9,768	9,768	9,768	9,768	9,768	9,768

Resource: TRNLAB **TRANSPORT LABORER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	266.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	266.0	266.0	266.0	266.0	266.0	266.0	266.0	266.0	266.0	266.0
Yr Total Cost:	6,565	0	0	0	0	0	0	0	0	0
Cum Total Cost:	6,565	6,565	6,565	6,565	6,565	6,565	6,565	6,565	6,565	6,565

INCLUDES ESCALATION COSTS

09/07/2001
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Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

PBS: OHFN11
WBS: 1.1.M.G
CTRL ACCT: MMMG
CHARGE NO: MMMG1
COMMENT NO: R1-F11-006, R1-F11-008

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: WSTENG **WASTE ENGINEER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,866.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,866.0	1,866.0	1,866.0	1,866.0	1,866.0	1,866.0	1,866.0	1,866.0	1,866.0	1,866.0
Yr Total Cost:	95,222	0	0	0	0	0	0	0	0	0
Cum Total Cost:	95,222	95,222	95,222	95,222	95,222	95,222	95,222	95,222	95,222	95,222

GRAND TOTALS:

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	18,057.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	18,057.0	18,057.0	18,057.0	18,057.0	18,057.0	18,057.0	18,057.0	18,057.0	18,057.0	18,057.0
Yr Total Cost:	879,422	0	0	0	0	0	0	0	0	0
Cum Total Cost:	879,422	879,422	879,422	879,422	879,422	879,422	879,422	879,422	879,422	879,422

CAM_____ CONTROL TEAM_____

INCLUDES ESCALATION COSTS

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW THORIUM

PBS: 11
WBS: 1.1.M
Control Account: MMMG

Duration:
Fiscal Year:

Project: Low Level Waste Thorium-MMMG1

Campaign: Thoria Gel

Quantity Basis (containers and volume): Approximately 5,559 external cubic feet in 51 metal boxes

Charge Number: MMMG1
CAM: Larry Honigford

Containers for Off-site Shipment: 51
Total Containers minus ROBs: 51

1 day = 10 mhrs

Make Entries In Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MLWRT/PIPFTR) Req'd	Maintenance (MLWRT/PIPFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	QA (QACENG) Req'd	QA (QACENG) Mhrs	WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal. (S&HENG) Req'd	Safety Anal. (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning		40		1320	0.05	20	0.05	20	0	0	0	0	0	0	0.1	40	0.1	40	0	0	0	0	0	0	0	0	0.1	40	0.1	40	0.1	40	2	800	0.1	40	0.1	40	0	0	0.5	200	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
3. Sampling/Visual Inspection		0	0	0	3	0	1	0	0	0	0	0	0	0	0.5	0	1	0	0	0	0	0	0	0	0.2	0	0	0	0	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Assumed Number of Samples/Visuals:	0																																											
4. Characterization		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. RTR				175																																								
Metal Boxes	51	4	36	175	1	44	0.5	22	0	0	0	0	0	0	0.5	0	1	44	0	0	1	44	0	0	0	0	0.05	2	0.05	2	0	0	0.1	4	0	0	0.05	2	0	0	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0	0	0	0	0	0	0.5	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
6. Repackaging/Overpacking				3,480																																								
ISOs	0	0	0	0	6	0	2	0	0	0	0	0	0.1	0	1	0	2	0	0	0	0	0	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	51	30	990	3480	7	2100	2	600	0	0	0	0	0.1	30	1	300	1	300	0	0	0	0	0	0	0.05	15	0.05	15	0.05	15	0	0	0.1	30	0.2	60	0.05	15	0	0	0	0	0	0
Drums	0	0	0	0	6	0	2	0	0	0	0	0	0.1	0	1	0	2	0	0	0	0	0	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
7. Container Movements				0																																								
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
8. Loading and Shipping				558																																								
ISOs	0	0	0	3	5	0	3	0	0.2	0	0	0	0.05	0	0.5	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	51	5	143	555	3	150	2	100	0	0	2	100	0.05	3	0.5	25	2	100	0	0	0	0	0	0	0	0	0.05	3	0.05	3	0	0	1.2	60	0.2	10	0.05	3	0	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						*2,314*		*742*		*0*		*100*		*33*		*374*		*484*		*0*		*44*		*0*		*15*		*60*		*60*		*40*		*684*		*110*		*60*		*0*		*200*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$3,800	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	352	$9.68	$3,407
Normal Protective Clothing	change	143	$4.03	$574
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	51	$10	$510
Other Materials	each	51	$100	$5,100
NTS Truck Freight	shipment	10	$4,600	$46,000
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	10	$100	$1,000
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
WPRAP Processing (residues)	ton	0	$372	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	5,600	$6.57	$36,792
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY		
Total Manhours	5,530	
Total Labor		**$197,742**
Total Materials		**$56,592**
Total Subcontracts		**$0**
Total Burial		**$36,792**
Total Cost		**$291,126**
Total Cost minus burial		**$254,334**

All Costs are stated in FY01 Dollars

Comments and Assumptions:

1. Purchase of shipping containers not required
2. 5 boxes per shipment
3. 1 box will be shipped with Thorium Residues. Cost for transportation and burial will be calculated with that campaign.
4. Assumes the only remaining activities are loading and shipping
5. All boxes will be RTR'd
6. Anti-Cs @ 32 changes per day

Revised by: Larry Honigford
Date Revised: 08/10/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW THORIUM

PBS: 11 | Duration:
WBS: 1.1.M | Fiscal Year
Control Account: MMMG

Project: Low Level Waste Thorium-MMMG1
Campaign: Thorium Residues

Quantity Basis (containers and volume): Approximately 9,047 external cubic feet in 83 boxes

Charge Number: MMMG1
CAM: Larry Honigford

Containers for Off-site Shipment: 83
Total Containers minus RORs: 83

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (M&LWRT&PPTR) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	QA (QACENG) Req'd	QA Mhrs
1. Campaign Planning		40		1000	0.1	40	0.1	40	0	0	0	0	0	0	0.2	80	0.1	40	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection		0	0	0	3	0	1	0	0	0	0	0	0	0	0.5	0	1	0	0	0	0	0
Assumed Number of Samples/Visuals:	0																					
4. Characterization		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. RTR				171																		
Metal Boxes	50	4	35	171	1	43	0.5	22	0	0	0	0	0	0	0.2	9	1	43	0	0	1	43
Drums	0	0	0	0	1	0	0.5	0	0	0	0	0	0	0	0.2	0	1	0	0	0	0	0
6. Repackaging/Overpacking				3,910																		
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0
Boxes	83	34	0	3910	7	2380	2	680	0	0	0	0	0	0	1	340	1	340	0	0	0	0
Drums	0	0	0	0	2	0	1	0	0.1	0	0	0	0	0	0.5	0	1	0	0	0	0	0
7. Container Movements				0																		
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
8. Loading and Shipping				1,177																		
ISOs	0	0	0	4	5	0	3	0	0.2	0	0	0	0.05	0	0.5	0	1	0	0	0	0	0
Metal Boxes	83	8	311	1173	6	498	2	166	0	0	2	166	0.05	4	0.5	42	2	166	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0
Total Manhours by Skill						*2,961*		*908*		*0*		*166*		*4*		*470*		*589*		*0*		*43*

Activity	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal. (S&HENG) Req'd	Safety Anal. Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning	0	0	0	0	0.1	40	0.1	40	0.1	40	1	400	0.1	40	0.1	40	0	0	0.5	200	0	0
2. SSR	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
3. Sampling/Visual Inspection	0	0	0.2	0	0	0	0	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Assumed Number of Samples/Visuals:																						
4. Characterization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. RTR																						
Metal Boxes	0	0	0	0	0.05	2	0.05	2	0	0	0.1	4	0	0	0.05	2	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
6. Repackaging/Overpacking																						
ISOs	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	0	0	0.05	17	0.05	17	0.05	17	0	0	0.1	34	0.2	68	0.05	17	0	0	0	0	0	0
Drums	0	0	0.05	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
7. Container Movements																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
8. Loading and Shipping																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	4	0.05	4	0	0	1.23	102	0.2	17	0.05	4	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		*0*		*17*		*63*		*63*		*40*		*540*		*125*		*63*		*0*		*200*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	35	$9.68	$340
Normal Protective Clothing	change	311	$4.03	$1,254
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	0	$120	$0
Other Materials	each	0	$240	$0
NTS Truck Freight	shipment	17	$4,600	$78,200
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	17	$100	$1,700
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
WPRAP Processing (residues)	ton	0	$372	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	9,296	$6.57	$61,075
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY		
Total Manhours	6,254	
Total Labor		$214,037
Total Materials		$81,494
Total Subcontracts		$0
Total Burial		$61,075
Total Cost		$356,605
Total Cost minus burial		$295,531

All Costs are stated in FY01 Dollars

Comments and Assumptions:

1. Purchase of shipping containers not required.
2. 5 boxes per shipment
3. 1 box of Thoria gel included in transportation and burial costs
4. Assumes the only remaining activities are loading and shipping
5. 33 boxes were RTRed prior to Dec. 2000, therefore only 50 boxes are RTRed here

Revised by: Larry Honigford
Date Revised: 08/10/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR LLW NON-COMPACTABLE TRASH DISPOSITION

PBS: 11 | Duration
WBS: 1.1.M | Fiscal Year
Control Account: MMMG

Project: Low Level Waste Thorium-MMMG1

Campaign: Thorium Trash

Quantity Basis (containers and volume): Approximately 12,647 external cubic feet in 418 drums, 26 metal boxes and 4 ISOs

Charge Number: MMMG1
CAM: Larry Honigford

Containers for Off-site Shipment: 11
Total Containers minus ROBs: 460

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) eq'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) eq'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) eq'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) eq'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MLWRT/RPFTR) eq'd	Maintenance (MLWRT/RPFTR) Mhrs	Supervisor (OPRMGR) eq'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) eq'd	NTS Comp. (QACENG) Mhrs	QA (QACENG) eq'd	QA (QACENG) Mhrs	WAO (WSTENG) eq'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) eq'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) eq'd	Safety Eng. (S&HENG) Mhrs	Safety Anal. (S&HENG) eq'd	Safety Anal. (S&HENG) Mhrs	Waste Eng. (WSTENG) eq'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) eq'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) eq'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) eq'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) eq'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) eq'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning		40		560	0.05	20	0.05	20	0	0	0	0	0	0	0.1	40	0.1	40	0	0	0	0	0	0	0	0	0.1	40	0.1	40	0.10	40	0.5	200	0.1	40	0.1	40	0.00	0	0.1	40	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
3. Trash Sorting				4,451																																								
ISOs	4	6	198	720	6	360	2	120	0	0	0	0	0.1	6	1	60	2	120	0	0	0	0	0	0	0.05	3	0.05	3	0.05	3	0	0	0.5	30	0.2	12	0.05	3	0	0	0	0	0	0
Metal Boxes	26	8	279	1014	6	507	2	169	0	0	0	0	0.1	8	1	85	2	169	0	0	0	0	0	0	0.05	4	0.05	4	0.05	4	0	0	0.5	42	0.2	17	0.05	4	0	0	0	0	0	0
Drums	418	23	747	2717	6	1359	2	453	0	0	0	0	0.1	23	1	226	2	453	0	0	0	0	0	0	0.05	11	0.05	11	0.05	11	0	0	0.5	113	0.2	45	0.05	11	0	0	0	0	0	0
4. ROB Movements																																												
Tanks	0	0	0	0	2	0	0	0	2	0	2	0	0.05	0	0.5	0	1	0	0	0	0	0	0	0	0	0	0	0	0.05	0	0	0	0.1	0	0.05	0	0.05	0	0	0	0	0	0	0
5. Container Movements				869																																								
ISOs	4	2	44	152	4	69	2	35	0.5	9	0	0	0	0	1	17	1	17	0	0	0	0	0	0	0	0	0.05	1	0.05	1	0	0	0.1	2	0	0	0.05	1	0	0	0	0	0	0
Metal Boxes	26	1	36	123	4	56	2	28	0.5	7	0	0	0	0	1	14	1	14	0	0	0	0	0	0	0	0	0.05	1	0.05	1	0	0	0.1	1	0	0	0.05	1	0	0	0	0	0	0
Drums	418	7	173	594	4	272	2	136	0.5	34	0	0	0	0	1	68	1	68	0	0	0	0	0	0	0	0	0.05	3	0.05	3	0	0	0.1	7	0	0	0.05	3	0	0	0	0	0	0
6. Loading and Shipping				397																																								
ISOs	11	4	104	397	5	179	3	107	0.2	7	0	0	0.05	2	0.5	18	1	36	0	0	0.00	0	0	0	0	0	0.05	2	0.05	2	0	0	1	36	0.2	7	0.05	2	0	0	0	0	0	0
Metal Boxes	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						*2,822*		*1,068*		*57*		*0*		*39*		*528*		*917*		*0*		*0*		*0*		*19*		*65*		*65*		*40*		*431*		*121*		*65*		*0*		*40*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	11	$2,000	$22,000
Metal Boxes	each	0	$1,200	$0
Drums	each	0	$40	$0
Full Anti-Cs	change	1224	$9.68	$23,697
Normal Protective Clothing	change	357	$4.03	$1,440
3 Vehicles for Moves	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
1 Vehicle for ROB Moves	day	0	$55	$0
Absorbent	each	11	$120	$1,320
Other Materials	each	11	$240	$2,640
NTS Truck Freight	shipment	11	$4,600	$50,600
Shoring	shipment	11	$100	$1,100
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	14,850	$10.80	$160,380

* Includes two warehouse attendants in Loading and Shipping

WORKSHEET SUMMARY		
Total Manhours	6,277	
Total Labor		**$206,721**
Total Materials		**$102,797**
Total Burial		**$160,380**
Total Cost		**$469,898**
Total Cost minus burial		**$309,518**

All costs are stated in FY01 Dollars

Comments and Assumptions

1. Assumes all thorium trash will be sent to NTS
2. Double anit-c's required for thorium
3. Assumes 1,000 cubic feet of trash generated during disposal operations

Revised by: Larry Honigford
Date Revised: ########

Control Team Review: _____

Project Review: _____

MMMG2

THORIUM REQUIRING TREATMENT

09/07/2001
2:09 PM

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

PBS: OHFN11
WBS: 1.1.M.G
CTRL ACCT: MMMG
CHARGE NO: MMMG2
COMMENT NO: R1-F11-006, R1-F11-008

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: CRPNTR **CARPENTER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	0.0	70.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	0.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
Yr Total Cost:	0	2,282	0	0	0	0	0	0	0	0
Cum Total Cost:	0	2,282	2,282	2,282	2,282	2,282	2,282	2,282	2,282	2,282

Resource: HAZWAT **HAZWAT** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	410.0	6,149.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	410.0	6,559.0	6,559.0	6,559.0	6,559.0	6,559.0	6,559.0	6,559.0	6,559.0	6,559.0
Yr Total Cost:	11,804	186,338	0	0	0	0	0	0	0	0
Cum Total Cost:	11,804	198,142	198,142	198,142	198,142	198,142	198,142	198,142	198,142	198,142

Resource: HEOOPR **HEAVY EQUIP OPERATOR** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	2.1	134.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	2.1	137.0	137.0	137.0	137.0	137.0	137.0	137.0	137.0	137.0
Yr Total Cost:	67	4,466	0	0	0	0	0	0	0	0
Cum Total Cost:	67	4,533	4,533	4,533	4,533	4,533	4,533	4,533	4,533	4,533

Resource: INHTEC **INDUST HYGIENIST TEC** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	19.9	155.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	19.9	175.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0
Yr Total Cost:	752	6,151	0	0	0	0	0	0	0	0
Cum Total Cost:	752	6,903	6,903	6,903	6,903	6,903	6,903	6,903	6,903	6,903

INCLUDES ESCALATION COSTS

09/07/2001
2:09 PM

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

PBS: OHFN11
WBS: 1.1.M.G
CTRL ACCT: MMMG
CHARGE NO: MMMG2
COMMENT NO: R1-F11-006, R1-F11-008

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

RESOURCE TOTALS FOR: MAT300

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Units:	1,711.1	316,440.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Units:	1,711.1	318,152.0	318,152.0	318,152.0	318,152.0	318,152.0	318,152.0	318,152.0	318,152.0	318,152.0
Yr Total Cost:	1,711	324,985	0	0	0	0	0	0	0	0
Cum Total Cost:	1,711	326,696	326,696	326,696	326,696	326,696	326,696	326,696	326,696	326,696

Resource: MPCREP **MATL PROP CTRL REP** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	80.0	277.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	80.0	357.0	357.0	357.0	357.0	357.0	357.0	357.0	357.0	357.0
Yr Total Cost:	2,584	9,425	0	0	0	0	0	0	0	0
Cum Total Cost:	2,584	12,009	12,009	12,009	12,009	12,009	12,009	12,009	12,009	12,009

Resource: MVOOPR **MOTOR VEHICLE OPER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	160.0	1,846.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	160.0	2,006.0	2,006.0	2,006.0	2,006.0	2,006.0	2,006.0	2,006.0	2,006.0	2,006.0
Yr Total Cost:	4,618	56,077	0	0	0	0	0	0	0	0
Cum Total Cost:	4,618	60,694	60,694	60,694	60,694	60,694	60,694	60,694	60,694	60,694

Resource: PJSMGR **PROJECT SUPPORT MGR** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	125.0	899.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	125.0	1,024.0	1,024.0	1,024.0	1,024.0	1,024.0	1,024.0	1,024.0	1,024.0	1,024.0
Yr Total Cost:	5,715	43,263	0	0	0	0	0	0	0	0
Cum Total Cost:	5,715	48,978	48,978	48,978	48,978	48,978	48,978	48,978	48,978	48,978

INCLUDES ESCALATION COSTS

09/07/2001
2:09 PM

PBS: OHFN11
WBS: 1.1.M.G
CTRL ACCT: MMMG
CHARGE NO: MMMG2
COMMENT NO: R1-F11-006, R1-F11-008

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: PRJMGR **PROJECT MANAGER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	930.0	1,410.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	930.0	2,340.0	2,340.0	2,340.0	2,340.0	2,340.0	2,340.0	2,340.0	2,340.0	2,340.0
Yr Total Cost:	82,919	132,326	0	0	0	0	0	0	0	0
Cum Total Cost:	82,919	215,245	215,245	215,245	215,245	215,245	215,245	215,245	215,245	215,245

Resource: QACENG **QA ENGINEER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	7.4	101.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	7.4	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0
Yr Total Cost:	341	4,914	0	0	0	0	0	0	0	0
Cum Total Cost:	341	5,255	5,255	5,255	5,255	5,255	5,255	5,255	5,255	5,255

Resource: RADENG **RAD ENGINEER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	210.7	371.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	210.7	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
Yr Total Cost:	9,945	18,447	0	0	0	0	0	0	0	0
Cum Total Cost:	9,945	28,392	28,392	28,392	28,392	28,392	28,392	28,392	28,392	28,392

Resource: RADTEC **RAD TECH** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	203.0	2,027.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	203.0	2,230.0	2,230.0	2,230.0	2,230.0	2,230.0	2,230.0	2,230.0	2,230.0	2,230.0
Yr Total Cost:	6,918	72,712	0	0	0	0	0	0	0	0
Cum Total Cost:	6,918	79,631	79,631	79,631	79,631	79,631	79,631	79,631	79,631	79,631

INCLUDES ESCALATION COSTS

09/07/2001
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PBS: OHFN11
WBS: 1.1.M.G
CTRL ACCT: MMMG
CHARGE NO: MMMG2
COMMENT NO: R1-F11-006, R1-F11-008

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: S&HENG **SAFETY ENGINEER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	171.7	292.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	171.7	464.0	464.0	464.0	464.0	464.0	464.0	464.0	464.0	464.0
Yr Total Cost:	8,535	15,294	0	0	0	0	0	0	0	0
Cum Total Cost:	8,535	23,829	23,829	23,829	23,829	23,829	23,829	23,829	23,829	23,829

RESOURCE TOTALS FOR: SERVSUB

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Units:	10,000.0	326,825.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Units:	10,000.0	336,825.0	336,825.0	336,825.0	336,825.0	336,825.0	336,825.0	336,825.0	336,825.0	336,825.0
Yr Total Cost:	10,000	335,649	0	0	0	0	0	0	0	0
Cum Total Cost:	10,000	345,649	345,649	345,649	345,649	345,649	345,649	345,649	345,649	345,649

Resource: TPSREP **TECH/PROG SUPT REP** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	81.7	182.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	81.7	264.0	264.0	264.0	264.0	264.0	264.0	264.0	264.0	264.0
Yr Total Cost:	4,243	9,972	0	0	0	0	0	0	0	0
Cum Total Cost:	4,243	14,216	14,216	14,216	14,216	14,216	14,216	14,216	14,216	14,216

Resource: TRNLAB **TRANSPORT LABORER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	0.0	290.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	0.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0
Yr Total Cost:	0	7,534	0	0	0	0	0	0	0	0
Cum Total Cost:	0	7,534	7,534	7,534	7,534	7,534	7,534	7,534	7,534	7,534

INCLUDES ESCALATION COSTS

09/07/2001
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Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

PBS: OHFN11
WBS: 1.1.M.G
CTRL ACCT: MMMG
CHARGE NO: MMMG2
COMMENT NO: R1-F11-006, R1-F11-008

DATE: 07-Sep-01
PROJECT MGR: JIM BUCKLEY
CAM: JIM BUCKLEY
PREPARED BY: DAVE CLUTTER
FISCAL YEAR: 2001-2010

Resource: WSTENG **WASTE ENGINEER** **EOC:** LABOR
Res Dept: 951 **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,607.2	2,650.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,607.2	4,258.0	4,258.0	4,258.0	4,258.0	4,258.0	4,258.0	4,258.0	4,258.0	4,258.0
Yr Total Cost:	82,016	142,383	0	0	0	0	0	0	0	0
Cum Total Cost:	82,016	224,398	224,398	224,398	224,398	224,398	224,398	224,398	224,398	224,398

GRAND TOTALS:

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	4,008.7	16,856.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	4,008.7	20,865.0	20,865.0	20,865.0	20,865.0	20,865.0	20,865.0	20,865.0	20,865.0	20,865.0
Yr Total Cost:	232,168	1,372,218	0	0	0	0	0	0	0	0
Cum Total Cost:	232,168	1,604,386	1,604,386	1,604,386	1,604,386	1,604,386	1,604,386	1,604,386	1,604,386	1,604,386

CAM_____ CONTROL TEAM_____

INCLUDES ESCALATION COSTS

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR Thorium Requiring Treatment

PBS: 11 | Duration:
WBS: 1.1.1.M | Fiscal Year:
Control Account: MMMG

Project: Thorium Requiring Treatment-MMMG2
Campaign: Thorium Mixed Waste

Quantity Basis (containers and volume): Approximately 2,180 external cubic feet in 20 metal boxes

Charge Number: MMMG2
CAM: Larry Honigford

Containers for Off-site Shipment: 20
Total Containers minus ROBs: 20

1 day = 10 mhrs

Make Entles in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MLWRT/MPFTR) Req'd	Maintenance (MLWRT/MPFTR) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	QA (QACENG) Req'd	QA (QACENG) Mhrs
1. Campaign Planning		50		1,900	0.05	25	0.05	25	0	0	0	0	0	0	0.1	50	0.1	50	0	0	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection		17	287	1,053	3	522	1	174	0	0	0	0	0	0	0.5	87	1	174	0	0	0.1	17
Assumed Number of Samples/Visuals:	87																					
4. Characterization		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. Repackaging/Overpacking				1,335																		
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0.1	0	0.5	0	1	0	0	0	0	0
Boxes	20	10	378	1335	8	800	2	200	0.1	10	0	0	0.1	10	0.5	50	2	200	0	0	0	0
Drums	0	0	0	0	2	0	1	0	0.1	0	0	0	0.1	0	0.5	0	1	0	0	0	0	0
6. Container Movements				401																		
Shield blocks	100	10	96	345	1	100	0.5	50	0.5	50	0	0	0	0	0.2	20	1	100	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0
Drums	100	2	16	56	1	16	0.5	8	0.5	8	0	0	0	0	0.2	3	1	16	0	0	0	0
7. Loading and Shipping				222																		
ISOs	0	0	0	0	5	0	3	0	0.2	0	2	0	0.05	0	0.5	0	1	0	0	0	0	0
Metal Boxes	20	2	57	222	3	60	2	40	0	0	2	40	0.05	1	0.5	10	2	40	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0
Total Manhours by Skill						*1,523*		*497*		*68*		*40*		*11*		*220*		*580*		*0*		*17*

Activity	WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal. (S&HENG) Req'd	Safety Anal. (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning	0	0	0	0	0.1	50	0.1	50	0.1	50	2	1000	0.1	50	0.1	50	0	0	1	500	0	0
2. SSR	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
3. Sampling/Visual Inspection	0	0	0.2	35	0.05	9	0.05	9	0	0	0.1	17	0	0	0.05	9	0	0	0	0	0	0
4. Characterization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. Repackaging/Overpacking																						
ISOs	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	0	0	0.2	20	0.05	5	0.05	5	0	0	0.1	10	0.2	20	0.05	5	0	0	0	0	0	0
Drums	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
6. Container Movements																						
Shield blocks	0	0	0	0	0.05	5	0.05	5	0	0	0.1	10	0	0	0.05	5	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	0.05	1	0.05	1	0	0	0.1	2	0	0	0.05	1	0	0	0	0	0	0
7. Loading and Shipping																						
ISOs	0	0	0	0	0.05	0	0.05	0	0	0	1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	0.05	1	0.05	1	0	0	1.2	24	0.2	4	0.05	1	0	0	0	0	0	0
Drums	0	0	0	0	0.05	0	0.05	0	0	0	1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		*0*		*55*		*71*		*71*		*50*		*1,063*		*74*		*71*		*0*		*500*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	20	$1,200	$24,000
Drums	each	0	$40	$0
Full Anti-Cs	change	665	$16.00	$21,283
Normal Protective Clothing	change	169	$4.03	$679
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	0	$120	$0
Other Materials	each	20	$240	$4,800
Truck Freight	shipment	4	$4,600	$18,400
Shoring	shipment	4	$100	$400
SUBCONTRACTS	**Unit**	**Quantity**	**Rate**	**Total**
Inorganic Treatment	cu. ft.	0	$581	$224,600
Lab Analysis	sample	67	$1,675	$112,225
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
Envirocare LLW Fee	cu. ft.	2,200	$45	$99,000

WORKSHEET SUMMARY

Total Manhours	4,911	
Total Labor		**$197,802**
Total Materials		**$69,563**
Total Subcontracts		**$336,825**
Total Burial		**$99,000**
Total Cost		**$703,190**
Total Cost minus burial		**$604,190**

All costs are stated in FY01 Dollars

Comments and Assumptions:

1. Assumes all mixed wastes will be treated at an off-site location through Broad Spectrum.
2. Treatment costs obtained from WCS web page:
   Category A waste: 18,574 kilograms at $121,783
   Category C waste: 11,756 kilograms at $102,787
3. Transportation included in treatment costs
4. 5 boxes per shipment
5. Assumes double anti-c's (Tyvek outer garment)
6. Includes movement of 100 shield blocks. Movement of 10 shield blocks per day.
7. Burial cost at Envirocare MW cell @ $45 / cu.ft.
8. Item 3, Sampling/Visual Inspection includes RTR of 20 boxes.

Revised by: Larry Honigford
Date Revised: 08/10/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR THORIUM REQUIRING TREATMENT

PBS: 11
WBS: 1.1.M
Control Account: MMMG

Duration:
Fiscal Year:

Project: Thorium Requiring Treatment-MMMG2
Campaign: Wet and LLW Thorium Residues

Quantity Basis (containers and volume): Approximately 9,265 external cubic feet in 85 boxes

Charge Number: MMMG2
CAM: Larry Honigford

Containers for Off-site Shipment: 85
Total Containers minus ROBs: 85

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat (HAZWAT) Mhrs	MVO (MVOOPR) Req'd	MVO (MVOOPR) Mhrs	HEO (HEOOPR) Req'd	HEO (HEOOPR) Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor (TRNLAB) Mhrs	Maintenance (MILWRT/PIPFT) Req'd	Maintenance (MILWRT/PIPFT) Mhrs	Supervisor (OPRMGR) Req'd	Supervisor (OPRMGR) Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech (RADTEC) Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. (QACENG) Mhrs	QA (QACENG) Req'd	QA (QACENG) Mhrs	WAO (WSTENG) Req'd	WAO (WSTENG) Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech (S&HTEC) Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. (RADENG) Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. (S&HENG) Mhrs	Safety Anal. (S&HENG) Req'd	Safety Anal. (S&HENG) Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. (WSTENG) Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk (MPCREP) Mhrs	TO Writer (TPSREP) Req'd	TO Writer (TPSREP) Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions (BUYCON) Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. (PRJMGR) Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. (CLERKS) Mhrs
1. Campaign Planning		50		1900	0.05	25	0.05	25	0	0	0	0	0	0	0.1	50	0.1	50	0	0	0	0	0	0	0	0	0.1	50	0.1	50	0.1	50	2	1000	0.1	50	0.1	50	0	0	1	500	0	0
2. SSR	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
3. Sampling/Visual Inspection Assumed Number of Samples/Visuals: 30		6	99	351	3	180	1	60	0	0	0	0	0	0	0.5	30	1	60	0	0	0	0	0	0	0.2	12	0	0	0	0	0	0	0.1	6	0	0	0.05	3	0	0	0	0	0	0
4. Characterization		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. RTR				291																																								
Metal Boxes	85	7	60	291	1	74	0.5	37	0	0	0	0	0	0	0.2	15	1	74	0	0	1	74	0	0	0	0	0.05	4	0.05	4	0	0	0.1	7	0	0	0.05	4	0	0	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
6. Repackaging/Overpacking				5,956																																								
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0.1	0	0.5	0	1	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	85	43	1,690	5956	8	3440	2	860	0.1	43	0	0	0.1	43	1	430	2	860	0	0	0	0	0	0	0.2	86	0.05	22	0.05	22	0	0	0.1	43	0.2	86	0.05	22	0	0	0	0	0	0
Drums	0	0	0	0	2	0	1	0	0.1	0	0	0	0.1	0	0.5	0	1	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
7. Waste Processing				0																																								
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
8. Loading and Shipping				968																																								
ISOs	0	0	0	5	5	0	3	0	0.2	0	0	0	0.05	0	0.5	0	1	0	0	0	0	0	0	0	0.5	0	0.05	0	0.05	0	0	0	1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	85	9	257	963	3	270	2	180	0	0	2	180	0.05	5	0.5	45	2	180	0	0	0	0.0	0	0	0	0	0.05	5	0.05	5	0	0	0.8	72	0.2	18	0.05	5	0	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0.5	0	0.05	0	0.05	0	0	0	1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill						*3,989*		*1,162*		*43*		*180*		*48*		*570*		*1,224*		*0*		*74*		*0*		*98*		*80*		*80*		*50*		*1,128*		*154*		*83*		*0*		*500*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	35	$1,200	$42,000
Drums	each	0	$40	$0
Full Anti-Cs	change	1849	$9.68	$35,788
Normal Protective Clothing	change	257	$4.03	$1,034
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	85	$120	$10,200
Other Materials	each	85	$240	$20,400
NTS Truck Freight	shipment	17	$4,600	$78,200
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	17	$100	$1,700
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
WPRAP Processing (residues)	ton	0	$372	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	9,520	$6.57	$62,546
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY		
Total Manhours	9,460	
Total Labor		$338,076
Total Materials		$189,322
Total Subcontracts		$0
Total Burial		$62,546
Total Cost		$589,945
Total Cost minus burial		$527,398

All Costs are stated in FY01 Dollars

Comments and Assumptions:

1. Assumes waste will require processing prior to shipment to NTS
2. Assumes 35 shipping containers must be purchased
3. Visual inspection required for 30 containers
4. 5 boxes per shipment
5. Assumes decant liquids will be 300 gallons (6 per box)
6. Assumes double anti-c's required
7. Assumes 100% schedule factor for thorium work
8. All boxes will be RTR'd prior to shipping
9. Includes LLW containers.

Revised by: Larry Honigford
Date Revised: 08/10/2001

Control Team Review:

Project Review:

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR THORIUM REQUIRING TREATMENT

PBS 11 | Duration:
WBS 1.1.M | Fiscal Year:
Control Account: MMMG

Project: Thorium Requiring Treatment-MMMG2
Campaign: Hydrogen Generating Thorium Res

Quantity Basis (containers and volume): Approximately 2,180 external cubic

Charge Number: MMMG2
CAM: Larry Honigford

Containers for Off-site Shipment: 20
Total Containers minus ROBs: 20

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity		Days	PPE Count	Total Manhours	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MILWRT/PIPFT) Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp. (QACENG) Req'd	NTS Comp. Mhrs	QA (QACENG) Req'd	QA Mhrs	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng. (S&HENG) Req'd	Safety Eng. Mhrs	Safety Anal. (S&HENG) Req'd	Safety Anal. Mhrs	Waste Eng. (WSTENG) Req'd	Waste Eng. Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning		100		3800	0.05	50	0.05	50	0	0	0	0	0	0	0.1	100	0.1	100	0	0	0	0	0	0	0	0	0.1	100	0.1	100	0.1	100	2	2000	0.1	100	0.1	100	0	0	1	1000	0	0
2. SSR	1	16		640	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	320	0	0	0	0	0	0	0	0	0	0	0	0	2	320	0	0
3. Sampling/Visual Inspection Assumed Number of Samples/Visuals: 0		0	0	0	3	0	1	0	0	0	0	0	0	0	0.5	0	1	0	0	0	0	0	0	0	0.2	0	0	0	0	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
4. Characterization		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. RTR				68																																								
Metal Boxes	20	2	14	68	1	17	0.5	9	0	0	0	0	0	0	0.5	9	1	17	0	0	1	17	0	0	0	0	0.05	1	0.05	1	0	0	0.1	2	0	0	0.05	1	0	0	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0	0	0	0	0	0	0.5	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
6. Repackaging/Overpacking				1,385																																								
ISOs	0	0	0	0	2	0	1	0	0.1	0	0	0	0.1	0	0.5	0	1	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
Boxes	20	10	393	1385	8	800	2	200	0.1	10	0	0	0.1	10	1	100	2	200	0	0	0	0	0	0	0.2	20	0.05	5	0.05	5	0	0	0.1	10	0.2	20	0.05	5	0	0	0	0	0	0
Drums	0	0	0	0	2	0	1	0	0.1	0	0	0	0.1	0	0.5	0	1	0	0	0	0	0	0	0	0.2	0	0.05	0	0.05	0	0	0	0.1	0	0.2	0	0.05	0	0	0	0	0	0	0
7. Decanting/Processing				134																																								
ISOs	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
Metal Boxes	20	3	38	134	2	60	0.5	15	0.5	15	0	0	0	0	0.2	6	1	30	0	0	0	0	0	0	0	0	0.05	2	0.05	2	0	0	0.1	3	0	0	0.05	2	0	0	0	0	0	0
Drums	0	0	0	0	1	0	0.5	0	0.5	0	0	0	0	0	0.2	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	0.1	0	0	0	0.05	0	0	0	0	0	0	0
8. Loading and Shipping				305																																								
ISOs	0	0	0	2	5	0	3	0	0.2	0	0	0	0.05	0	0.5	0	1	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	1	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes	20	3	86	303	3	90	2	60	0	0	2	60	0.05	2	0.5	15	2	60	0	0	0	0	0	0	0	0	0.05	2	0.05	2	0	0	0.2	6	0.2	6	0.05	2	0	0	0	0	0	0
Drums	0	0	0	0	3	0	2	0	0	0	2	0	0.05	0	0.5	0	2	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0	0	1	0	0.2	0	0.05	0	0	0	0	0	0	0
Total Manhours by Skill					*1,017*		*334*		*25*		*60*		*12*		*224*		*407*		*0*		*17*		*0*		*20*		*429*		*109*		*100*		*2,021*		*126*		*109*		*0*		*1,320*		*0*

MATERIALS	Unit	Quantity	Rate	Total
ISOs	each	0	$2,000	$0
Metal Boxes	each	20	$1,200	$24,000
Drums	each	0	$40	$0
Full Anti-Cs	change	407	$9.68	$7,880
Normal Protective Clothing	change	123	$4.03	$497
3 Vehicles for Moves Repackaging	day	0	$165	$0
4 Vehicles for Loading	day	0	$220	$0
Absorbent	each	20	$120	$2,400
Other Materials	each	20	$272	$5,440
NTS Truck Freight	shipment	4	$4,600	$18,400
Envirocare Truck Freight	shipment	0	$5,598	$0
Shoring	shipment	4	$100	$400
Envirocare Rail Freight	rail car	0	$8,700	$0
Subcontracts	**Unit**	**Quantity**	**Rate**	**Total**
Lab Analysis	sample	0	$1,675	$0
WPRAP Processing (residues)	ton	0	$372	$0
BURIAL FEES	**Unit**	**Quantity**	**Rate**	**Total**
NTS Fee	cu. ft.	2,240	$6.57	$14,717
Envirocare Rail Car Fee	rail car	0	$10,600	$0
Envirocare LLW Fee	cu. ft.	0	$10	$0

WORKSHEET SUMMARY		
Total Manhours	6,330	
Total Labor		**$307,957**
Total Materials		**$59,017**
Total Subcontracts		**$0**
Total Burial		**$14,717**
Total Cost		**$381,691**
Total Cost minus burial		**$366,975**

All Costs are stated in FY01 Dollars

Comments and Assumptions:

1. Assumes waste will require processing prior to shipment to NTS
2. Assumes shipping containers must be purchased
3. Visual inspection required for all containers
4. 5 boxes per shipment
5. Assumes $216 per box for sand (include on Other Materials)
6. Assumes double anti-c's required
7. All boxes will be RTR'd after packaging, prior to shipment (10 boxes per day)
8. Added $12 cost estimate for 5 gallon buckets to other material cost

Revised by: Larry Honigford
Date Revised: 08/10/2001

Control Team Review: _____

Project Review: _____

WASTE DISPOSITION CAMPAIGN ESTIMATE WORKSHEET FOR THORIUM REQUIRING TREATMENT

PBS: 11 Duration:
WBS: 1.1.M Fiscal Year:
Control Account: MMMG

Project Thorium Requiring Treatment-MMMG2
Campaign Decanted Liquids from Thorium Campaigns

Quantity Basis (containers and volume): 300 gallons in 6 drums

Charge Number: MMMG2
CAM: Larry Honigford

Total Containers minus ROBs: 6

1 day = 10 mhrs

Make Entries in Yellow Shaded Areas Only

Activity	Days	PPE Count	Total Mhrs	Hazwat (HAZWAT) Req'd	Hazwat Mhrs	MVO (MVOOPR) Req'd	MVO Mhrs	HEO (HEOOPR) Req'd	HEO Mhrs	Tran. Labor (TRNLAB) Req'd	Tran. Labor Mhrs	Maintenance (MILWRT/PIPF Req'd	Maintenance Mhrs	Supervisor (OPRMGR) Req'd	Supervisor Mhrs	Rad Tech (RADTEC) Req'd	Rad Tech Mhrs	NTS Comp (QACENG) Req'd	NTS Comp Mhrs	QA (QACENG) Req'd	QA Mhrs
1. Campaign Planning	2		75	0.05	1	0.05	1	0	0	0	0	0	0	0.1	2	0.1	2	0	0	0	0
2. SSR 0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Sampling/Visual Inspection Assumed Number of Samples/Visuals 5	1	13	46	3	23	1	8	0	0	0	0	0	0	0.5	4	1	8	0	0	0	0
4. Characterization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. Liquid Bulking Drums 0	0	0	0	4	0	1	0	0	0	0	0	0.2	0	0.5	0	1	0	0	0	0	0
6. TSCA Shipping Tanker 0	0	0	0	3	0	1	0	0	0	0	0	0.2	0	0.5	0	2.5	0	0	0	0	0
7. Container Movements			42																		
ISOs 0	0	0	0	2	0	1	0	0.1	0	2	0	0	0	1	0	1	0	0	0	0	0
Metal Boxes 0	0	0	0	2	0	1	0	0.1	0	2	0	0	0	1	0	1	0	0	0	0	0
Drums 6	0.5	11	42	2	10	1	5	0.1	1	2	10	0	0	1	5	1	5	0	0	0	0
Total Manhours by Skill					*34*		*14*		*1*		*10*		*0*		*11*		*15*		*0*		*0*

Activity	WAO (WSTENG) Req'd	WAO Mhrs	Safety Tech (S&HTEC) Req'd	Safety Tech Mhrs	Rad Eng. (RADENG) Req'd	Rad Eng. Mhrs	Safety Eng (S&HENG) Req'd	Safety Eng Mhrs	Safety Ana (S&HENG) Req'd	Safety Ana Mhrs	Waste Eng (WSTENG) Req'd	Waste Eng Mhrs	MC&A Clerk (MPCREP) Req'd	MC&A Clerk Mhrs	TO Writer (TPSREP) Req'd	TO Writer Mhrs	Acquisitions (BUYCON) Req'd	Acquisitions Mhrs	Proj. Mgr. (PRJMGR) Req'd	Proj. Mgr. Mhrs	Admin. Spt. (CLERKS) Req'd	Admin. Spt. Mhrs
1. Campaign Planning	0	0	0	0	0.1	2	0.1	2	0.10	2	2	40	0.1	2	0.05	1	0	0	1	20	0.00	0
2. SSR 0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
3. Sampling/Visual Inspection Assumed Number of Samples/Visuals 5	0	0	0.2	2	0.05	0	0.05	0	0	0	0.1	1	0	0	0.05	0	0	0	0	0	0	0
4. Characterization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. Liquid Bulking Drums 0	0	0	1	0	0.05	0	0.05	0	0	0	2	0	0.2	0	0.05	0	0	0	0	0	0	0
6. TSCA Shipping Tanker 0	0	0	0.5	0	0.05	0	0.05	0	0	0	2	0	0.2	0	0	0	0	0	0	0	0	0
7. Container Movements																						
ISOs 0	0	0	0	0	0.05	0	0.05	0	0	0	0	0	0.2	0	0.05	0	0	0	0	0	0	0
Metal Boxes 0	0	0	0	0	0.05	0	0.05	0	0	0	0	0	0.2	0	0.05	0	0	0	0	0	0	0
Drums 6	0	0	0	0	0.05	0	0.05	0	0	0	1	5	0.2	1	0.05	0	0	0	0	0	0	0
Total Manhours by Skill		*0*		*2*		*3*		*3*		*2*		*46*		*3*		*2*		*0*		*20*		*0*

MATERIALS	Unit	Quantity	Rate	Total
Full Anti-Cs	change	13	$9.68	$125
Normal Protective Clothing	change	11	$4.03	$43
3 Vehicles- Moves/Repack	day	1	$165	$83
Labeling/Misc.Materials	each	0	$240	$0
Freight to Oak Ridge	shipment	0	$2,000	$0

SUBCONTRACTS	Unit	Quantity	Rate	Total
Commercial Treatment	gallon	0	$10	$0
Offsite Lab Analysis	sample	0	$1,675	$0
Required TSCA Analysis	batch	0	$47,000	$0

Worksheet Summary		
Total Manhours	164	
Total Labor		**$6,955**
Total Materials		**$250**
Total Subcontracts		**$0**
Total Cost		**$7,205**
Total Cost minus burial		**$7,205**

All costs are stated in FY01 Dollars.

Comments and Assumptions:
1. Assumes the only requirement for LLW liquids is movement to AWWT.
2. Assumes 300 gallons from wet thorium residues

Revised by: Larry Honigford
Date Revised: ######

Control Team Review:

Project Review:

SECTION 7

5.0 RISK PLAN

Risk/Opportunity Identification and Analysis Form

Project: Low Level Waste		PBS Number: 11			Total Baseline Dollars (Minimum Case):			$2,483,808		
Evaluator: Honigford, L.	Date: 03/28/01	WBS Number: 1.1.M.G								
CAM: Buckley	Date:	Control Account Number: MMMG								
Project Task	**Risk and/or Opportunity**	**Potential Impact**	**Internal Or External Driver**	**Impact Cost $ (Maximum Case)**	**Risk Impact Level**	**Risk Probability %**	**Risk Probability Level**	**Probable Cost $ (Likeliest Case)**	**Risk Critical Value**	**Risk Handling Strategy**
Planning	Unanticipated response requirements to oversite groups	Schedule Delay	Internal	$200,000.00	2	40	3	$80,000.00	2	Accept
Packaging	>2% unacceptable waste	Schedule delay, additional characterization, additional treatment requirements	Internal	$200,000.00	2	20	2	$40,000.00	2	Accept
Packaging	Unanticipated Unacceptable package encountered	Additional repackaging, schedule delay, package procurement	Internal	$50,000.00	1	25	2	$12,500.00	1	Accept
Packaging	Manpower Restrictions/Labor Restrictions	Schedule delay	Internal	$100,000.00	2	30	2	$30,000.00	2	Accept
Packaging	Existing packaging configuration more difficult to manage than expected	Schedule delays, new equipment requirements, replanning	Internal	$200,000.00	2	30	3	$60,000.00	2	Accept
Packaging	Fire	Schedule delay, replanning, equipment cost	Internal	$200,000.00	2	10	2	$20,000.00	2	Accept
Packaging	Absorbent requirements greater than anticipated	Higher material costs, longer packaging duration	Internal	$200,000.00	2	30	3	$60,000.00	2	Accept
Packaging	Significant Adverse weather impacts beyond normal	Schedule delay	Internal	$100,000.00	2	20	2	$20,000.00	2	Accept
Shipping	FEMP Shipping Program Shutdown	Schedule delay, additional activities to address shutdown issue	Internal	$600,000.00	2	10	2	$60,000.00	2	Accept
			Total:	$1,850,000.00				$382,500.00		
Shipping	NTS facility shutdown	Schedule delay, identification of alternative disposal facilities, disposal cost, new program development	External	$1,200,000.00	3	5	1	$60,000.00	2	
Shipping	Accelerate shipment of Mixed waste	Schedule Acceleration	Internal	($300,000.00)	2	30	3	($90,000.00)	2	