FLUOR FERNALD CLOSURE PLAN
BASIS OF ESTIMATE

PBS-01
FACILITY AND PROJECT SUPPORT

SEPTEMBER 2001

2503-PL-0009
REVISION 1

Part 1: AMGT - Management
Section 1: AMGT1 – Management Staff

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- 1.2 Assumptions/Exclusions
  - 1.2.1 Assumptions
  - 1.2.2 Exclusions
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- 1.4 Scope of Work
  - 1.4.1 Facility and Project Support Management
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  - 1.4.4 Subcontracts/Materials

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3.0 Manpower Plans
- 3.1 Management Staff

4.0 Estimate
5.0 Risk Plan

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- 1.3 Drivers
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- 2.2 Transportation
- 2.3 Maintenance
- 2.4 Porters/Laundry
- 2.5 Facilities Support
- 2.6 Labor Hour Support and Planning

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  - 1.3.1 Administrative
  - 1.3.2 Physical
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    - 1.4.2)4 Subcontracts/Materials
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    - 1.4.3)2 Quantification/Overtime
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Part 2: ASVC - Infrastructure Services
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  - 1.2.1 Assumptions
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- 1.3 Drivers
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    - 1.4.1)2 Quantification/Overtime
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- 1.3 Drivers
- 1.4 Scope of Work
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    - 1.4.1)3 ODCs
    - 1.4.1)4 Subcontracts/Materials

2.0 Manpower Plans
- 2.1 Quality Control Operations
- 2.2 ES&H and Radiological Operations
- 2.3 Field Procurement

3.0 Estimate

4.0 Risk Plan

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1.0 Narrative
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- 1.2 Assumptions/Exclusions
  - 1.2.1 Assumptions
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- 1.3 Drivers
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    - 1.4.1)3 ODCs
    - 1.4.1)4 Subcontracts/Materials

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1.0 Narrative
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  - 1.2.1 Assumptions
  - 1.2.2 Exclusions
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- 1.3 Drivers
  - 1.3.1 Administrative
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- 1.4 Scope of Work
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  - 1.2.3 Government-Furnished Equipment/Services
- 1.3 Drivers
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  - 1.4.1 Temporary Facility Leases and Purchases
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    - 1.4.1)3 ODCs
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2.0 Estimate
3.0 Risk Plan

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- 1.3 Drivers
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    - 1.2.2.2 Communications Center
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  - 1.1.4 Construction of Pre-Engineered Building for Equipment Disposition Function and Renovation of T-33
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  - 1.2.1 Assumptions
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    - 1.2.1.2 Relocation of Trailer 86 and Trailer 87
    - 1.2.1.3 Relocation of Trailer 84
    - 1.2.1.4 Construction of Pre-Engineered Building for Equipment Disposition Function and Renovation of T-33
  - 1.2.2 Exclusions
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    - 1.2.2.2 Relocation of Trailer 86 and Trailer 87
    - 1.2.2.3 Relocation of Trailer 84
    - 1.2.2.4 Construction of Pre-Engineered Building for Equipment Disposition Function and Renovation of T-33
  - 1.2.3 Government-Furnished Equipment/Services
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  - 1.3.2 Relocation of Trailer 86 and Trailer 87
  - 1.3.3 Relocation of Trailer 84
  - 1.3.4 Construction of Pre-Engineered Building for Equipment Disposition Function and Renovation of T-33
- 1.4 Project Physical Description
  - 1.4.1 Renovation of Southwest Boiler House (93A)
  - 1.4.2 Relocation of Trailer 86 and Trailer 87
  - 1.4.3 Relocation of Trailer 84
  - 1.4.4 Construction of Pre-Engineered Building for Equipment Disposition Function and Renovation of T-33
- 1.5 Project Plan/Technical Scope and Quantification
  - 1.5.1 Renovation of Southwest Boiler House (93A)
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    - 1.5.1)2 Quantification Table
  - 1.5.2 Relocation of Trailer 86 and Trailer 87
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    - 1.5.2)2 Quantification Table

Part 4: APRJ – FACILITY PROJECTS
Section 4: APRJ4 – Miscellaneous Relocation Projects (Continued)

1.5.3 Relocation of Trailer 84
- 1.5.3)1 Plan/Scope
- 1.5.3)2 Quantification Table

1.5.4 Construction of Pre-Engineered Building for Equipment Disposition Function and Renovation of T-33
- 1.5.4)1 Plan/Scope
- 1.5.4)2 Quantification Table

Part 4: APRJ – FACILITY PROJECTS
Section 5: APRJ5 – Upgrades

1.0 Narrative
- 1.1 Overview
  - 1.1.1Roof/HVAC
  - 1.1.1 Road Upgrades
  - 1.1.2 Plant 6 Water Management System
- 1.2 Assumptions/Exclusions
  - 1.2.1 Assumptions
    - 1.2.1.1Roof/HVAC
    - 1.2.1.1 Road Upgrades
    - 1.2.1.2 Plant 6 Water Management System
  - 1.2.2 Exclusions
    - 1.2.2.1Roof/HVAC
    - 1.2.2.21.2.2.1 Road Upgrades
    - 1.2.2.2 Plant 6 Water Management System
  - 1.2.3 Government-Furnished Equipment/Services
- 1.3 Drivers
  - 1.3.1Roof/HVAC
  - 1.3.21.3.1 Road Upgrades
  - 1.3.2 Plant 6 Water Management System
- 1.4 Project Physical Description
  - 1.4.1Roof/HVAC
    - 1)Task #1 - Laboratory Building (11) South Corridor Roof Replacement
  - 1.4.21.4.1 Road Upgrades
    - 1) Task #1 – West Parking Lot Area and South Access Road
    - 2) Task #2 – East Parking Lot Area and North Access Road
  - 1.4.2 Plant 6 Water Management System
- 1.5 Project Plan/Technical Scope and Quantification
  - 1.5.1Roof/HVAC
    - 1) Task #1 – Laboratory Building (11) South Corridor Roof Replacement
      - 1.1)Plan/Scope
      - 1.2)Quantification Table
  - 1.5.2 Road Upgrades
    - 1) Task #1 – West Parking Lot Area and South Access Road
      - 1.1) Plan/Scope
    - 2) Task #2 - East Parking Lot Area and North Access Road
      - 2.1) Plan/Scope
      - 2.2) Quantification
      - 2.3) ODCs
      - 2.4) Subcontract
  - 1.5.3 Plant 6 Water Management System
    - 1) Plan/Scope
    - 2) Quantification

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-AC24-010H20115	3

5. WBS ELEMENT CODE	6. WBS ELEMENT TITLE
1.1.A	PBS 01 FACILITY AND PROJECT SUPPORT

7. APPROVED CP NO.	8. DATE OF CHANGES
NEW PER CP# FY0115-0001-00	12/01/2000

9. SYSTEM DESIGN DESCRIPTION	10. BUDGET AND REPORTING NUMBER
CERCLA/ACA	EW05H3010

11. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Subcontracts
Materials
ODCs

b. TECHNICAL CONTENT:

The Facility and Project Support element provides management of site infrastructure components and support to site projects. The element is defined further into these subordinate elements:

1.1.A.A Management
1.1.A.B Infrastructure Services
1.1.A.C Field Operations
1.1.A.D Facility Projects

c. SCOPE OF WORK:

The Facility and Project Support element encompasses the following activities:

1.1.A.A Management - Provides the administrative management team responsible for administrative oversight and support, integration, and project controls within the Facility and Project Support Project. Union officers and labor management council activities are also included in this management account.

1.1.A.B Infrastructure Services - Provides continuity of site infrastructure in the areas of property, transportation, maintenance, porters and laundry, facility support, and labor hour support and planning.

1.1.A.C Field Operations - Provides field support to site projects in the areas of quality control, environmental safety and health and radiological operations,

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-AC24-010H20115	3

5. WBS ELEMENT CODE	6. WBS ELEMENT TITLE
1.1.A	PBS 01 FACILITY AND PROJECT SUPPORT

7. APPROVED CP NO.	8. DATE OF CHANGES
NEW PER CP# FY0115-0001-00	12/01/2000

9. SYSTEM DESIGN DESCRIPTION	10. BUDGET AND REPORTING NUMBER
CERCLA/ACA	EW05H3010

11. ELEMENT TASK DESCRIPTION

and field procurement.

1.1.A.D Facility Projects - Provides for off-site building and on-site trailer leases as well as the discrete projects necessary to maintain site infrastructure. The discrete projects include installation of the new administrative trailer complex and medical 6-plex trailer, miscellaneous relocation projects, roof and HVAC building upgrades, and site road repairs.

This scope also includes holding accounts established for the purchase and accounting of stores items.

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.A	PBS 01 FACILITY AND PROJECT SUPPORT	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R. NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3120	PROGRAM SUPPORT & OVERSIGHT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
CHANGE PER CP# FY01-0115-0001-00		12/00 - 09/09
12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ONE LINE)	
AHLD	HOLDING ACCOUNT	

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Materials

b. TECHNICAL CONTENT:

This charge number is a holding account for the purchase and cost disbursement of store items. Stores items are those materials and supplies that are stocked and stored in a warehouse off-site, that are listed in the stores catalogs as standard items in the stores inventory.

c. SCOPE OF WORK:

Provides for materials/supplies that are stocked and listed as stock in the stores catalog & sub-stores, including Common Use Stores, Laundry Sub-Stores, Garage Sub-Stores, Laboratory Sub-Stores, and Excess Stores Inventory.

d. WORK SPECIFICALLY EXCLUDED:

Labor to operate receiving and shipping
Labor associated with stocking and issuance of materials/supplies
Equipment associated with the storage facilities
Storage space rental/lease
Coal/gas for Boiler Plant
Transportation cost

Project Manager	Control Account Manager	Control Team Manager
L. Hampshire	R. Nichols	Rodney Whitaker

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.A	PBS 01 FACILITY AND PROJECT SUPPORT	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R. NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3120	PROGRAM SUPPORT & OVERSIGHT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
CHANGE PER CP# FY01-0115-0001-00		12/00 - 09/02
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
AHLD1	COMMON USE STORES	

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Materials

b. TECHNICAL CONTENT:

This charge number is a holding account for the purchase and cost disbursement of common use store items. Stores items are those materials and supplies that are stocked and stored in a warehouse, on and off-site, that are listed in the stores catalogs as standard items in the stores inventory.

c. SCOPE OF WORK:

Provides for materials/supplies that are stocked and listed as stock in the stores stock catalog.

d. WORK SPECIFICALLY EXCLUDED:

- Labor to operate receiving and shipping.
- Labor associated with stocking and issuance of materials/supplies.
- Equipment associated with the stores facilities.
- Storage space rental/lease.
- Coal/gas for Boiler Plant.
- Transportation cost.

Project Manager	Control Account Manager	Control Team Manager
L. Hampshire	R. Nichols	Rodney Whitaker

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.A	PBS 01 FACILITY AND PROJECT SUPPORT	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R. NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3120	PROGRAM SUPPORT & OVERSIGHT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
CHANGE PER CP# FY01-0115-0001-00		12/00 - 09/02
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
AHLD2	GARAGE SUB-STORES	

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Materials

b. TECHNICAL CONTENT:

This charge number is a holding account for the purchase and cost disbursement of garage sub-stores items. Stores items are those materials and supplies that are stocked and stored in a warehouse, on and off-site, that are listed in the stores catalogs as standard items in the stores inventory.

c. SCOPE OF WORK:

Provides for materials/supplies that are stocked and listed as stock in the stores stock catalog.

d. WORK SPECIFICALLY EXCLUDED:

- Labor to operate receiving and shipping.
- Labor associated with stocking and issuance of materials/supplies.
- Equipment associated with the stores facilities.
- Storage space rental/lease.
- Coal/gas for Boiler Plant.
- Transportation costs.

Project Manager	Control Account Manager	Control Team Manager
		Rodney Whitaker

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.A	PBS 01 FACILITY AND PROJECT SUPPORT	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R. NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3120	PROGRAM SUPPORT & OVERSIGHT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
CHANGE PER CP# FY01-0115-0001-00		12/00 - 09/02
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
AHLD3	LAUNDRY SUB-STORES	

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Materials

b. TECHNICAL CONTENT:

This charge number is a holding account for the purchase and cost disbursement of laundry sub-stores items. Stores items are those materials and supplies that are stocked and stored in a warehouse, on and off-site, that are listed in the stores catalogs as standard items in the stores inventory.

c. SCOPE OF WORK:

Provides for materials/supplies that are stocked and listed as stock in the stores stock catalog.

d. WORK SPECIFICALLY EXCLUDED:

- Labor to operate receiving and shipping.
- Labor associated with stocking and issuance of materials/supplies.
- Equipment associated with the stores facilities.
- Storage space rental/lease.
- Coal/gas for Boiler Plant.
- Transportation costs.

Project Manager	Control Account Manager	Control Team Manager
L C H Hampshire	R Nichols	Rodney Whitaker

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.A	PBS 01 FACILITY AND PROJECT SUPPORT	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R. NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3120	PROGRAM SUPPORT & OVERSIGHT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
CHANGE PER CP# FY01-3712-0001-00		12/00 - 09/02
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
AHLD4	LABORATORY SUB-STORES	

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Materials

b. TECHNICAL CONTENT:

This charge number is a holding account for the purchase and cost disbursement of lab sub-store items. Stores items are those materials and supplies that are stocked and stored in a warehouse, on and off-site, that are listed in the stores catalogs as standard items in the stores inventory.

c. SCOPE OF WORK:

Provides for materials/supplies that are stocked and listed as stock in the stores stock catalog.

d. WORK SPECIFICALLY EXCLUDED:

- Labor to operate receiving and shipping.
- Labor associated with stocking and issuance of materials/supplies.
- Equipment associated with the stores facilities.
- Storage space rental/lease.
- Coal/gas for Boiler Plant.
- Transportation costs.

Project Manager	Control Account Manager	Control Team Manager

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.A	PBS 01 FACILITY AND PROJECT SUPPORT	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R. NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3120	PROGRAM SUPPORT & OVERSIGHT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
CHANGE PER CP# FY01-3712-0001-00		12/00 - 09/02
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
AHLD5	EXCESS STORES INVENTORY	

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Materials

b. TECHNICAL CONTENT:

This charge number is a holding account for the purchase and cost disbursement of excess stores items. Stores items are those materials and supplies that are stocked and stored in a warehouse off-site, that are listed in the stores catalogs as standard items in the stores inventory.

c. SCOPE OF WORK:

Stores items are those materials and supplies that are stocked and stored in a warehouse off-site, that are listed in the stores catalogs as standard items in the stores inventory.

d. WORK SPECIFICALLY EXCLUDED:

- Labor to operate receiving and shipping.
- Labor associated with stocking and issuance of materials/supplies.
- Equipment associated with the stores facilities.
- Storage space rental/lease.
- Coal/gas for Boiler Plant.
- Transportation costs.

Project Manager	Control Account Manager	Control Team Manager
L. A. Hampshire	R. Nichols	Rodney Whitaker

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-AC24-010H20115	4

5. WBS ELEMENT CODE	6. WBS ELEMENT TITLE
1.1.A.A	MANAGEMENT

7. APPROVED CP NO.	8. DATE OF CHANGES
NEW PER CP# FY0115-0001-00	12/01/2000

9. SYSTEM DESIGN DESCRIPTION	10. BUDGET AND REPORTING NUMBER
CERCLA/ACA	EW05H3010

11. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Materials
ODCs
Subcontracts

b. TECHNICAL CONTENT:

This element provides management to Facility and Project Support activities.

c. SCOPE OF WORK:

The Management element provides the administrative management team responsible for administrative oversight and support, integration, and project controls within the Facility and Project Support Project. Union officers and labor management council activities are also included in this management account.

WORK SCOPE DEFINITION
(Control Account)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	05/01/2001	Page 1

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.A.A	MANAGEMENT	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L HAMPSHIRE	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW PER CP# FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ONE LINE)	
AMGT	MANAGEMENT	

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Materials
ODCs
Subcontracts

b. TECHNICAL CONTENT:

This element provides management to Facility and Project Support activities.

c. SCOPE OF WORK:

The Management element provides the administrative management team responsible for administrative oversight and support, integration, and project controls within the Facility and Project Support Project. Union officers and labor management council activities are also included in this management account.

d. WORK SPECIFICALLY EXCLUDED:

Project Manager	Control Account Manager	Control Team Manager

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.A.A	MANAGEMENT	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-001-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
AMGT1	MANAGEMENT	

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Subcontractor
Materials
ODC's

b. TECHNICAL CONTENT:

The Maintenance and Infrastructure Support (M&IS) Management account provides:

- Project management and integration functions for all projects within the M&IS division, which is responsible for Infrastructure Services and Field Operations.

- Management and support functions for Infrastructure Services, which includes Property, Transportation, Maintenance, Porter/Laundry, Facilities Support, and Labor Hour Support and Planning.

- Management and support functions for Field Operations, which includes Field Procurement, QC Operations, and ES&H & Rad Operations.

- PBS and Project Controls support for M&IS and integration and administration activities for M&IS as well as Demolition Projects.

- Activities of Company Paid Fernald Atomic Trades and Labor Council (FAT&LC) Officers.

- The M&IS Management and Administration account provides for the relocation of M&IS Teaming Partners.

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.A.A	MANAGEMENT	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-001-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
AMGT1	MANAGEMENT	

14. ELEMENT TASK DESCRIPTION

c. SCOPE OF WORK:

- M&IS Management and Support
- PBS Management provides oversight for key issues that affect the PBS. This includes budget, control, work scope finalization, and primary DOE interaction.
- M&IS Infrastructure Services Management and Support
- M&IS Project Control including planning, scheduling, cost control change proposal preparation, forecasts, Estimates to Complete (ETC), and Actual Cost of Work Performed (ACWP), accruals, funding requirements, financial commitment tracking, and performance reporting
- M&IS and Demolition Projects Integration and Administration
- Records Management Program Coordination
- Commitment Tracking
- Project and Safety Integration including inter- and intra- project administrative and safety activities, and inter- union activities
- Space and Training Coordination
- Required Reading and Lessons Learned Coordination
- Document Review Coordination
- Time reporting coordination and assessment
- Credit Card purchasing
- EDR/FDR and PEP Coordination
- Administrative Support for Independent Safety Review Committee (ISRC)
- Clerical Support including maintaining office supplies and equipment, preparation of documents and presentations, maintaining managers' schedules, scheduling of travel, conferences and rooms, and organization chart maintenance.
- The Clean Air Program, which is currently housed in the FC&DP support account, will be transferred to Environmental Compliance in 1st Quarter FY2002.
- Union activities: The President of FAT&LC, in addition to three (3) employees from within the bargaining unit, as identified by FAT&LC shall provide services to the Company that promote safe and efficient operations and help to facilitate a speedy and pro-active labor relations program. These services

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.A.A	MANAGEMENT	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-001-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
AMGT1	MANAGEMENT	

14. ELEMENT TASK DESCRIPTION

will include the following: obtain views of their union members, impart information to employees, prevent disputes between employees and the employer, provide a responsive process of exchange of documents, have phone service manned so that an exchange of phone messages can occur, permit speedy scheduling of, transfer location of, and cancellation of meetings, facilitate immediate safety inspection, review work process, and changes there to, participate in Enhanced Work Planning (EWP), participation on the Fluor Fernald/DOE Central Safety Committee, and discuss changes that may require a waiver of agreement clauses. Also the President of the FAT&LC (along with the manager of IR) shall jointly chair the Joint Labor Management Committee and shall develop procedures of operation and publish meeting agenda and issue minutes of each meeting.

- The charge number will include labor and supplies, office equipment, and materials; site, technical and professional training; business travel and other direct costs (ODC) associated with these activities.
- This charge number will continue to provide administrative support activities for Demolition Projects including space coordination, records management and custodianship, training, commitment tracking, conference room and meeting scheduling, and preparation of correspondence, presentations, and organization charts.

d. WORK SPECIFICALLY EXCLUDED:

- M&IS organizational elements, which include Field Procurement, ES&H and Rad Operations, and QC Operations, which are included in their own charge numbers.
- Project Control labor supporting D&D projects, which is included in D&D control accounts.
- Computer purchases and upgrades
- Fluor Fernald General and Administrative Budget.
- Does not include project related and other non-union related activities for company paid union officers.

SECTION 1

1.0 NARRATIVE

1. PROJECT TITLE: FACILITY AND PROJECT SUPPORT	2. DATE: 09/10/01	3. PBS#: 01
4. WBS ELEMENT CODE: 1.1.A.A.	5. WBS ELEMENT TITLE: MANAGEMENT STAFF	
6. CAM NAME/ PHONE: ROBERT NICHOLS/LYLE HAMPSHIRE	7. CAM SIGNATURE:	
8. ORIGINAL/ CHANGE SCOPE/ PER CP#:	9. CONTROL ACCOUNT: AMGT	

PART 1: AMGT – MANAGEMENT
Section 1: AMGT1 – Management Staff

1.0 NARRATIVE

1.1 OVERVIEW

The Maintenance and Infrastructure Support (M&IS) Project Management and Administration account provides project management and integration functions for all projects within the M&IS division, which is responsible for Infrastructure Services and Field Operations, which includes ~~Waste Acceptance Operations,~~ Field Procurement, QC Operations, and ES&H & Rad Operations.

R1-D-133

The M&IS Management and Administration account provides management and support functions for Infrastructure Services, which includes: Property, Maintenance, Transportation, Porter/Laundry, Facilities Support, and Labor Hour Support and Planning.

The M&IS Management and Administrative account provides PBS and Project Controls support for M&IS and integration and administration activities for M&IS as well as Demolition Projects.

The M&IS Management and Administration account provides for the activities of Company Paid Fernald Atomic Trades and Labor Council (FAT&LC) Officers.

1.2 ASSUMPTIONS/EXCLUSIONS

1.2.1 Assumptions

- The charge number will include labor and supplies, office equipment, and materials; site, technical and professional training; business travel and other direct costs (ODC) associated with these activities

- This charge number will continue to provide ~~include~~ administrative support activities for Demolition Projects including space coordination, records management and custodianship, training, commitment tracking, conference room and meeting scheduling, and preparation of correspondence, presentations, and organization charts.

R1-D-034

R1-F01-012

- This charge number includes $100,000 for relocation cost ~~for~~ of four Teaming Partners at a cost of ~~$100~~25,000 per relocation

- The Clean Air Program, which is currently housed in the FC&DP support account, will be transferred to Environmental Compliance in 1st Quarter FY2002

- The scope of work performed by the individuals who participate in activities described in the Fernald Atomic Trades and Labor Council (FAT&LC) Agreement will not change with respect to participation on labor-management committees, councils, negotiations, and support activities

- FAT&LC Collective Bargaining Agreement (CBA) negotiations will not change these related elements

R1-D-035

- Manpower calculations are based on the following four possible sources: Historical Data (HD), Industry Standard (IS), Composite of HD & IS (Comp), and Professional Judgement (PJ). See Calculation Table ~~in~~ following Section ~~V~~ 1.4.4 for calculations by work scope activity/sub activity.

R1-F01-002

- Other Direct Costs (ODCs) are based on FY00 actual cost of work performed and budgeted manpower (FTEs). ~~, as follows: ODC$s/FTEs. Minimum of $100/FTE will be used if FY00 calculations are < $100/FTE.~~ See Section 1.4.3 for quotient, by work scope function.

R1-D-048

- ~~Premium~~ Overtime is based on FY00 actual cost of work performed overtime hours (OT) and regular (Reg) hours, as follows: OT/Reg. See Section 1.4.2 for quotient, by work scope function.

- Material rates are broken down into two parts: 1-General Materials and 2-Additional Materials. General Materials are based on data supplied by Estimating Services. Additional Materials are based on FY00 ACWP data. See section 1.4 for materials rates.

- Subcontractor dollars are based on existing subcontracts at time of this baseline and anticipated new subcontracts not currently in place.

R1-F01-001

- Dollar amounts are unescalated
- All calculations for manpower, subcontracts, materials, and ODCs are based on a 12-month year for 2002, 2003, 2004, 2005, 2006, 2007, 2008, and 2009
- All overtime is planned overtime

- Assume that all work activities are based on a 40-hour workweek
- The basis of this estimate assumes the use of Remediation Schedule, and Execution 6 Scenario
- Sales Tax @ 6% for all taxable items
- Estimate is expressed in FY01 dollars
- Estimate represents budget for the length of this charge number

1.2.2 Exclusions

R1-D-423

- ~~Charges for Fernald project work will NOT be allocated to this charge number. Project work is that work activity that is covered by another Project's scope~~ Project activity that is covered by a project's scope will not be allocated to this charge number.

R1-D-422

R1-D-423

- ~~Charges for M&IS organizational elements which include Waste Acceptance Organization (WAO), Field Procurement, ES&H and Rad Operations, and QC Operations which are included in their own control accounts~~ Management and administrative support charges for M&IS organizational elements, which include Filed Procurement, ES&H and Rad Operations, and QC Operations, which are included in their own control accounts.

- ~~Charges for Project Control organization members who support D&D projects, which are, included in D&D control accounts.~~

R1-D-423

- Does not include ~~non-union~~ project-related and other nonunion-related activities for Company-Paid Union Officers

R1-F01-001

- Computer purchases and upgrades
- Does not include Fluor Fernald General Administrative Cost

1.2.3 Government-Furnished Equipment/Services

None

1.3 DRIVERS

- Fernald Atomic Trades and Labor Council (FAT&LC) Agreement (CBA)

1.4 SCOPE OF WORK

1.4.1 Facility and Project Support Management

R1-D-036
- M&IS Management and Support
- ~~Executive Sponsorship of Florida International University activities~~

R1-D-037
- ~~Corporate Knowledge Management Project Management Committee~~
- PBS Management provides oversight for key issues that affect the PBS. This includes budget and funding, change control, work scope finalization, and primary DOE interaction

R1-D-424
- M&IS Infrastructure Services Management and Support
- M&IS Project Control including planning, scheduling, cost control change proposal preparation, forecasts, Estimates to Complete (ETC), and Actual Cost of Work Performed (ACWP), accruals, funding requirements, financial commitment tracking, and performance reporting
- M&IS and Demolition Projects Integration and Administration
- Records Management Program Coordination
- Commitment Tracking
- Project and Safety Integration including inter- and intra- project administrative and safety activities, and inter- union activities
- Space Coordination and Training Coordination
- Required Reading and Lessons Learned Coordination
- Document Review Coordination
- Time reporting coordination and assessment
- Credit Card purchasing
- EDR/FDR and PEP Coordination

R1-F01-013
- ~~ISRC Support~~Administrative Support for Independent Safety Review Committee (ISRC)

- Clerical Support including maintaining office supplies and equipment, preparation of documents and presentations, maintaining managers' schedules, scheduling of conferences and rooms, and organization chart maintenance

The following Union activities are included in the scope of work for this charge number:

- CBA SECTION 10-5 - Company Paid FAT&LC Officers

- The President of FAT&LC, in addition to three (3) employees from within the bargaining unit, as identified by FAT&LC shall provide services to the Company that promote safe and efficient operations and help to facilitate a speedy and pro-active labor relations program.

- These tasks will include the following: obtain views of their union members, impart information to employees, prevent disputes between employees and the employer, provide a responsive process of exchange of documents, have phone service manned so that an exchange of phone messages can occur, permit speedy scheduling of, transfer location of, and cancellation of meetings, facilitate immediate safety inspection, review work process, and changes there to, participate in Enhanced Work Planning (EWP), participation on the FDF/DOE Central Safety Committee, discuss changes that may require a waiver of agreement clauses

- The employees described in above will be paid at their regular rate for all hours, not exceed 40 hours in any work week, unless specifically assigned by the employer to exceed that amount. Further it is agreed that the present practice of providing the current facility for the use of FAT&LC with its ancillary furnishings, equipment and supplies shall be continued for the duration of the labor Agreement

- CBA SECTION 13-2 - Meetings and Agenda
  The Company's Manager of IR and the President of the FAT&LC shall jointly chair the Joint Labor Management Committee. The Company and FAT&LC shall jointly coordinate Joint Labor Management Committee activities, develop procedures of operation, and publish meeting agenda and issue minutes of each meeting. Standing agenda items for the Joint Labor Management Committee meeting shall include, but not be limited to cost and efficiency, Continuous Performance Improvement (CPI) and Total Quality Management (TQM), manpower requirements and training

R1-D-048

1.4.2 Quantification/~~Premium~~ Overtime

(Refer to Quantification Table)

R1-D-048

~~Premium~~ Overtime -
~~Old Charge # 7BAL1 - .0000~~

~~Old Charge # 3FCS1 - .0004~~
~~Average = .0002 x regular hours~~ No Planned Overtime

1.4.3 ODCs

ODC 600:
None

ODC 700:
Old Charge # 7BAL1 - None
Old Charge # 3FCS1 - $241/FTE
Used $241/FTE for AMGT

ODC Travel:
Old Charge # 7BAL1 - $582/FTE
Old Charge # 3FCS1 - $339/FTE
Average = $460/FTE

R1-F01-012

ODC Relocation:
4 Relocations (1 per year FY02 - FY05) @ $25k/year

1.4.4 Subcontracts/Materials

Subcontracts: NONE

Materials:

General Materials: $594/FTE
Additional Materials:

Materials/FTE NONE
Materials/Year NONE

Quantification Table
Facility and Project Support Management
Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity	Sub-Activity	Calc Type	Calculations
1.4.1)2 Management and Administration			
M&IS Management and Support		HD	.1 clerk, .8 exe admin, .71 prog mgr ~~1.3 Pgm Mgr; .7 Exec. Adm.; .1 Clerk~~
R1-D-036 ~~Executive Sponsorship of FIU~~		HD	~~.05 Pgm Mgr; .1 Exec. Adm.~~
~~Corporate Knowledge Management Project Management Committee~~		HD & PJ	~~.05 Pgm Mgr~~
R1-D-037 Participate on Labor Standards Review activity		HD & PJ	.05 prog mgr ~~.1 Pgm Mgr;~~
Project/Safety/Mgt/Union Integration		HD & PJ	.2 admin mgr, .7 tpsr, .2 prog mrg ~~.4 Pgm Mgr, .7TPS Rep, .2 Adm Mgr~~
Infrastructure Services Mgt and Support			1 clerk, 1 proj mgr ~~1 PRJ Mgr, 1 Clerk~~
PBS Manager		HD	~~1 tpsr 1 Engineer~~
Project Controls		HD & PJ	1 psr, .5 pc mgr, 1.25 sched, 1.63 cost anal, ~~2 PJC Sch, 3 Cst Anl, .5 PJC Mgr, 1 PJS Rep~~
M&IS and Demolition Proj. Admin & Integ.	~~Supvervision~~ of below activity:	HD	.6 adm mgr ~~.6 Adm Mgr~~
	Records Mgt Program	HD	.25 clerk, .2 dpt admin, .9 info rec, ~~.9 INR Rep, .25 Dep Adm, .25 Clerks~~
	M&IS & DP EDR/FDR Coord.	HD & PJ	.2 tpsr ~~.2 TPS Rep~~
	PEP Coord.		.2 dpt adm ~~.25 Dep Adm.~~
	ISRC Support		.16 dpt adm ~~.2 Dep Adm.~~
	Commitment Tracking		.39 dpt adm ~~.5 Dep Adm~~
	Space Coordination		~~.2 clerk .2 Clerks~~
	Training Coordination		.2 clerk, .2 exec admin, .1 info rec ~~.2 Clerks; .1 INR Rep, .2 Exec. Adm.~~
	Required Readling/Lessons Learned Coord & Core Team		.16 dpt adm, .1 tpsr ~~.2 Dep Adm; .1 TPS Rep~~
	Document Review Coord.		.16 dpt adm ~~.2 Dep Adm~~
	Time Reporting Coord./Assess		.2 adm mgr, .05 prog mgr ~~.1 Pgm Mgr, .2 ADM Mgr~~
R1-F01-003	Clerical Spt, including org charts		.25 clerk, .08 dpt adm ~~.25 Clerk, .1 Dep Adm~~
	Credit Card Purchasing		~~.16 dpt adm .2 Dep Adm.~~ See attached spreadsheet ID 21

R1-F01-003	FAT&LC Agreement (CBA)			1 Millwright, 1 Painter, 1 HEO, 1 ~~1 Millwright, 1 Painter, 1 HEO, 1 Electrician~~

SECTION 1

2.0 MANPOWER PLANS

Manpower Planning Sheet (CR2)

MPS # 1AA01 FACILITY AND PROJECT SUPPORT MANAGEMEN

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
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
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				

Administration	Clerks	54.50	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1.7	1.5	1.5
Craft Labor	Millwright	36.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Craft Labor	Electrician	36.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Craft Labor	Painter	36.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Transportation Labor	Heavy Equipment Operator	36.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Maintenance	Project Support Rep.	12.00	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Project Management	Project Mgr.	24.00	1	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
Project Controls	Project Controls Mgr.	10.00	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	0	0	0
Project Controls	Scheduler	30.90	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.5	0.5	0.5	0.5
Project Controls	Cost Analyst	45.90	3	3	3	2	2	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	1.5	1.5	1	1	1	1
Administration	Administrative Mgr.	26.90	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.7	0.7
Administration	Executive Administrator	25.20	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	0.5	0.5	0.5	0.5
Administration	Department Administrator	38.60	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	1.5	1.5	1.5	1	1	1	1	1	1	1	1
Project Management	Tech/Program Support Rep.	26.60	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.7	0.5	0.5
Information Management	Information Records Rep.	12.00	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Project Management	Program Mgr.	29.20	2	2	2	2	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	0.5	0.5
Project Management	Tech/Program Support Rep.	24.00	1	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
Environmental	Environmental Protection 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	0
Environmental	Environmental Protection Rep.	20.00	5	5	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sheet Totals:		527.80	28.00	28.00	28.00	27.00	20.00	18.50	18.50	18.50	18.50	18.50	18.50	18.50	16.50	16.50	16.50	16.50	15.00	15.00	15.00	15.00	12.20	11.60	11.20	11.20

Manpower Planning Sheet (CR2)

MPS # 1AA01 FACILITY AND PROJECT SUPPORT MANAGEMEN

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																		
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							
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																				
Administration	Clerks		1	1	1	1	0.7	0.7	0.5	0.5	0.5	0.5	0.2	0.2	0	0	0	0	0	0	0	0
Craft Labor	Millwright		1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0
Craft Labor	Electrician		1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0
Craft Labor	Painter		1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0
Transportation Labor	Heavy Equipment Operator		1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0
Maintenance	Project Support 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.		0.5	0.5	0.5	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Controls	Project Controls Mgr.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Controls	Scheduler		0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0	0	0	0	0	0	0	0
Project Controls	Cost Analyst		1	1	1	1	0.5	0.5	0.3	0.3	0.2	0.2	0.2	0.2	0	0	0	0	0	0	0	0
Administration	Administrative Mgr.		0.5	0.5	0.5	0.5	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0	0	0	0	0	0	0	0
Administration	Executive Administrator		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.3	0	0	0	0	0	0	0	0
Administration	Department Administrator		1	1	0.7	0.7	0.7	0.7	0.5	0.5	0.2	0.2	0.2	0.2	0	0	0	0	0	0	0	0
Project Management	Tech/Program Support Rep.		0.5	0.5	0.5	0.5	0.5	0.5	0.2	0.2	0.2	0.2	0.2	0.2	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
Project Management	Program Mgr.		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.3	0	0	0	0	0	0	0	0
Project Management	Tech/Program 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
Environmental	Environmental Protection Mgr.		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
		Sheet Totals:	10.50	10.50	10.20	10.20	8.00	8.00	7.00	6.90	6.10	6.10	5.80	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

SECTION 1

3.0 ESTIMATE

AMGT1

PROJECT MANAGEMENT & ADMINISTRATION

09/07/2001
12:08 PM

PBS: 01
WBS: 1.1.A.A
CTRL ACCT: AMGT
CHARGE NO: AMGT1
COMMENT NO: FO1-031

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
**** STATED IN FY01 DOLLARS ****
(1 FTE EQUALS 1747 HOURS)

DATE: 13 MAY 2001
PROJECT MGR: R. NICHOLS
CAM: R. NICHOLS
PREPARED BY: L. HAMPSHIRE
ALL FISCAL YEARS

Resource: ADMMGR **ADMINISTRATIVE MGR** **EOC:** LABOR
Res Dept: **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	1,341.1	873.5	435.2	349.4	0.0
Cum Hours:	1,452.0	3,199.0	4,946.0	6,693.0	8,440.0	9,781.1	10,654.6	11,089.8	11,439.2	11,439.2
Yr Total Cost:	73,123	92,605	98,087	103,870	110,028	90,240	63,718	33,461	29,853	0
Cum Total Cost:	73,123	165,728	263,815	367,685	477,713	567,953	631,671	665,132	694,985	694,985

Resource: CLERKS **CLERKS** **EOC:** LABOR
Res Dept: **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	3,494.0	3,494.0	3,494.0	3,494.0	2,904.5	1,747.0	1,045.1	608.6	0.0
Cum Hours:	2,904.0	6,398.0	9,892.0	13,386.0	16,880.0	19,784.5	21,531.5	22,576.6	23,185.2	23,185.2
Yr Total Cost:	69,377	87,861	93,062	98,549	104,391	92,713	60,454	38,118	24,668	0
Cum Total Cost:	69,377	157,237	250,299	348,848	453,239	545,952	606,406	644,524	669,192	669,192

Resource: CSTANL **COST ANALYST** **EOC:** LABOR
Res Dept: **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:	3,915.0	2,831.0	2,620.5	2,620.5	2,620.5	1,747.0	1,747.0	695.7	349.4	0.0
Cum Hours:	3,915.0	6,746.0	9,366.5	11,987.0	14,607.5	16,354.5	18,101.5	18,797.2	19,146.6	19,146.6
Yr Total Cost:	152,294	115,916	113,649	120,350	127,484	90,802	98,437	41,317	23,060	0
Cum Total Cost:	152,294	268,210	381,859	502,209	629,694	720,496	818,932	860,250	883,309	883,309

Resource: DEPADM **DEPT ADMINISTRATOR** **EOC:** LABOR
Res Dept: **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

INCLUDES ESCALATION COSTS

Yr Hours:	2,178.0	2,620.5	2,620.5	2,620.5	1,747.0	1,747.0	1,471.6	1,045.1	349.4	0.0
Cum Hours:	2,178.0	4,798.5	7,419.0	10,039.5	11,786.5	13,533.5	15,005.1	16,050.2	16,399.6	16,399.6
Yr Total Cost:	69,064	87,465	92,643	98,105	69,281	74,019	67,593	50,596	18,798	0
Cum Total Cost:	69,064	156,530	249,173	347,278	416,559	490,578	558,171	608,766	627,564	627,564

Resource: ELECTN **ELECTRICIAN** **EOC:** LABOR
Res Dept: **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	1,747.0	1,747.0	1,747.0	1,747.0	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	13,681.0	15,428.0	15,428.0
Yr Total Cost:	45,506	57,630	61,041	64,640	68,472	73,155	79,306	83,589	92,891	0
Cum Total Cost:	45,506	103,135	164,177	228,817	297,290	370,445	449,751	533,340	626,232	626,232

Resource: ENPMGR **ENVIR PROTECTION MGR** **EOC:** LABOR
Res Dept: **Overtime:** FY01 **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:	91,549	0	0	0	0	0	0	0	0	0
Cum Total Cost:	91,549	91,549	91,549	91,549	91,549	91,549	91,549	91,549	91,549	91,549

Resource: ENPREP **ENVIR PROTECTION REP** **EOC:** LABOR
Res Dept: **Overtime:** FY01 **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:	7,260.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	7,260.0	7,260.0	7,260.0	7,260.0	7,260.0	7,260.0	7,260.0	7,260.0	7,260.0	7,260.0
Yr Total Cost:	350,948	0	0	0	0	0	0	0	0	0
Cum Total Cost:	350,948	350,948	350,948	350,948	350,948	350,948	350,948	350,948	350,948	350,948

Resource: EXEADM **EXEC ADMINSTRATOR** **EOC:** LABOR
Res Dept: **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	873.5	873.5	873.5	873.5	524.1	0.0
Cum Hours:	1,452.0	3,199.0	4,946.0	6,693.0	7,566.5	8,440.0	9,313.5	10,187.0	10,711.1	10,711.1
Yr Total Cost:	45,927	58,163	61,606	65,239	34,553	36,916	40,020	42,181	28,125	0
Cum Total Cost:	45,927	104,090	165,696	230,935	265,488	302,404	342,424	384,605	412,730	412,730

Resource: HEOOPR **HEAVY EQUIP OPERATOR** **EOC:** LABOR
Res Dept: **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	1,747.0	1,747.0	1,747.0	1,747.0	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	13,681.0	15,428.0	15,428.0
Yr Total Cost:	45,680	57,850	61,275	64,888	68,735	73,435	79,610	83,909	93,247	0
Cum Total Cost:	45,680	103,530	164,806	229,694	298,428	371,863	451,473	535,383	628,630	628,630

Resource: INRREP **INFO RECORDS REP** **EOC:** LABOR
Res Dept: **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	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,452.0	3,199.0	4,946.0	4,946.0	4,946.0	4,946.0	4,946.0	4,946.0	4,946.0	4,946.0
Yr Total Cost:	43,095	54,577	57,808	0	0	0	0	0	0	0
Cum Total Cost:	43,095	97,673	155,481	155,481	155,481	155,481	155,481	155,481	155,481	155,481

Resource: MAT300 **MATERIAL OBJCLASS300** **EOC:** MATERIAL
Res Dept: 950 **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:	13,711.0	11,636.0	10,788.0	9,801.0	8,910.0	6,861.0	6,148.0	4,441.0	3,337.0	0.0
Cum Units:	13,711.0	25,347.0	36,135.0	45,936.0	54,846.0	61,707.0	67,855.0	72,296.0	75,633.0	75,633.0
Yr Total Cost:	13,711	11,950	11,378	10,627	9,931	7,869	7,256	5,393	4,170	0
Cum Total Cost:	13,711	25,661	37,040	47,666	57,598	65,467	72,723	78,116	82,286	82,286

Resource: MILWRT **MILLWRIGHT** **EOC:** LABOR
Res Dept: **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	1,747.0	1,747.0	1,747.0	1,747.0	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	13,681.0	15,428.0	15,428.0
Yr Total Cost:	45,375	57,464	60,866	64,455	68,276	72,945	79,078	83,349	92,624	0
Cum Total Cost:	45,375	102,839	163,705	228,160	296,436	369,381	448,459	531,809	624,433	624,433

Resource: ODC700 **ODC 700** **EOC:** ODC
Res Dept: 950 **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:	5,563.0	29,721.0	29,377.0	28,977.0	28,615.0	2,784.0	2,494.0	1,802.0	1,434.0	0.0
Cum Units:	5,563.0	35,284.0	64,661.0	93,638.0	122,253.0	125,037.0	127,531.0	129,333.0	130,767.0	130,767.0
Yr Total Cost:	5,563	30,524	30,985	31,419	31,895	3,193	2,943	2,188	1,792	0
Cum Total Cost:	5,563	36,087	67,071	98,490	130,385	133,578	136,521	138,710	140,502	140,502

Resource: ODCTRVL **TRAVEL RESOURCE** **EOC:** ODC
Res Dept: 950 **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:	10,642.0	9,030.6	8,372.4	7,606.0	6,915.0	5,325.0	4,771.0	3,446.0	2,743.0	0.0
Cum Units:	10,642.0	19,672.6	28,045.0	35,651.0	42,566.0	47,891.0	52,662.0	56,108.0	58,851.0	58,851.0
Yr Total Cost:	10,642	9,274	8,831	8,247	7,708	6,107	5,631	4,185	3,428	0
Cum Total Cost:	10,642	19,916	28,747	36,994	44,702	50,809	56,440	60,625	64,053	64,053

Resource: PAINTR **PAINTER** **EOC:** LABOR
Res Dept: **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	1,747.0	1,747.0	1,747.0	1,747.0	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	13,681.0	15,428.0	15,428.0
Yr Total Cost:	45,680	57,850	61,275	64,888	68,735	73,435	79,610	83,909	93,247	0
Cum Total Cost:	45,680	103,530	164,806	229,694	298,428	371,863	451,473	535,383	628,630	628,630

Resource: PJCMGR **PROJECT CONTROLS MGR** **EOC:** LABOR
Res Dept: **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	0.0	0.0	0.0	0.0	0.0
Cum Hours:	726.0	1,599.5	2,473.0	3,346.5	4,220.0	4,220.0	4,220.0	4,220.0	4,220.0	4,220.0
Yr Total Cost:	47,502	60,158	63,720	67,476	71,476	0	0	0	0	0
Cum Total Cost:	47,502	107,660	171,380	238,856	310,333	310,333	310,333	310,333	310,333	310,333

Resource: PJCSCH **SCHEDULERS** **EOC:** LABOR
Res Dept: **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	2,168.0	1,747.0	1,747.0	1,747.0	873.5	873.5	480.0	349.4	0.0
Cum Hours:	2,904.0	5,072.0	6,819.0	8,566.0	10,313.0	11,186.5	12,060.0	12,540.0	12,889.4	12,889.4
Yr Total Cost:	153,564	120,672	102,995	109,068	115,533	61,717	66,907	38,752	31,347	0
Cum Total Cost:	153,564	274,235	377,231	486,299	601,832	663,549	730,456	769,208	800,555	800,555

Resource: PJSREP **PROJECT SUPPORT REP** **EOC:** LABOR
Res Dept: **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	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,452.0	3,199.0	4,946.0	4,946.0	4,946.0	4,946.0	4,946.0	4,946.0	4,946.0	4,946.0
Yr Total Cost:	59,198	74,970	79,408	0	0	0	0	0	0	0
Cum Total Cost:	59,198	134,168	213,577	213,577	213,577	213,577	213,577	213,577	213,577	213,577

Resource: PRJMGR **PROJECT MANAGER** **EOC:** LABOR
Res Dept: **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	873.5	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	10,187.0	10,187.0	10,187.0	10,187.0
Yr Total Cost:	129,460	163,953	173,659	183,897	194,799	104,061	112,810	0	0	0
Cum Total Cost:	129,460	293,413	467,071	650,969	845,768	949,828	1,062,638	1,062,638	1,062,638	1,062,638

Resource: PROMGR **PROGRAM MGR** **EOC:** LABOR
Res Dept: **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	873.5	873.5	873.5	524.1	0.0
Cum Hours:	2,904.0	4,651.0	6,398.0	8,145.0	9,018.5	9,892.0	10,765.5	11,639.0	12,163.1	12,163.1
Yr Total Cost:	273,005	172,871	183,105	193,901	102,698	109,721	118,946	125,371	83,593	0
Cum Total Cost:	273,005	445,876	628,981	822,882	925,579	1,035,300	1,154,247	1,279,618	1,363,211	1,363,211

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

	Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-

09/07/2001
12:08 PM

	Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10
Yr Hours:	2,904.0	3,494.0	3,494.0	3,494.0	3,494.0	1,912.8	1,747.0	606.8	349.4	0.0
Cum Hours:	2,904.0	6,398.0	9,892.0	13,386.0	16,880.0	18,792.8	20,539.8	21,146.6	21,496.0	21,496.0
Yr Total Cost:	150,892	191,094	202,407	214,341	227,047	132,798	131,485	48,136	30,802	0
Cum Total Cost:	150,892	341,986	544,393	758,733	985,780	1,118,578	1,250,064	1,298,200	1,329,002	1,329,002

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:	40,215.0	32,951.0	32,319.5	28,825.5	26,205.0	20,134.4	18,068.1	13,042.9	10,391.8	0.0
Cum Hours:	40,215.0	73,166.0	105,485.5	134,311.0	160,516.0	180,650.4	198,718.5	211,761.4	222,153.2	222,153.2
Yr Total Cost:	1,921,154	1,562,848	1,617,801	1,563,960	1,481,041	1,103,128	1,093,804	764,456	651,645	0
Cum Total Cost:	1,921,154	3,484,002	5,101,804	6,665,764	8,146,805	9,249,933	10,343,736	11,108,193	11,759,838	11,759,838

CAM R Nichols CONTROL TEAM Rodney Whitaker

INCLUDES ESCALATION COSTS

SECTION 1

4.0 RISK PLAN

Risk/Opportunity Identification and Analysis Form

Project: Facility Project Support		PBS Number: 01			Total Baseline Cost (Minimum Case):			$11,759,838		
Evaluator: Robert Hammac Date: 4/30/01		WBS Number: 1.1.A.A								
CAM: Bob Nichols Date: 4/30/01		Control Account Number: AMGT								
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
Divisional Support & Integration	Project driven divisional support needs increse	need to increase manpower for short durations	Internal	$1,680,000	3	30	3	$504,000	34	Reduce/Mitigate
			Total:	$1,680,000			Total:	$504,000		

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	5

5. WBS ELEMENT CODE	6. WBS ELEMENT TITLE
1.1.A.B	INFRASTRUCTURE SERVICES

7. APPROVED CP NO.	8. DATE OF CHANGES
NEW PER CP# FY0115-0001-00	12/01/2000

9. SYSTEM DESIGN DESCRIPTION	10. BUDGET AND REPORTING NUMBER
CERCLA/ACA	EW05H3010

11. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Subcontracts
Materials
ODCs

b. TECHNICAL CONTENT:

The Infrastructure Services element includes the following components:

Property
Transportation
Maintenance
Porters/Laundry
Facility Support
Labor Hour Support and Planning

c. SCOPE OF WORK:

Infrastructure Services element provides continuity of site infrastructure in the areas of property, transportation, maintenance, porters and laundry, facility support, and labor hour support and planning.

Property is responsible for the management of personal and real property.

Transportation activities covered by this element include vehicle and equipment administration, maintenance and repair of vehicles and equipment, transportation deliveries, and heavy equipment support.

Maintenance provides the activities relating to maintaining utilities and structural components of facilities.

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	5

5. WBS ELEMENT CODE	6. WBS ELEMENT TITLE
1.1.A.B	INFRASTRUCTURE SERVICES

7. APPROVED CP NO.	8. DATE OF CHANGES
NEW PER CP# FY0115-0001-00	12/01/2000

9. SYSTEM DESIGN DESCRIPTION	10. BUDGET AND REPORTING NUMBER
CERCLA/ACA	EW05H3010

11. ELEMENT TASK DESCRIPTION

Porters/Laundry includes general housekeeping services as well as the issuance and distribution of clean personal protective clothing and respirators.

Facility Support provides comprehensive site support operations including management support, facility engineering, facility ownership, utilities, and space management functions.

Labor Hour Support and Planning provides for the Labor Hour Contractor office staff, core crew, support shops, building trades, craft training, and small miscellaneous tools and equipment. This element also provides for the management of the Labor Hour Contract and associated planning activities.

WORK SCOPE DEFINITION
(Control Account)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	05/01/2001	Page 1

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.A.B	INFRASTRUCTURE SERVICES	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L HAMPHIRE	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW PER CP# FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ONE LINE)	
ASVC	INFRACTRUCTURE SERVICES	

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Subcontracts
Materials
ODCs

b. TECHNICAL CONTENT:

The Infrastructure Services element includes the following components:

Property
Transportation
Maintenance
Porters/Laundry
Facility Support
Labor Hour Support and Planning

c. SCOPE OF WORK:

Infrastructure Services element provides continuity of site infrastructure in the areas of property, transportation, maintenance, porters and laundry, facility support, and labor hour support and planning.

Property is responsible for the management of personal and real property.

Transportation activities covered by this element include vehicle and equipment administration, maintenance and repair of vehicles and equipment, transportation deliveries, and heavy equipment support.

Project Manager	Control Account Manager	Control Team Manager
L C Hamphire	R Nichols	Rodney Whitaker

WORK SCOPE DEFINITION
(Control Account)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	05/01/2001	Page 2

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.A.B	INFRASTRUCTURE SERVICES	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L HAMPHIRE	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW PER CP# FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ONE LINE)	
ASVC	INFRACTRUCTURE SERVICES	

14. ELEMENT TASK DESCRIPTION

Maintenance provides the activities relating to maintaining utilities and structural components of facilities.

Porters/Laundry includes general housekeeping services as well as the issuance and distribution of clean personal protective clothing and respirators.

Facility Support provides comprehensive site support operations including management support, facility engineering, facility ownership, utilities, and space management functions.

Labor Hour Support and Planning provides for the Labor Hour Contractor office staff, core crew, support shops, building trades, craft training, and small miscellaneous tools and equipment. This element also provides for the management of the Labor Hour Contract and associated planning activities.

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.A.B	INFRASTRUCTURE SERVICES	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
ASVC1	PROPERTY	

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Subcontractors
Materials
OCD's

b. TECHNICAL CONTENT:

- Property Management is responsible for the personal and real property management program. Property Management will provide management support for RIMIA, Stores, Sub Stores, Property Control, and Property Disposition functions. Property management will perform Stores, Sub Stores, RIMIA, Warehouse, and Property Control, Accountability, and Compliance functions.

c. SCOPE OF WORK:

Property Management will provide management support for RIMIA, Stores, Sub-Stores, Property Control, and Property Disposition, as follows:

- Primary contact to DOE-FN and DOE-OH for real and personal property issues.
- Ensure compliance with shipping, property management, and acquisition regulatory requirements for real and personal property.
- Identify manpower and sub store location needs for the entire site.
- Install telephone service in T-33 in FY01.
- Prepare the following Departmental required reports:
- Balanced Scorecard (BSC)
- Precious Metals Inventory
- Excess Personal Property Furnished to Non Federal Recipients
- Negotiated Sales Report

Project Manager	Control Account Manager	Control Team Manager
L. Hampshire	R. Nichols	Rodney Whitaker

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.A.B	INFRASTRUCTURE SERVICES	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
ASVC1	PROPERTY	

14. ELEMENT TASK DESCRIPTION

- Quarterly Sales Report
- Physical Inventory Report
- Sensitive Property Inventory Report
- Stores Inventory and Report
- Walkthrough Inspection and Report
- Termination Inventory
- Weekly Activity Report
- Monthly Project Update

Property Control, Accountability, and Compliance element provide the following activities:

- Identify and provide control over government personal property and bar code applicable sensitive items.
- Schedule and supervise the performance of physical inventories as follows: movable capital equipment (bi-annually), sensitive items (annually), stores inventory (annually), precious metals (annually), real property (every ten years), and termination inventory.
- Maintain the Property Tracking System (PTS).
- Maintain government real property records (FIMS).
- Provide an inventory of the total acquisition cost of government property in the possession of Fluor Fernald and its subcontractors.
- Administer the Property Pass, Loss and Damaged Personal Property, Equipment held for Future Projects, and Property Loan Programs.
- Monitor regulatory documents for pertinent changes.
- Monitor current off site vendors using Government Furnished Property acquired for or from the FEMP.
- Assist projects in the development of Project Property Reports, and input the resulting data into the FIMS and PTS.
- Process and obtain approvals for the D&D of Real Property from General Services Administration, Housing and Urban Development, and DOE as required.
- Provide license agreements and rights-of-entry to private land for installation of wells, investigations, monitoring, and soil/water sampling.

Stores, Sub-Stores, RIMIA, and Warehouse element provide the following

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.A.B	INFRASTRUCTURE SERVICES	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
ASVC1	PROPERTY	

14. ELEMENT TASK DESCRIPTION

activities:

- Receive materials from vendors, verify compliance with purchase agreements, designate the delivery location for the materials, and issue materials out of stores.
- Purchase materials to maintain the required minimum and maximum in the stores inventory.
- Administer a clearing account for inventory write-offs for the FEMP.
- Provide inventory control and storage for office furniture and excess personal property.
- Provide Rad Tech support for Property Management including rad survey materials coming into and out of RIMIA and excess personal property leaving the controlled area of the FEMP.
- Collect, store, ship, receive, and issue cartridges for the site toner cartridge-recycling program.
- Perform QA inspections for incoming materials and supplies.
- Provide Professional Storeroom Attendants to Waste Generator Services (WGS) for shipping functions.
- Supply sub-stores manpower.

Property Disposition element provide the following activities:

- Review the reutilization database and the Energy Asset Disposal System (EADS) for acquisitions of personal property.
- Maintain a retirement work order process to account for property that is worn out, lost, stolen, destroyed, abandoned, or damaged beyond economical repair.
- Sanitize excess Automatic Data Processing Equipment (ADPE) if possible or provide for safe disposition of items that cannot be sanitized.
- Administer the site High Risk Property Program, transfer, gift, donation programs, and sales of surplus property.
- Coordinate manpower, and resources, for the relocation of property for the purpose of disposition, Maintenance coordinates activities associated with relocation.

d. WORK SPECIFICALLY EXCLUDED:

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.A.B	INFRASTRUCTURE SERVICES	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
ASVC1	PROPERTY	

14. ELEMENT TASK DESCRIPTION

- The stores holding accounts.
- Labor, supplies, and materials to support WPRAP/IT sub stores.
- The disposition of waste, equipment, materials, and supplies.
- Transportation to support the Property Management functions.
- Removing excess equipment, materials, and supplies from facilities.
- The maintenance and relocation of facilities.
- Receiving and distribution of supplies, materials, and equipment for sub contractors.
- Packaging and labeling of off-site shipments.
- The use of this charge number to support a Project Labor Pool beyond the identified scope and associated manpower to complete the scope.
- Computer purchases and upgrades.
- Fluor Fernald General and Administrative Budget.

SECTION 1

1.0 NARRATIVE

1. PROJECT TITLE: FACILITY AND PROJECT SUPPORT	2. DATE: 09/10/01	3. PBS#: 01
4. WBS ELEMENT CODE: 1.1.A.B.	5. WBS ELEMENT TITLE: INFRASTRUCTURE SERVICES	
6. CAM NAME/ PHONE: ROBERT HAMMACK	7. CAM SIGNATURE:	
8. ORIGINAL/ CHANGE SCOPE/ PER CP#:	9.CONTROL ACCOUNT: ASVC	

PART 2: ASVC – INFRASTRUCTURE SERVICES
Section 1: ASVC1 – Property Management

1.0 NARRATIVE

1.1 OVERVIEW

Property Management is responsible for the personal and real property management program. Property Management will provide management support for RIMIA, Stores, Sub Stores, Property Control and Property Disposition functions. Property management will perform Stores, Sub Stores, RIMIA, Warehouse, and Property Control, Accountability, and Compliance functions.

1.2 ASSUMPTIONS/EXCLUSIONS

1.2.1 Assumptions

- The receiving incoming materials and inspection area (RIMIA) function will remain located at Building 82A through September FY05.
- The RIMIA function will be relocated into a shared existing facility FY05 to FY10.
- RIMIA and Stores function cease at the end of FY10.

R1-F01-021

- Central Stores remain at the North Star facility ~~from FY01~~ through November 2001~~FY014~~, and will be relocated to the site at that time.
- Property Management function will continue through closure.
- All Property Management functions and personnel will relocate to site by FY02.
- Use GSA Advantage Card for purchasing stock and use P-Card for specialized items by FY03
- All sub stores estimates are for one shift and 40 hours a week.

- The basis of this estimate assumes the use of Remediation Schedule, "Execution 6 Scenario."
- The "Graded Approach" philosophy will be utilized for the duration of the contract to determine the depth of detail and magnitude of resources expended for this work scope.

- This charge number will only pay for training associated with General Site Worker Qualification and specific training as spelled out in TQP # 031.

R1-F01-021

- ~~The manager of this charge number will be able to utilize and implement all sections of the Collective Bargaining Agreements that are established with Fernald Atomics Trades and Labor Council and the Greater Cincinnati Building and Trades Council.~~

R1-D-035

- Manpower calculations are based on the following four possible sources: Historical Data (HD), Industry Standard (IS), Composite of HD & IS (Comp), and Professional Judgement (PJ). See Calculation Table ~~in~~ following Section ~~V~~ 1.4.4 for calculations by work scope activity/sub activity.

R1-F01-002

- Other Direct Costs (ODCs) are based on FY00 actual cost of work performed and budgeted manpower (FTEs). ~~, as follows: ODC$s/FTEs. Minimum of $100/FTE will be used if FY00 calculations are < $100/FTE.~~ See Section 1.4.1 for quotient, by work scope function.

R1-D-048

- ~~Premium~~ Overtime is based on FY00 actual cost of work performed overtime hours (OT) and regular (Reg) hours, as follows: OT/Reg. See Section 1.4.1 for quotient, by work scope function.

- Material rates are broken down into two parts: 1-General Materials and 2-Additional Materials. General Materials are based on data supplied by Estimating Services. ~~Additional Materials are based on FY00 ACWP data. See section 1.4 for materials rates.~~

- Subcontractor dollars are based on existing subcontracts at time of this baseline and anticipated new subcontracts not currently in place.

R1-F01-001

- Dollar amounts are unescalated

- All calculations for manpower, subcontracts, materials, and ODCs are based on a 12-month year for 2002, 2003, 2004, 2005, 2006, 2007, 2008, and 2009

- All overtime is planned overtime

- Assume that all work activities are based on a 40-hour workweek

- The basis of this estimate assumes the use of Remediation Schedule, and Execution 6 Scenario
- Sales Tax @ 6% for all taxable items
- Estimate is expressed in FY01 dollars
- Estimate represents budget for the length of this charge number

1.2.2 Exclusions

- The stores holding account.
- Labor and supplies to support WPRAP/IT sub stores.
- The disposition cost of waste; equipment, materials, and supplies.
- Transportation cost to support the Property Management functions.
- Cost of removing excess equipment, materials, and supplies from facilities.
- The Real Property listed in attachment 1 and the personal property assigned to the real property will require no further action.
- The maintenance and relocation cost of facilities.
- Receiving and distribution of supplies, materials and equipment for sub contractors.
- Packaging and labeling of off site shipments.
- The use of this charge number to support a Project Labor Pool beyond the identified scope and associated manpower to complete the scope.

R1-F01-001

- Computer purchases and upgrades
- Does not include Fluor Fernald General Administrative Cost

1.2.3 Government-Furnished Equipment/Services

None

1.3 DRIVERS

Administrative Drivers:

- Closure Contract DE AC24-01OH20115
- 41 CFR 101 & 109, Management of Personal and Real Property
- FAR 45.5, Federal Acquisitions Regulations
- DEAR 945.5, DOE Acquisitions Regulations
- DOE PMR 109-27.53, Management of Precious Metals
- Executive Order 12999, 4/17/1996, equipment to support math and learning
- Stevenson-Wydler Technology Innovation Act, 1992 Amendment
- DOE Order 430.1A, Life Cycle Asset Management
- DOE Order 2200.10A Account Codes and Illustrative Entries
- DOE Order 2200.6A, Financial Accounting
- DOE Order 4300.1C, Real Property Management

Drivers Physical:

- OU1 Complex D&D
- Plant 6/East Ware house D&D
- Plant 1 Phase II D&D
- Admin Complex D&D
- Electrical Station D&D
- Silos 1-4, Superstructure, and RTS D&D
- OU3 other D&D
- Plant 5 D&D
- Maintenance Tank Farm D&D
- Multi Complex D&D
- Lab/Pilot Plant D&D
- Stand Alone D&D Components
- Mixed Waste Projects
- Low Level Waste Projects
- OSDF Project
- Aquifer/AWWT Project
- Environmental Monitoring
- ARASA Operations
- WPRAP Project Management
- Natural Resources Restoration
- Soil Remediation
- Stock Piles
- Silos Projects
- Waste Management

1.4 SCOPE OF WORK

1.4.1 Property Management

1.4.1)1 Plan/Scope

Property Management will provide management support for RIMIA, Stores, Sub Stores, Property Control, and Property Disposition, as follows:

- Primary contact to DOE-FN and DOE-OH for real and personal property issues.
- Ensure compliance with shipping, property management, and acquisition regulatory requirements for real and personal property.
- Provide management/supervision for the workforce.
- Review and approve time sheets.
- Prepare required departmental reports.
- Identify manpower and sub store location needs for the entire site.

R1-D01-042

- Install Telephone Service in T-33 in FY01
- Prepare the following Departmental required reports (see table below):

Title	Driver	Frequency
Balanced Scorecard (BSC)	Closure Contract	Annual
Precious Metals Inventory	DOE PMR 109-25.5104-4	Annual
Excess Personal Property Furnished to Non Federal Recipients	41 CFR 101-43.4701 and DOE PMR 109-43.4701 (c)	Annual
Negotiated Sales Report	41 CFR 101-43.4702 and DOE PMR 109-45-4702	Annual
Quarterly Sales Report	Closure Contract	Quarterly
Physical Inventory Report	DOE PMR 109-1.5110 (f)(1)	Biennial
Sensitive Property Inventory Report	DOE PMR 109-1.5110 (f)(2)	Annual
Stores Inventory and Report	DOE PMR 109-1.5110 (f)(3)	Annual
Walkthrough Inspection and Report	41 CFR 101-25.109-1 and 41 CFR 109-25.109-1(a)	Annual
Termination Inventory	FAR sub-part 45.508	End of the Closure Contract
Weekly Activity Report	Fluor Fernald Management	Weekly
Monthly Project Update	Fluor Fernald Management	Monthly

R1-D-048

1.4.1)2 Quantification/~~Premium~~ Overtime

(See Quantification Table)

~~Old 6EAAN related = .0047~~
~~Old 6EAAP related = .0004~~
~~Average: .0026~~ No Planned Overtime

1.4.1)3 ODCs

Based on actuals of charge #'s 6EAAN, 6EAAP

R1-F01-022

ODC 600 - None
ODC 700 - $5~~69~~/FTE
ODC Travel - $56/FTE

1.4.1)4 Subcontracts/Material

Subcontracts:

Cinti Bell Tele FY01 $19,000 NONE IN OUTYEARS
Hilton Auctioneers FY01 $00

Materials:

General Material $594/FTE

Additional Materials:

Materials/FTE	NONE
Materials/Year	NONE

1.4.2 Property Control

1.4.2)1 Plan/Scope

Property Control, Accountability, and Compliance element provide the following activities:

- Identify and provide control over government personal property and bar code applicable sensitive items.
- Schedule and supervise the performance of physical inventories as follows: 1) movable capitol equipment – bi-annually, 2) sensitive items – annually, 3) stores inventory – annually, 4) precious metals – annually, 5) real property – every ten years, and termination inventory (see activity 1.3.6 for list of required reports).
- Maintain the Property Tracking System (PTS).

- Maintain government real property records (FIMS).
- Provide an inventory of the total acquisition cost of government property in the possession of Fluor Fernald and its subcontractors.
- Administer the Property Pass, Loss and Damaged Personal Property, Equipment Held for Future Projects, and Property Loan Programs.
- Monitor regulatory documents for pertinent changes.
- Monitor current off site vendors using Government Furnished Property acquired for or from the FEMP.
- Assist projects in the development of Project Property Reports, and input the resulting data into the FIMS and PTS.
- Process and obtain approvals for the D&D of Real Property from General Services Administration, Housing and Urban Development, and DOE as required.
- Provide license agreements and rights-of-entry to private land for installation of wells, investigations, monitoring, and soil/water sampling.

R1-D-048

1.4.2)2 Quantification/~~Premium~~ Overtime

(See Quantification Table)

~~Old 6EAAP related = .0004~~ No Planned Overtime

1.4.2)3 ODCs

Based on actuals of charge #'s 6EAAP

R1-F01-022

ODC 600 - None
ODC 700 - $5~~6~~9/FTE
ODC Travel - $56/FTE

1.4.2)4 Subcontracts/Materials

Subcontracts:

None

Materials:

General Material $594/FTE

Materials:

Additional Materials:
Materials/FTE NONE
Materials/Year NONE

1.4.3 RIMIA/Stores

1.4.3)1 Plan/Scope

Stores, Sub Stores, RIMIA, and Warehouse element provide the following activities:

- Receive materials from vendors, verify compliance with purchase agreements, designate the delivery location for the materials, and issue materials out of stores.
- Purchase materials to maintain the required minimum and maximum in the stores inventory.
- Administer a clearing account for inventory write-offs for the FEMP.
- Provide inventory control and storage for office furniture and excess personal property.
- Rad Tech support for Property Management including rad survey materials coming into and out of RIMIA and excess personal property leaving the controlled area of the FEMP.
- Collect, store, ship, receive, and issue cartridges for the site toner cartridge-recycling program.
- Perform QA inspections for incoming materials and supplies.
- Provide Professional Storeroom Attendants to Waste Generator Services (WGS) for shipping functions.
- Supply sub-stores manpower.

R1-D-048

1.4.3)2 Quantification/~~Premium~~ Overtime

(See Quantification Table)

~~Old 6EAAN related = .0047~~ No Planned Overtime

1.4.3)3 ODCs

Based on actuals of charge #'s 6EAAN

ODC 600 - None
ODC 700 - $5~~6~~9/FTE
ODC Travel - $56/FTE

R1-F01-022

1.4.3)4 Subcontracts/Materials

Subcontracts: NONE

Materials:

General Material $594/FTE

Additional Material

Materials/FTE NONE
Materials/Year NONE

1.4.4 Property Disposition

1.4.4)1 Plan/Scope

The Property Disposition element provide the following activities:

- Review the reutilization database and the Energy Asset Disposal System (EADS) for acquisitions of personal property.
- Maintain a retirement work order process to account for property that is worn out, lost, stolen, destroyed, abandoned, or damaged beyond economical repair.
- Sanitize excess Automatic Data Processing Equipment (ADPE) if possible or provide for safe disposition of items that cannot be sanitized.
- Administer the site High Risk Property Program, transfer, gift, donation programs, and sales of surplus property.

R1-F01-023

- Coordinate manpower, and resources, for the relocation of property~~.~~ For the purpose of disposition, Maintenance coordinates activities associated with relocation.

R1-D-048

1.4.4)2 Quantification/~~Premium~~ Overtime

(See Quantification Table)

~~Old 3CNC1 related = .0016~~ No Planned Overtime

1.4.4)3 ODCs

Based on actuals of charge #'s 3CNC1

R1-F01-022

ODC 600 - None
ODC 700 - $5~~6~~9/FTE
ODC Travel - $56/FTE

1.4.4)4 Subcontracts/Materials

Subcontracts: NONE

Materials:

General Material $594/FTE

Additional Materials:
Materials/FTE NONE
Materials/Year NONE

Property Quantification Table Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)			
Activity	**Sub-Activity**	**Calc Type**	**Calculations**
1.4.1)2 Property Management			
Property Management will provide management support for RIMIA, Stores, Sub Stores, Property Control and Property Disposition.	Primary contact to DOE-FN and DOE-OH for real and personal property issues.	HD & PJ	Mgr .5, Supv .3 FTEs
	Ensure compliance with shipping, property management, and acquisition regulatory requirements for real and personal property.	HD & PJ	Supv .7 FTEs
	Provide management/supervision for the workforce.	HD & PJ	Mgr .25, Supv .6 FTEs
	Review and approve time sheets.	HD & PJ	Mgr .05, Supv .15 FTEs
	Prepare required departmental reports.	HD & PJ	Mgr .15, Supv .7 FTEs
	Identify manpower and sub store location needs for the entire site.	HD & PJ	Mgr .05, Supv .05 FTEs
1.4.2)2 Property Control			
The Property Control, Accountability, and Compliance element provide the following activities:	Identify and provide control over government personal property and bar code applicable sensitive items.	HD & PJ	PCREP .25 FTEs
	Schedule and supervise the performance of physical inventories as follows: 1) movable capital equipment – bi-annually, 2) sensitive items – annually, 3) stores inventory – annually, 4) precious metals – annually, 5) real property – every ten years, and termination inventory [see activity 1.4.1)1 in work scope for list of required reports].	HD & PJ	PCREP 1.7, Clerk .5 FTEs
	Maintain the Property Tracking System (PTS).	HD & PJ	PCREP 1.7, Clerk .5 FTEs
	Maintain government real property records (FIMS).	HD & PJ	Supv .05 FTEs
	Provide an inventory of the total acquisition cost of government property in the possession of Fluor Fernald and its subcontractors.	HD & PJ	PCREP .1 FTEs
	Administer the Property Pass, Loss and Damaged Personal Property, Equipment Held for Future Projects, and Property Loan Programs.	HD & PJ	PCREP .1 FTEs
	Monitor regulatory documents for pertinent changes.	HD & PJ	Supv .05 FTEs
	Monitor current off site vendors using Government Furnished Property acquired for or from the FEMP.	HD & PJ	Supv .05 FTEs
	Assist projects in the development of Project Property Reports, and input the resulting data into the FIMS and PTS.	HD & PJ	PCREP .05 FTEs

Property Quantification Table Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)			
Activity	**Sub-Activity**	**Calc Type**	**Calculations**
1.4.2)2 Property Control (Continued)			
The Property Control, Accountability, and Compliance element provide the following activities: (Continued)	Process and obtain approvals for the D&D of Real Property from General Services Administration, Housing and Urban Development, and DOE as required.	HD & PJ	Supv .05 FTEs
	Provide license agreements and rights-of-entry to private land for installation of wells, investigations, monitoring, and soil/water sampling.	HD & PJ	Supv .1 FTEs
1.4.3)2 RIMIA/Stores			
Stores, Sub Stores, RIMIA, and Warehouse element provide the following activities:	Receive materials from vendors, verify compliance with purchase agreements, designate the delivery location for the materials, and issue materials out of stores.	HD & PJ	PCREP .5, Clerk 1.2, PSA 11 FTEs
	Purchase materials to maintain the required minimum and maximum in the stores inventory.	HD & PJ	Supv .5, Clerk 1, PCREP .25 FTEs
	Administer a clearing account for inventory write-offs for the FEMP.	HD & PJ	Supv .05, Clerk .5, PCREP .25 FTEs
	Provide inventory control and storage for office furniture and excess personal property.	HD & PJ	Clerk .2, PSA .5 FTEs
	Rad Tech support for Property Management to survey materials coming into and out of RIMIA and excess personal property leaving the controlled area of the FEMP.	HD & PJ	Rad 1.0 FTEs
	Collect, store, ship, receive, and issue cartridges for the site toner cartridge-recycling program.	HD & PJ	Clerk .1, PSA .5 FTEs
	Perform QA inspections for incoming materials and supplies.	HD & PJ	QA Checker 1.0 FTE
	Provide Professional Storeroom Attendants to Waste Generator Services (WGS) for shipping functions.	HD & PJ	PSA ~~4.0~~5.0 FTEs
	Supply sub-stores manpower.	HD & PJ	PSA 3.0 FTEs
1.4.4)2 Property Disposition			
The Property Disposition element provide the following activities:	Review the reutilization database and the Energy Asset Disposal System (EADS) for acquisitions of personal property.	HD & PJ	PCREP .5 FTEs
	Maintain a retirement work order process to account for property that is worn out, lost, stolen, destroyed, abandoned, or damaged beyond economical repair.	HD & PJ	

Property Quantification Table

Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity	Sub-Activity	Calc Type	Calculations
	Sanitize excess Automatic Data Processing Equipment (ADPE) if possible or provide for safe disposition of items that cannot be sanitized.	HD & PJ	
1.4.4)2 Property Disposition (Continued)			
The Property Disposition element provide the following activities: (Continued)	Administer the site High Risk Property Program, transfer, gift, donation programs, and sales of surplus property.	HD & PJ	Supv .1, PCREP 1.5, Clerk .5 FTEs
	Coordinate manpower, and resources, for the relocation of property.	HD & PJ	PCREP .5 FTEs

F01-003

R1-F01-024

R1-D-136

ATTACHMENT 1

SUMMARY OF BUILDINGS APPROVED OR REQUESTED FOR DISPOSAL

APPROVED

BLDG. NO.	CERT. FIN.	DESCRIPTION	APPROVED	PKG.
7A	X	PLANT 7	(6/21/89)	WEMCO
PKG.				
1C	X	PLANT ONE ORE SILOS	(3/14/95)	SILO'S
3F	X	HARSHAW SYSTEM	(2/14/96)	EXTERNAL CMP. 8F
	X	PLANT 8 OLD DRUMB WASHER		"
38A	X	PROPANE STORAGE		"
38B	X	CYLINDER FILLING STATION		"
45B	X	UTILITY SHED		"
18K	X	LOW NITRATE TANK	(2/21/96)	
18L	X	HIGH NITRATE TANK		
4A	X	GREEN SALT PLANT	(2/28/95)	PLT. 4 COMPLEX
4B		PLANT 4 WAREHOUSE		"
4C	X	PLANT 4 MAINTENANCE BLD.		"
13A		PILOT PLANT WET SIDE	(2/23/95)	PILOT PLT.
13B		PILOT PLANT MAINTENANCE BLD.		"
13C		SUMP PUMP HOUSE	"	
13D		PILOT PLANT THORIUM TANK FARM		"
37		PILOT PLANT ANNEX		"
54A		6 TO 4 REDUCTION FACILITY		"
54B		PILOT PLANT WAREHOUSE	"	
13A SILOS		13A SILOS		"
28F	X	SKEET RANGE BLD.		"
39D	X	SEWAGE TREATMENT PLT. INCINERATOR		"
68		PILOT PLANT WAREHOUSE	"	
69	X	DECONTAMINATION BLDG.		"
74U BCS		74U BRIDGE CRANE SUPPORTS		"
1A	X	PREPERATION PLANT	(2/28/95)	PLANT 1 COMP.
1B	X	PLANT ONE STORAGE BLDG.		"
30A		CHEMICAL WAREHOUSE		"
30B	X	DRUM STORAGE WAREHOUSE		"
56A		CP STORAGE WAREHOUSE		"

56B	X	STORAGE SHED (WEST)	"
56C	X	STORAGE SHED (EAST)	"

SUMMARY OF BUILDINGS APPROVED OR REQUESTED FOR DISPOSAL

APPROVED

BLDG. NO.	CERT. FIN.	DESCRIPTION	PKG.
66	X	DRUM RECONDITIONING BLDG.	PLANT 1 COMP.
67	X	PLANT 1 THORIUM WAREHOUSE	"
71		GENERAL IN-PROCESS WAREHOUSE	"
72	X	DRUM STROAGE BLDG.	"
73A	X	FIRE BRIGADE TRAINING CENTER BLDG.	FIRE TRAINING
73B	X	FIRE TRAINING POND (8/25/94)	"
73C	X	FIRE TRAINING TANK	"
73D	X	FIRE TRAINING BURN THROUGH	"
73E	X	CONFINED SPACE BURN TANK	"
10A	X	BOILER PLANT (10/8/96)	BLR/WTR PLT
10C	X	WET SALT STORAGE BIN	"
10D	X	CONTAMINATED OIL/GRAPHITE BURN PAD	"
18C		COAL PILE RUNOFF BASIN	"
20A		PUMP STATION AND POWER CENTER	"
20B	X	WATER PLANT	"
20C	X	COOLING TOWERS	"
24A	X	RAILROAD SCALE HOUSE	"
63	X	KC-2 WAREHOUSE	"

Amended approval form 4300.1 to add buildings 20A and 63. Typing error on form. Information was submited and approval was on DOE letter. DOE confirmed 10/22/98, filed.

APPROVED

9A	X	SPECIAL PRODUCTS PLANT (6/9/97)	PLANT 9 COMP.
9B	X	PLANT 9 SUMP TREATMENT FACILITY	"
9C	X	PLANT 9 DUST COLLECTOR	"
9D	X	PLANT 9 ELECTRICAL SUBSTATION	"
9E	X	PLANT 9 CYLINDER SHED	"
9F	X	PLANT 9 ELECTROSTATIC PRECIPITATOR	"
74K		PLANT 9 PAD	"
81	X	PLANT 9 WAREHOUSE (butler bldg.)	
32A	X	MAGNESIUM STORAGE BUILDING	"

32B	X	COVERED LOADING DOCK	"
64		THORIUM WAREHOUSE	"
65		PLANT 5 WAREHOUSE	"
78	X	D&D BUILDING (NEW)	"

SUMMARY OF BUILDINGS APPROVED OR REQUESTED FOR DISPOSAL

APPROVED

BLDG. NO.	CERT. FIN.	DESCRIPTION	PKG.
12A	X	MAIN MAINTENANCE BLDG.	MAINT/TANK FARM
12B	X	CYLINDER STORAGE BLDG.	"
12C	X	LUMBER STORAGE BLDG.	"
12D	X	MAINTENANCE BLDG. WAREHOUSE	"
24B	X	RAILROAD ENGINE HOUSE	"
38A		X APPROVED	
38B		X APPROVED	
19A	X	MAIN TANK FARM	"
19C	X	TANK FARM CONTROL HOUSE	"
19D	X	OLD NORTH TANK FARM	"
19E	X	TANK FARM LIME SLITTER BLDG.	"
20A		APPROVED	
20H		PROCESS WATER STORAGE TANK	"
G-008		PIPE BRIDGES	A

Maint/Tank Farm Complex to DOE-OH for approval 4/23/98, approved 5/20/98.

APPROVED

25A	X	CHLORINATION BLDG.	SEWAGE TREATMENT
25B	X	MAN HOLE 175 SAMPLING BLDG.	"
25D		UV DISINFECTION BLDG.	"
25E	X	DIGESTER & CONTROL BLDG.	"

HUD Approval 10/1/98, GSA approved 5/20/98 above buildings plus 25A assoc. Underground tank, Digester & Contol assoc. Tank, Sludge Drying Beds (2), Primary Settling Basins (2), Trickling Filters (2). APPROVED 10/23/98.

APPROVED

2E		NFS STORAGE AND PUMP HOUSE	MISC.SMALL STRUCT.
2F		COLD SIDE ORE CONVEYOR	D&D LOWHANG FRUIT
2G	X	HOT SIDE ORE CONVEYOR	"
3B		OZONE BUILDING	"

3C		NAR CONTROL HOUSE	"
3G	X	REFRIGERATION BUILDING	"
22A	X	GAS METER BUILDING	"
22D		SCALE HOUSE	"
39B	X	WASTE OIL DECANT SHELTER	"
39C	X	INCINERATOR SPRINKLER RISER HOUSE	"
60		QUONSET HUT 1	"
61		QUONSET HUT 2	"
62		QUONSET HUT 3	"

Prepare package. Sent 4300.1 form for Trygier approval (10/22/98). APPROVED 11/12/98.

SUMMARY OF BUILDINGS APPROVED OR REQUESTED FOR DISPOSAL

APPROVED

BLDG. NO.	CERT. FIN.	DESCRIPTION	PKG.
3D		NAR TOWERS AND TANKS	PLANT 3 COMPLEX
3E		HOT RAFFINATE BUILDING	"
3J		COMBINED RAFFINATE TANKS	" ***GSA 11/23 App.***
3K		OLD COOLING WATER TOWER	" ***GSA 11/23 App.***
39A		INCINERATOR BUILDING	"

Package returned by DOE-FN 11/20. APPROVED 12/14/98.

APPROVED

5A		METALS PRODUCTION PLANT	PLNT 5/6 COMPLEX
5B	X	PLANT 5 INGOT PICKLING	A
5C	X	PLANT 5 ELECTRICAL SUBSTATION	~~A~~"
5D		W. DERBY BREAKOUT/SLAG MILLING	~~A~~"
5E	X	PLANT 5 FILTER BLDG.	~~A~~"
5F		PLANT 5 COVERD STORAGE PAD	~~A~~"
5G	X	PLANT 5 INGOT STORAGE SHELTER	~~A~~"
55A		SLAG RECYCLING BLDG.	~~A~~"
55B		SLAG RECYCLING PIT/ELEVATOR	~~A~~"
6A		METALS FABRICATION PLANT	~~A~~"
6B		PLANT 6 COVERED STORAGE AREA	~~A~~"
6C		P 6 ELECTROSTATIC PRECIPITATOR S	~~A~~"
6D		P 6 ELECTROSTATIC PRECIPITATOR C	~~A~~"
6E		P 6 ELECTROSTATIC PRECIPITATOR N	~~A~~"
6F		P 6 SALT-OIL HEAT TREAT BLDG.	~~A~~"
6G		P 6 SUMP BLDG.	~~A~~"
77		FINISHED PRODUCTS WAREHOUSE (4A)	"

79	PLANT 6 WAREHOUSE	PLNT 5/6 COMPLEX
82A	RECEIV./INCOMING MATERIALS INSP.	"
20D	ELEVATED POTABLE STORAGE TANK	PLNT 5/6 COMPLEX
G-008 (APPROVED)	MAINT/TANK FARM) PIPE BRIDGES	

Package returned by DOE-FN 11/23. HUD request had to be resubmitted for 82A. HUD approved 77 & 82A 9/16/99. DOE-OH approved 7/8/99.

APPROVED

BLDG. NO.	CERT. FIN.	DESCRIPTION	PKG.
28A		Security Bldg.	Sec. & I.R. Bldg.
28B		Industrial Relations Bldg.	Sec. & I.R. Bldg.
22B		Storm Sewer Lift Station	Sec. & I.R. Bldg.

Package approved by DOE 7/24/00. Approved by GSA June 26, HUD 20 days after July 7.

SUMMARY OF BUILDINGS APPROVED OR REQUESTED FOR DISPOSAL

REQUESTED

BLDG. NO.	CERT. FIN.	DESCRIPTION	PKG.
2B		General/Refinery Sump Control	Sumps
18B		General Sump	
3H		Refinery Sump	

Package approved by DOE 3/13/01. Package had pre-approval by GSA & HUD.

53A		Health & Safety Building	Health & Safety Bldg

Requests for D&D approval sent to GSA & HUD.

Personal Property on Remediation Schedule (no 4300.1, should have approved 563's)

7B	F	PLANT 7 OVERHEAD CRANE	Equipment
10B	F	BOILER PLANT MAINTENANCE BLDG.	Butler Bldg.
10E	F	UTILITIES HEAVY EQUIPMENT BLDG.	Butler Bldg.

SECTION 1

2.0 MANPOWER PLANS

Manpower Planning Sheet (CR2)

MPS # 1AB01 PROPERTY

	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
202	PLANT 5 D&D	10/02/2000	08/28/2001		xxx xxx xxx xx					
203	PLANT 6 D&D	10/02/2000	04/09/2002		xxx xxx xxx xxx	xxx xxx x				
204	BUILDING 64/65 D&D	07/01/2004	09/28/2004					xxx		
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
210	OU1 COMPLEX D&D	12/03/2004	07/29/2005						x xxx xxx x	
211	OU4 SILOS SUPERSTRUCTURE D&D	10/02/2006	10/31/2007							
212	OFFICE TRAILER D&D	10/03/2005	04/03/2007							xxx xxx xxx xxx
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	
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							
632	Area 5: Excavation	10/03/2005	03/31/2008							xxx xxx xxx xxx
638	Natural Resources Restoration	10/01/2003	12/31/2009					xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx
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	

Administration	Clerks	121.00	7	7	7	7	5	5	5	5	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3
Procurement	Material Property Control Mgr.	71.00	5	5	5	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1.5	1.5	1.5	1.5
Procurement	Material Property Control Rep.	230.00	11	11	11	11	9	9	9	9	9	9	9	9	5	5	5	5	5	5	5	5	5	5	5	5

Manpower Planning Sheet (CR2)

MPS # 1AB01 PROPERTY

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
202 PLANT 5 D&D	10/02/2000	08/28/2001					
203 PLANT 6 D&D	10/02/2000	04/09/2002					
204 BUILDING 64/65 D&D	07/01/2004	09/28/2004					
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					
210 OU1 COMPLEX D&D	12/03/2004	07/29/2005					
211 OU4 SILOS SUPERSTRUCTURE D&D	10/02/2006	10/31/2007	xxx xxx xxx xxx	x			
212 OFFICE TRAILER D&D	10/03/2005	04/03/2007	xxx xxx x				
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					
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			
632 Area 5: Excavation	10/03/2005	03/31/2008	xxx xxx xxx xxx	xxx xxx			
638 Natural Resources Restoration	10/01/2003	12/31/2009	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx 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					

Administration	Clerks	3	3	3	3	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
Procurement	Material Property Control Mgr.	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
Procurement	Material Property Control Rep.	5	5	5	5	4	4	4	4	4	4	4	4	2	0	0	0	0	0	0	0

Manpower Planning Sheet (CR2)

MPS # 1AB01 PROPERTY

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	Professional Warehouse Attendent		325.00	19	19	15	15	13	13	13	13	13	13	13	13	11	11	11	11	9	9	9	9	8	8	8	8
	Transportation Labor	QA Checker		32.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	QA/QC	QA Engineer		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
	Environmental Safety & H	Rad Tech		24.50	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
		Sheet Totals:		807.50	45.00	45.00	41.00	41.00	31.00	31.00	31.00	31.00	30.00	30.00	30.00	30.00	22.50	22.50	22.50	22.50	20.50	20.50	20.50	20.50	19.00	19.00	19.00	19.00

Manpower Planning Sheet (CR2)

MPS # 1AB01 PROPERTY

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	Professional Warehouse Attendent		6	6	6	6	2	2	2	2	2	2	2	2	1	0	0	0	0	0	0	0
Transportation Labor	QA Checker		1	1	1	1	1	1	1	1	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
Environmental Safety & Health	Rad Tech		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	0	0	0	0	0	0
		Sheet Totals:	16.50	16.50	16.50	16.50	9.50	9.50	9.50	9.50	8.50	8.50	8.50	8.50	5.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00

SECTION 1

3.0 ESTIMATE

ASVC1

PROPERTY

09/07/2001
12:09 PM

PBS: 01
WBS: 1.1.A.B
CTRL ACCT: ASVC
CHARGE NO: ASVC1
COMMENT NO: FO1-031

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
**** STATED IN FY01 DOLLARS ****
(1 FTE EQUALS 1747 HOURS)

DATE: 13 MAY 2001
PROJECT MGR: R. NICHOLS
CAM: R. NICHOLS
PREPARED BY: L. HAMPSHIRE
ALL FISCAL YEARS

Resource: CLERKS **CLERKS** **EOC:** LABOR
Res Dept: **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:	10,164.0	8,735.0	6,988.0	5,241.0	5,241.0	5,241.0	5,241.0	1,747.0	1,747.0	421.0
Cum Hours:	10,164.0	18,899.0	25,887.0	31,128.0	36,369.0	41,610.0	46,851.0	48,598.0	50,345.0	50,766.0
Yr Total Cost:	242,818	219,652	186,124	147,823	156,586	167,295	181,361	63,719	70,810	17,590
Cum Total Cost:	242,818	462,469	648,593	796,417	953,003	1,120,298	1,301,660	1,365,379	1,436,188	1,453,778

Resource: MAT300 **MATERIAL OBJCLASS300** **EOC:** MATERIAL
Res Dept: 950 **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:	114,205.0	119,326.0	114,357.0	98,582.0	81,399.0	74,431.0	56,744.0	37,218.0	25,505.0	4,719.9
Cum Units:	114,205.0	233,531.0	347,888.0	446,470.0	527,869.0	602,300.0	659,044.0	696,262.0	721,767.0	726,486.9
Yr Total Cost:	114,205	122,548	120,616	106,889	90,729	85,368	66,970	45,199	31,872	6,069
Cum Total Cost:	114,205	236,753	357,368	464,257	554,986	640,354	707,324	752,523	784,395	790,464

Resource: MPCMGR **MATL PROP CTRL MGR** **EOC:** LABOR
Res Dept: **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:	7,260.0	3,494.0	3,494.0	3,494.0	3,494.0	2,620.5	1,747.0	1,747.0	1,747.0	421.0
Cum Hours:	7,260.0	10,754.0	14,248.0	17,742.0	21,236.0	23,856.5	25,603.5	27,350.5	29,097.5	29,518.5
Yr Total Cost:	334,323	169,359	179,385	189,961	201,222	161,238	116,530	122,824	136,491	33,906
Cum Total Cost:	334,323	503,682	683,067	873,028	1,074,250	1,235,488	1,352,018	1,474,841	1,611,333	1,645,239

Resource: MPCREP **MATL PROP CTRL REP** **EOC:** LABOR
Res Dept: **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:	15,972.0	15,723.0	15,723.0	8,735.0	8,735.0	8,735.0	8,735.0	6,988.0	6,988.0	842.0
Cum Hours:	15,972.0	31,695.0	47,418.0	56,153.0	64,888.0	73,623.0	82,358.0	89,346.0	96,334.0	97,176.0
Yr Total Cost:	516,215	534,887	566,552	333,309	353,067	377,214	408,930	344,813	383,184	47,594

INCLUDES ESCALATION COSTS

Cum Total Cost:	516,215	1,051,102	1,617,654	1,950,963	2,304,030	2,681,244	3,090,174	3,434,987	3,818,171	3,865,764

Resource: ODC700 **ODC 700** **EOC:** ODC
Res Dept: 950 **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:	2,901.0	1,947.0	1,888.0	1,446.0	1,328.0	1,239.0	1,033.0	540.3	581.7	325.0
Cum Units:	2,901.0	4,848.0	6,736.0	8,182.0	9,510.0	10,749.0	11,782.0	12,322.3	12,904.0	13,229.0
Yr Total Cost:	2,901	2,000	1,991	1,568	1,480	1,421	1,219	656	727	418
Cum Total Cost:	2,901	4,901	6,892	8,460	9,940	11,361	12,580	13,236	13,963	14,381

Resource: ODCTRVL **TRAVEL RESOURCE** **EOC:** ODC
Res Dept: 950 **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:	2,754.0	1,848.0	1,792.0	1,372.0	1,260.0	1,176.0	980.0	588.0	476.0	308.0
Cum Units:	2,754.0	4,602.0	6,394.0	7,766.0	9,026.0	10,202.0	11,182.0	11,770.0	12,246.0	12,554.0
Yr Total Cost:	2,754	1,898	1,890	1,488	1,404	1,349	1,157	714	595	396
Cum Total Cost:	2,754	4,652	6,542	8,030	9,434	10,783	11,939	12,653	13,248	13,644

Resource: PROWHA **PROF WAREHOUSE ATTEN** **EOC:** LABOR
Res Dept: **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:	24,056.0	22,711.0	22,711.0	19,217.0	15,723.0	13,976.0	10,482.0	3,494.0	3,494.0	421.0
Cum Hours:	24,056.0	46,767.0	69,478.0	88,695.0	104,418.0	118,394.0	128,876.0	132,370.0	135,864.0	136,285.0
Yr Total Cost:	639,168	635,160	672,761	602,823	522,457	496,167	403,413	141,734	157,506	19,563
Cum Total Cost:	639,168	1,274,328	1,947,089	2,549,912	3,072,368	3,568,535	3,971,948	4,113,682	4,271,188	4,290,752

Resource: QACENG **QA ENGINEER** **EOC:** LABOR
Res Dept: **Overtime:** FY01 **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:	66,734	0	0	0	0	0	0	0	0	0
Cum Total Cost:	66,734	66,734	66,734	66,734	66,734	66,734	66,734	66,734	66,734	66,734

Resource: QACKR **QA CHECKER** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** HOU

09/07/2001
12:09 PM

	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	1,747.0	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	13,681.0	13,681.0	13,681.0
Yr Total Cost:	41,905	53,069	56,211	59,525	63,054	67,366	73,030	76,975	0	0
Cum Total Cost:	41,905	94,974	151,185	210,711	273,765	341,131	414,161	491,136	491,136	491,136

Resource: RADTEC **RAD TECH** **EOC:** LABOR
Res Dept: **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	873.5	873.5	873.5	210.5
Cum Hours:	1,452.0	3,199.0	4,946.0	5,819.5	6,693.0	7,566.5	8,440.0	9,313.5	10,187.0	10,397.5
Yr Total Cost:	49,484	62,668	66,378	35,146	37,229	39,776	43,120	45,449	50,506	12,546
Cum Total Cost:	49,484	112,152	178,531	213,677	250,906	290,681	333,801	379,250	429,756	442,303

Resource: SERVSUB **SUBS** **EOC:** SUBCONTRACTORS
Res Dept: 950 **Overtime:** BELL **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:	19,000.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Units:	19,000.0	19,000.0	19,000.0	19,000.0	19,000.0	19,000.0	19,000.0	19,000.0	19,000.0	19,000.0
Yr Total Cost:	19,000	0	0	0	0	0	0	0	0	0
Cum Total Cost:	19,000	19,000	19,000	19,000	19,000	19,000	19,000	19,000	19,000	19,000

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:	61,808.0	54,157.0	52,410.0	39,307.5	35,813.5	33,193.0	28,825.5	16,596.5	14,849.5	2,315.5
Cum Hours:	61,808.0	115,965.0	168,375.0	207,682.5	243,496.0	276,689.0	305,514.5	322,111.0	336,960.5	339,276.0
Yr Total Cost:	2,029,507	1,801,240	1,851,908	1,478,532	1,427,230	1,397,193	1,295,730	842,082	831,691	138,082
Cum Total Cost:	2,029,507	3,830,747	5,682,655	7,161,187	8,588,416	9,985,610	11,281,340	12,123,422	12,955,113	13,093,195

CAM R Nichols CONTROL TEAM Rodney Whitaker

INCLUDES ESCALATION COSTS

SECTION 1

4.0 RISK PLAN

Risk/Opportunity Identification and Analysis Form

Project: Facility Project Support		PBS Number: 01			Total Baseline Cost (Minimum Case):			$140,012,846		
Evaluator:RobertHammack Date: 4/30/01		WBS Number: 1.1.A.B.								
CAM: Bob Nichols Date: 4/30/01		Control Account Numbe ASVC								
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**
Disposition Excess Property (ASVC1)	Reclassify AIP property in abondandoned facilities as excess property (50% additional scope)	Additional resources needed to remove and disposition excess property	Internal	$920,000	2	10	2	$92,000	3	Accept
Roof Repairs (ASVC3)	Increase in expected roof degradation leading to leaks (not B53)	Increased cost in roof repairs	Internal	$225,000	2	85	5	$191,250	3	Accept - Remaining property excessed in place
HVAC Repairs (ASVC3)	Building demolition schedule delayed, requiring longer HVAC service (not B53)	Increased repair to existing HVAC systems	Internal	$200,000	2	85	5	$170,000	3	Accept
HVAC Replacement (ASVC3)	Building demolition schedule delayed, requiring longer HVAC service	Total replacement of HVAC systems	Internal	$500,000	2	75	3	$375,000	2	Accept
Craft Availability (ASVC3)	Lack of available craft support personnel	Increase in OT; delays in work schedules	Internal	$1,000,000	3	50	3	$500,000	3	Accept
Maintenance (ASVC3)	Maintenance required to "fix" problems incurred by the installation of services/facilities by subcontractors. (ASVC3)	Lack of funding and/or inadequate manpower to support this additional responsibility (while maintaining current site duties).	Internal	$350,000	2	10	1	$35,000	1	Accept
Maintenance (ASVC3)	Maintenance required to "fix" problems incurred by the installation of services/facilities by subcontractors. (ASVC3)	Lack of funding and/or inadequate manpower to support this additional responsibility (while maintaining current site duties).	Internal	$70,000	4	70	1	$49,000	2	Accept
Maintenance (ASVC3)	Increase in Maintenance manpower requirements due to additional facility maintenance. (ASVC3)	Lack of funding and/or inadequate manpower to support this additional responsibility (while maintaining current site duties).	Internal	$200,000	2	20	2	$40,000	2	Accept

Risk/Opportunity Identification and Analysis Form

Project: Facility Project Support		PBS Number: 01			Total Baseline Cost (Minimum Case):			$140,012,846		
Evaluator:RobertHammack Date: 4/30/01		WBS Number: 1.1.A.B.								
CAM: Bob Nichols Date: 4/30/01		Control Account Numbe ASVC								
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
Maintenance (ASVC3)	Unanticipated turnover of equipment/facilities by subcontractors. (ASVC3)	Lack of funding and/or inadequate manpower to support this additional responsibility (while maintaining current site duties).	Internal	$70,000	1	50	3	$35,000	1	Accept
Maintenance (ASVC3)	More failures in utility services than baselined. (ASVC3)	Lack of funding and/or inadequate manpower to support this additional responsibility (while maintaining current site duties).	Internal	$210,000	2	20	2	$42,000	2	Accept
Maintenance (ASVC3)	Additional training costs due to workforce turnover. (ASVC3)	Lack of funding and/or inadequate manpower to support this additional responsibility (while maintaining current site duties).	Internal	$70,000	1	50	3	$35,000	1	Accept
Maintenance (ASVC3)	Unanticipated RAD exposure to workers (such as those supporting current projects such as IT) (ASVC3)	Loss of craft (because they will not be allowed on the controlled side for a period of time) manpower, which will in turn increase backlog and may require additional craft support either from upgrading internally or by external sources.	Internal	$150,000	2	20	2	$30,000	1	Reduce/Mitigate
Maintenance (ASVC3)	Repair parts not available on certain aging systems (which then require new full installations). (ASVC3)	Lack of funding to support these unanticipated repairs (if deemed "necessary" systems).	Internal	$3,890,000	3	25	2	$1,472,250	3	Reduce/Mitigate, Identify possible needs
Distributes site laundry/PPE (ASVC4)	Laundry Subcontract /Service is cancelled or shutdown	Additional resources needed to implement on-site laundry service	Internal	$4,900,000	3	10	2	$490,000	3	Accept

Risk/Opportunity Identification and Analysis Form

Project: Facility Project Support		PBS Number: 01				Total Baseline Cost (Minimum Case):			$140,012,846		
Evaluator:RobertHammack Date: 4/30/01		WBS Number: 1.1.A.B.									
CAM: Bob Nichols Date: 4/30/01		Control Account Numbe ASVC									
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**
Collection of Sewage and Transference to Sewage Treatment (ASVC5)	Failure of either or both sewage lift station pumps. Building will also require some repairs.	Loss of the use of restroom facilities for the total site. Increased costs due to additional port-a-lets. Possible environmental impact.	Internal	$150,000	2	95	5	$142,500	3	Accept
Supply Steam to facilities (ASVC5)	Steam Leaks in Overhead lines or Boiler shutdown cause failure to deliver steam to part or all of site	Catastrophic facilities losses due to damage to equipment/facilities. Possible radiological or asbestos concerns.	Internal	$8,000,000	2	70	4	$3,464,500	2	Reduce/Mitigate
Supply Steam to facilities (ASVC5)	Loss of Feed Water Pumps.	Replace pumps. Possible collateral damaged due to cold and water damage.	Internal	$75,000	1	70	4	$52,500	2	Reduce/Mitigate
Supply Compressed air to site (ASVC5)	Loss of one or both air compressors. motor failure within two years	Shutdown of some AWWT operations. Loss of ability to control some valves and HVAC controls	Internal	$300,000	2	75	5	$225,000	3	Accept
Off-Site Leases (ASVC5)	The leases are cancelled before contract terms	Higher lease cost for off-site office space and warehouse facilities	Internal	$8,000,000	4	25	2	$2,000,000	5	Accept
Off-Site Leases (ASVC5)	The leases prices are increased at end of existing contract period greater than expected (Consumer Price Index)	Higher lease cost for off-site office space and warehouse facilities by 5%	Internal	$700,000	2	50	3	$350,000	2	Accept
ASVC6 - Labor Hour Support	Additional craft training costs due to workforce turnover	Insufficient budget	Internal	$240,000	3	50	3	$120,000	4	Reduce by planning and scheduling projects to maintain stable workforce
ASVC6 - Labor Hour Support	Insufficient available craft	Delays to project schedules	Internal	$60,000	2	10	1	$6,000	1	Reduce by identifying and planning project early and communicating needs to union halls
ASVC6 - Labor Hour Support	Damage to equipment occurs during job	Replacement/repair of equipment	Internal	$300,000	1	10	1	$30,000	1	Accept risk
ASVC6 - Labor Hour Support	Contractor default	Procure new contractor	Internal	$50,000	1	10	1	$5,000	1	Accept risk

Risk/Opportunity Identification and Analysis Form

Project: Facility Project Support		PBS Number: 01			Total Baseline Cost (Minimum Case):			$140,012,846		
Evaluator:RobertHammack	Date: 4/30/01	WBS Number: 1.1.A.B.								
CAM: Bob Nichols	Date: 4/30/01	Control Account Numbe ASVC								
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
			Total:	$30,630,000			Total:	$9,952,000		
Maintenance (ASVC3)	Increase in procedural requirements imposed by external audits. (ASVC3)	Various, although additional requirements generally increase unanticipated manpower, which in turn require more funding.	External	$250,000	2	20	2	$50,000	2	
Maintenance (ASVC3)	Changes to asbestos compliance regulations (by state, federal, and site groups). (ASVC3)	Various, although additional requirements generally increase unanticipated manpower, which in turn require more funding.	External	$50,000	1	10	1	$5,000	1	
Maintenance (ASVC3)	Changes to OSHA standards (such as more stringent scaffolding requirements).	Various, although additional requirements generally increase unanticipated manpower, which in turn require more funding.	External	$100,000	2	10	1	$10,000	1	
Maintenance (ASVC3)	Minor repair for damage by forces of nature (such as lightning strikes to facilities). (ASVC3)	Various, depending on the type of damage and the source.	External	$100,000	2	5	1	$5,000	1	
Inspect rigging and fall protection equipment/activities (ASVC5)	Regulatory drivers, such as OSHA or DOE, change	Increased frequencies of inspections	External	$400,000	2	25	2	$100,000	2	

WBS DICTIONARY
CONTROL ACCOUNT/CHARGE NUMBER

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.A.B	INFRASTRUCTURE SERVICES	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
ASVC2	TRANSPORTATION	

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Subcontractors
Materials
ODC's

b. TECHNICAL CONTENT:

There are 4 site level activities covered in this charge number. Transportation is a "service" function that is based on the overall site manpower and activity levels. The budget for the management personnel responsible for each of the following services are included in this charge number.

The 4 site level activities are:

MANAGEMENT SUPPORT

This section provides the interface to manage and administer DOE owned, rented or leased motor powered equipment. Records Management and reporting functions associated with maintaining and operating this resource are covered here and "Cradle to Grave" oversight for this government provided resource resides in this scope. Budget to provide replacement vehicles and equipment are included in this scope document. This budget also includes the purchase, lease, rental, and maintenance of all DOE fleet vehicles and equipment.

VEHICLE AND EQUIPMENT REPAIR GARAGE

This charge number provides maintenance services on DOE owned, rented, or

Project Manager	Control Account Manager	Control Team Manager
L N Hampshire	R Nichols	Rodney Whitaker

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.A.B	INFRASTRUCTURE SERVICES	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
ASVC2	TRANSPORTATION	

14. ELEMENT TASK DESCRIPTION

leased "motor driven" equipment. "Motor driven" is defined as machinery driven by internal combustion, electric and alternative fuel powered devices. Budget for parts, labor, and shipping to maintain this resource are included. Tools appropriate for the performance of this task are provided under this charge number. Specialized training for the craft and staff along with travel is included. This service is defined in the language of the FAT&LC contract. Work outside the scope of responsibility of the Industrial Mechanic is not covered by this charge number.

TRANSPORTATION DELIVERIES

Commodity deliveries from vendor facilities to FEMP projects or activities are included in this charge number. Budget for drivers and the associated costs for specialized licenses (i.e., CDL) are included. Material handling device operators, transportation laborers, and their supervisory staff are included. Inter-plant commodity deliveries are also part of this scope. Activity specific training on machinery and work saving devices is included.

HEAVY EQUIPMENT SUPPORT

Operators of large specialized material handlers are covered by this scope, including mobile crane operation, dust abatement trucks, snow and ice removal equipment, farm tractor and bush hog equipment, the Fernald bus service, bulldozer operation, road grader, back hoes and track hoes. Training for these operators and their supervision are also in this scope.

c. SCOPE OF WORK:

MANAGEMENT SUPPORT

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.A.B	INFRASTRUCTURE SERVICES	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
ASVC2	TRANSPORTATION	

14. ELEMENT TASK DESCRIPTION

This department provides the interface to manage DOE owned, rented, or leased motor powered equipment and is focused via the Vehicle and Equipment Administration function. This equipment can be internal combustion, electric or alternative fuel powered. Records Management functions associated with maintaining and operating this resource is included. Cradle to Grave oversight for this government provided resource resides in this scope.

The following functions are part of this scope:

- Provide the "Fleet Manager" to oversee the operation of the Fluor Fernald DOE owned Fleet Vehicles and Equipment, including heavy equipment.
- Provide Point of Contact for the State and Federal Regulators for operation of the Fluor Fernald Motor Carrier.
- Centralized focal point for closure actions associated with damage events on DOE owned, rented or leased vehicles and equipment to include interfacing with IR/HR and project management to ascertain HR-145 applicability and consistency.
- Vehicle purchases in FY2001, FY2002, and FY2003.
- Heavy equipment purchases.
- Purchase all fuel, track all fuel consumption and maintain the database associated with the "Gas Boy" fuel dispensing facility. The annual consumption of fuel is projected as follows: 45,000 gallons of 87 octane gasoline, 30,000 gallons of fossil diesel fuel, and 6,000 gallons of bio-diesel fuel.
- Generation of internal and external reports and documents associated with fleet management.

VEHICLE GARAGE

This scope covers the performance of "Planned" and "Corrective" maintenance for government owned, leased or rented vehicles and equipment. This scope of the Industrial Mechanic covers drive train components, frame and chassis service, brake systems maintenance, painting, non-certified welding, and vehicle related accessory maintenance and tire replacement.

Garage Management and Administrative Support is responsible for the following:

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(Work Package)

1. PROJECT TITLE	2. DATE	
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.A.B	INFRASTRUCTURE SERVICES	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
ASVC2	TRANSPORTATION	

14. ELEMENT TASK DESCRIPTION

- Directing the day to day activities of the Industrial Mechanics (IM).
- Scheduling repair evolutions to meet the needs of the projects.
- Interfacing with vendors to assure correct parts purchases and to provide technical assistance in critical repair evolutions.

- Oversee the generation of reports associated with Fleet maintenance histories to assure the quality of the database.
- Oversee the generation of department reports (Vehicle Administration) for quality and consistency.
- Utilization of the P Card to purchase parts and supplies.
- Generation of reports and entering data in Tabware.

The services that the Vehicle Garage craft provide include:

- Vehicle and equipment filter changes
- Jump Starts
- Consumable component replacement (i.e., wiper blades, fan belts and hoses)
- Electrical component replacement (wiper motors, heater motors, starters, alternators lights and bulbs)
- Tire replacement
- Glass replacement
- Brake component replacement/repair
- Fuel pump or system component replacement
- Body work
- Wheel Alignment and balancing
- Diagnostic Testing
- Transmission filter and fluid replacement
- Differential lubrication replacement/addition
- Chassis lubrication
- Drive train lubricant
- Engine coolant and cooling system repair
- Air conditioner repair and refrigerant additions
- Shocks, mufflers and exhaust system replacement
- Hydraulic system repair lubricant replacement/addition
- Internal (driver comfort) accessory maintenance
- Engine, drive train and chassis repairs

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.A.B	INFRASTRUCTURE SERVICES	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
ASVC2	TRANSPORTATION	

14. ELEMENT TASK DESCRIPTION

- Replacement of wooden flooring components on shipping trailers
- Non-certified welding on vehicles and motorized equipment
- Maintaining the Garage Satellite Accumulation Area (SAA) to site standards by preparing full drums from this area for transfer to Waste Generator Services Division.
- Emission testing (and associated repairs) to achieve "E Check" compliance in Hamilton and Butler Counties.

This scope also covers non-project activities that include: low level waste rental equipment, power outages, shop clean up, union business, garage truck checks bicycle repair, trailer inspection, stocking inventory, and push lawn mower repairs. Also, this scope includes transportation support for ERT runs, both on-site and off-site, during first shift.

TRANSPORTATION DELIVERIES

This charge number includes the budget for the Transportation deliveries Manager, Supervisors, and craft. These activities include:

- Oversee the generation of the Motor Carrier Records produced by the Drivers.
- Interface with the garage to assure equipment and vehicle availability.
- Deliver consumable items and "in house" stores supplies from receiving to project location.
- Delivery of parts and supplies to the Fernald Garage from off-site vendor.
- Delivery of materials and supplies from off-site vendors to projects or field activities if the trip can be made without an overnight stay.
- Delivery of bottled gas (P10, LPG and welding supplies) from receiving/stores to projects or field activities.
- Pick-up and delivery of Federal Express packages (on-site).
- Transport x-rays photographs to and from local hospitals for Fernald Medical Department.
- Movement of excess materials and supplies to property staging areas (on and off site)
- Delivery of non-consumable items from receiving to requestor.
- Provide transportation for "injured" team members.
- Provide Fernald bus service.

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.A.B	INFRASTRUCTURE SERVICES	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
ASVC2	TRANSPORTATION	

14. ELEMENT TASK DESCRIPTION

- Provide material handling support for Fernald warehouse operations.
- Movement of non-hazmat materials and supplies on the public highways.

HEAVY EQUIPMENT SUPPORT

This charge number provides for the budget of the HEO salary management staff and craft. These duties include:

- Creating daily work schedules and operator assignments.
- Provide Heavy Equipment support for repairs initiated by in-house maintenance on utilities and structures (existing systems or structures maintenance).
- Replacement of pumps, well heads and similar existing facility items.
- Utility excavation
- Movement of excess materials and supplies to and from the dedicated Fernald warehouses or staging areas.
- Dust abatement for non-project area, roads and other surfaces.
- Snow and ice abatement for roadways, parking lots and storage pads.
- Grass mowing in "large-scale" (bush hog operation) non-project areas.

d. WORK SPECIFICALLY EXCLUDED:

- Material costs incurred by maintenance trades' personnel other than Industrial Mechanics.
- Replacement of any facility components.
- Vehicle Purchases when the primary purpose of the vehicle is to act as a platform for monitoring or data gathering devices, which require specifically, modified or fabricated accessories not readily available from GSA or other "used vehicle" suppliers.
- EPact compliance to purchase vehicles not readily available from our recognized source to meet "Alternative Fueled" vehicle purchase compliance.

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(Work Package)

1. PROJECT TITLE	2. DATE	
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.A.B	INFRASTRUCTURE SERVICES	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
ASVC2	TRANSPORTATION	

14. ELEMENT TASK DESCRIPTION

- Fueling facility (Gas Boy) modifications to support dispensing or storing alternative fuels to comply with EPact, if the modifications exceed $10K in parts and labor.
- Waste processing activities for garage waste streams.
- Fluor Fernald Fleet Insurance costs where additional liability insurance is purchased above the state minimum requirement for vehicle insurance.
- Procurement of specialized equipment to perform a specific project function.
- Computer purchases and upgrades.
- Fluor Fernald General and Administrative Budget.

SECTION 2

1.0 NARRATIVE

1. PROJECT TITLE: FACILITY AND PROJECT SUPPORT	2. DATE: 09/10/01	3. PBS#: 01
4. WBS ELEMENT CODE: 1.1.A.B.	5. WBS ELEMENT TITLE: INFRASTRUCTURE SERVICES	
6. CAM NAME/ PHONE: ROBERT HAMMACK	7. CAM SIGNATURE:	
8. ORIGINAL/ CHANGE SCOPE/ PER CP#:	9. CONTROL ACCOUNT: ASVC	

PART 2: ASVC – INFRASTRUCTURE SERVICES
Section 2: ASVC2 - Transportation

1.0 NARRATIVE

1.1 OVERVIEW

There are 4 site level activities covered in this charge number. These activities provide various services to all the Projects listed on the schedule 6 scenario. Transportation is a "service" function that is based on the overall site manpower and activity levels. The wages for the management personnel responsible for each of the following services are included in this charge number.

The 4 site level activities are:

Management Support

This department provides the interface to manage and administer DOE owned, rented or leased motor powered equipment. This equipment can be internal combustion, electric or alternative fuel powered. Records Management and reporting functions associated with maintaining and operating this resource are covered here and "Cradle to Grave" oversight for this government provided resource resides in this department. Funds to provide replacement vehicles and equipment are included within the parameters defined in the scope of this document. These funds purchase, lease, rent, and maintain all DOE fleet vehicles and equipment.

R1-D-488

Vehicle and Equipment Repair Garage

This department provides maintenance services on DOE owned, rented or leased "motor driven equipment. "Motor driven" is defined as machinery driven by internal combustion, electric and alternative fuel powered devices. Costs for parts labor and shipping to maintain this resource are included. Tools appropriate for the performance of this task are provided under this charge number. Specialized training for the craft and staff along with travel is included. This service is defined in the language of the FAT&LC contract. Work outside the scope of responsibility of the Industrial Mechanic is not covered by this charge number.

Transportation Deliveries

Commodity deliveries from vendor facilities to FEMP projects or activities are included in this charge number. Wages for drivers and the associated costs for specialized licenses (i.e., CDL) are included. Material handling device operators, transportation laborers, and their supervisory staff are included. Inter-plant commodity deliveries are also part of this scope. Activity specific training on machinery and work saving devices is included.

Heavy Equipment Support

Operators of large specialized material handlers are covered by this scope, which includes mobile crane operation, dust abatement trucks, snow and ice removal equipment, farm tractor and bush hog equipment, the Fluor Fernald Bus service, bulldozer operation, road grader, back hoes and track hoes. Training for these operators and their supervision are also in this scope.

Specific limitations and inclusions are defined in the text of this document to assure inter organizational cross walk for resources and reduce the possibility of multiple charging between organizations.

1.2 ASSUMPTIONS/EXCLUSIONS

1.2.1 Assumptions

Legend

G = General
M = Management
VG = Vehicle Garage
TD = Transportation Deliveries Support
HE = Heavy Equipment

- (G) The scope of work activities performed by this department will not change for the life the FEMP Remediation Project. Most of the work associated with this charge number is defined in the FAT&LC Agreement. Historical data indicates it is unlikely that drastic changes will be implemented in this area.

- (G) DOE will continue to rent, lease or purchase all fleet vehicles and equipment currently tracked and maintained by this group. Vehicle Administration and the Fluor Fernald Fleet Manager will continue to coordinate the usage of this resource.

R1-D-489r

- (VG) The mutual aid ~~contract~~ agreement with the local communities will terminate ~~in~~ by the end of FY2004. ~~In the first quarter of FY2005~~ At that time, Transportation resources to support the mutual aid ~~contract~~agreement will no longer be provided.

R1-D-489

R1-F01-014

- Mutual aid will be provided by this charge number on first shift only. Mutual aid on 2nd and 3rd shift is budgeted under PBS12

- (G) 45 vehicles to supplement and replace units in the Fluor Fernald/DOE owned fleet will be purchased. The GSA sales will be the mechanism to provide these vehicles and the current alternative fuels issues will not apply to the FEMP. The maximum price for these 45 vehicles will be $15K each. (Note: Additional costs associated with EPact compliance, purchase of alternative fueled vehicles, is not covered in this charge number) This is an educated guess based on the Fleet Manager's overall knowledge of the fleet condition, how fast the incumbent vehicles are being removed from service, accident rates and allowable maintenance costs.

- (M)The cost for diesel and gasoline fuel charges will not exceed $2.00 per gallon for the duration of schedule 6 scenario. Additional funding resources will need to be considered if charges exceed $2.00 per gallon.

R1-D-498

R1-D-046

~~(M) This charge number will include the DOE portion of the Fleet Insurance payment not to exceed $60K per year for the life of the project. This is based on a historical basis from insurance costs over the past three years. The potential for adding numbers of vehicles or coverage options to this policy drives this limit.~~

- (HE) All non-project areas where "large-scale" grass mowing (bush hog operation) is required will be covered in this charge number. This includes areas within an approximate "200-foot" perimeter of a project or field activity.

- (G) Costs associated with the purchase of Bio-Diesel Fuel will be included in this charge number to a limit price of $2.50 per gallon.

- (G) A mass exodus of skilled staff or craft persons that requires a large-scale training event will not be experienced. Large-scale training would be defined as a training evolution driven by ¼ of our staff (salary or wage) requiring this skill to insure our ability to provide continuity and quality of service.

- (G)There will be no costs incurred to this charge number associated with facility replacement or repairs for the life of this project. All costs of this nature will be associated with Facilities maintenance or the Facilities usage areas.

- (TD) All Motor Carrier activities requiring the Commercial Driver's License (CDL) will be phased out by the first quarter of FY-2003.

- (VG) Planned and Corrective Maintenance activities on DOE owned, rented or leased Vehicles, Heavy equipment and "motor powered equipment" are part of this charge number

- (G) This charge number will cover emission testing to achieve "E Check" compliance in Hamilton and Butler Counties. Repairs (parts and labor) to vehicles to achieve "E" Check certification will follow the guidelines for corrective maintenance

- (G) Rock salt will be the approved chemical for roadway deicing activities for the life of the project. This charge number provides rock salt for all non-project areas for transportation and maintenance areas of responsibilities.

- (G) TSS-8 will remain as the salt storage facility for the execution of schedule 6 scenario. There will be no additional costs incurred by this charge number to provide an alternative facility.

R1-D-044

- (VG) The Garage, to include all of Bldg. 31 and the south bay of Bldg. 46, will remain in service until July 2005 (schedule scenario #6). ~~Then the locomotive engine house (bldg. 24C) and the large bay of RIMIA (bldg. 82) will serve as garage facilities for the rest of the project.~~

- (TD) All site tours will cease by the 1st quarter of FY-2003.

R1-D-043

- (G) The "Gas Boy" fueling facility will remain active in its present location as long as it does not interfere with any D&D activities ~~the project requires it. (Schedule #6 scenario)~~. This charge number will provide all fuel dispensed at this facility.

- (HE) The EPA requirements for dust abatement will not change during execution of schedule 6 scenario. Currently operating filling stations will remain available for the execution of schedule 6 scenario.

- (HE) The HEO wage staff will be merged with the Waste Generator Services HEO wage staff to provide flexibility with this resource. This will prevent the addition of staff in this classification to support the accelerated waste shipment activities.

- (HE) The dust abatement equipment and the water dispensing facilities will not require replacement.

R1-D-048

- (G) The following activities covered in this charge number will require overtime (~~premium~~ hours):

  - Industrial Mechanic schedule associated with 24/7 ERT Mutual Aid agreement (This will be eliminated by 1st quarter of FY2005).

  - Snow and Ice abatement actions

  - Dust Abatement actions

- (VG) Starting with the first quarter of FY 2005, 1st shift coverage will go to 5 days per week

R1-D-035

- (G) Manpower calculations are based on the following four possible sources: Historical Data (HD), Industry Standard (IS), Composite of HD & IS (Comp), and Professional Judgement (PJ). See Calculation Table ~~in~~ following Section ~~V~~ 1.4.4 for calculations by work scope activity/sub activity

R1-F01-002

- (G) Other Direct Costs (ODCs) are based on FY00 actual cost of work performed and budgeted manpower (FTEs), as follows: ODC$s/FTEs~~. Minimum of $100/FTE will be used if FY00 calculations are < $100/FTE~~
See Section 1.4.2 for quotient, by work scope function

R1-D-048

- (G) ~~Premium~~ Overtime is based on FY00 actual cost of work performed overtime hours (OT) and regular (Reg) hours, as follows: OT/Reg.
See Section 1.4.2 for quotient, by work scope function

- (G) Material rates are broken down into two parts: 1-General Materials and 2-Additional Materials. General Materials are based on data supplied by Estimating Services. Additional Materials are based on FY00 ACWP data. See section 1.4 for materials rates.

- (G) Subcontractor dollars are based on existing subcontracts at time of this baseline and anticipated new subcontracts not currently in place.

- (VH) The existing pin trailers will be used to transport sea/land containers to the OSDF for unloading. No specialized truck will be purchased to support this activity

R1-D-494

- Transportation will provide MVOs to support Facilities Support scope of work, specifically Space Management and Facilities and Utilities activities

- Transportation will provide vehicles for field support currently assigned the Surveying Engineer and Utility Operations

R1-F01-001

- (G) Dollar amounts are unescalated

- (G) All calculations for manpower, subcontracts, materials, and ODCs are based on a 12-month year for 2002, 2003, 2004, 2005, 2006, 2007, 2008, and 2009

- (G) All overtime is planned overtime

- (G) Assume that all work activities are based on a 40-hour workweek

- (G) The basis of this estimate assumes the use of Remediation Schedule, and Execution 6 Scenario

- (G) Sales Tax @ 6% for all taxable items
- (G) Estimate is expressed in FY01 dollars
- (G) Estimate represents budget for the length of this charge number

1.2.2 Exclusions

- (G) Changes in reporting requirements (internal and external) that require redefining or resorting data, unnecessary training of personnel, the addition of personnel (FTEs), equipment or any new requirements for sorting and generating data not currently tracked in our recognized data base which is not specifically listed in the Fernald Closure Contract #DE-AC24-01OH20115 will not be covered in this charge number

- (VG) This charge number will not be required to cover any maintenance trade wages other than Industrial Mechanics. Material costs incurred by maintenance trades' personnel other than Industrial Mechanics will not be covered

- (G) Replacement costs for facilities or facility components.

- (G) Vehicle Purchases when the primary purpose of the vehicle is to act as a platform for monitoring or data gathering devices, which require specifically, modified or fabricated accessories not readily available from our recognized vehicle source. Our recognized vehicle sources are the GSA fleet sales or other "used vehicle" suppliers.
- (G) Costs associated with EPact compliance to purchase vehicles not readily available from our recognized source to meet "Alternative Fueled" vehicle purchase compliance.

- (G) Costs associated with fueling facility (Gas Boy) modifications to support dispensing or storing alternative fuels to comply with EPact, if the modifications exceed $10K in parts and labor

- (VG) Costs associated with waste products processing activities for garage waste streams. (Note: A Satellite Accumulation Area will be maintained in the Garage and the drums prepared as required for pickup.)

- (G) Fluor Fernald Fleet Insurance costs where additional liability insurance is purchased above the state minimum requirement for vehicle insurance.

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- (G) Computer purchases and upgrades
- (G) Does not include Fluor Fernald General Administrative Cost

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- Procurement of specialized equipment to perform a specific project function

1.2.3 Government-Furnished Equipment/Services

None

1.3 DRIVERS

The following projects from schedule 6 Scenario drive the activities of this department. Interfaces with these projects is driven by the manpower and Government owned, rented or leased equipment used by each one. This estimate is based on historical information, current levels of support and projected project needs. Since M&IS Transportation is a Level of Effort (LOE) activity and specific detail at the individual project is lacking in terms of the support group interfaces, this estimate has employed a level loading approach to identifying staff need in the out years.

- OU1 Complex D&D
- Plant 6/East Warehouse D&D
- Plant 1 Phase II D&D
- Admin Complex D&D
- Electrical Station D&D
- Silos 1-4, Superstructure, and RTS D&D
- OU3 other D&D
- Plant 5 D&D
- Maintenance Tank Farm D&D
- Multi Complex D&D
- Lab/Pilot Plant D&D
- Stand Alone D&D Components
- Mixed Waste Projects
- Low Level Waste Projects
- OSDF Project
- Aquifer/AWWT Project
- Environmental Monitoring
- ARASA Operations
- WPRAP Project Management
- Natural Resources Restoration
- Soil Remediation
- Stock Piles
- Silos Projects
- Waste Management
- Federal Motor Carrier Safety Regulations – FMCSR
- DOE Order 4330.B since 1994Ohio Revised Tax Code (used to receive a Fuel Tax rebate from state of Ohio)
- DOE Order 4330.B, Price Anderson Act, Public Law 42 U.S. C. 2014 et seq.

- 41CFR 109-38.5102-5; 109-38.9; 101-38.105
- 41CFR 109-26.501-52
- 41CFR 101-25.405; 109-38.502-50; 29CFR 1910-120
- Contract clauses section B and section C SOW
- Contract Clause Section H, O 350.1 Chg. 1
- FPMR 41CFR 101-38.204-4, DOE PMR 109-204-4)
- FPMR 41CFR101-38.903 and DOE PMR 109-38.903
- DOE PMR 109-381306)
- 41CFR 109-26.501-52
- 41CFR 109-38.5102-5; 109-38.9; 101-38.105
- Ohio EPA Permit to Operate (PTO) for the "Gas Boy" fuel dispensing facility
- DOE F 5484.3 DOE Order 231.1 chg. 2
- 49 CFR, Part 171, 177, 178, 350-399
- DOE Executive Order 13101
- Driver: 41CFR 102-34.155

1.4 SCOPE OF WORK

1.4.1 Management Support

1.4.1)1 Plan/Scope

This department provides the interface to manage DOE owned, rented or leased motor powered equipment and is focused via the Vehicle and Equipment Administration function. This equipment can be internal combustion, electric or alternative fuel powered. Records Management functions associated with maintaining and operating this resource is an included. Cradle to Grave oversight for this government provided resource resided in this department.

The following functions are part of this scope:

- Provide the "Fleet Manager" to oversee the operation of the Fluor Fernald DOE owned Fleet Vehicles and Equipment.
- Provide Point of Contact for the State and Federal Regulators for operation of the Fluor Fernald Motor Carrier
- Centralized focal point for closure actions associated with damage events on DOE owned, rented or leased vehicles and equipment to include interfacing with IR/HR and project management to ascertain HR-145 applicability and consistency
- Support of vehicle purchases in FY2001, FY2002, and FY2003.
- Support of heavy equipment purchases.

- Interfacing with Human Resources and Industrial Relations to resolve personnel issues.

- Interviewing and hiring new staff members, both wage and salary.

- Interfacing with the FAT&LC leadership to provide resolution to problems and concerns.

- Interfacing with DOE concerning activities related to this charge number

- Revise project baseline and certified costs and pricing data.

- Revised Project Baseline and Certified Costs and Pricing Data:
  Driver: Contract clauses section B and section C SOW
  Frequency: One time document with periodic review and update via Manpower Planning System (MPS)

- Semi-Annual Report on overtime use

- Semi-Annual Report on Overtime Use
  Frequency: Semi-annual to contribute to final document
  Driver: Contract Clause Section H, O 350.1 Chg. 1

- Purchase all fuel, track all fuel consumption and maintain the database associated with the "Gas Boy" fuel dispensing facility.
- Generation of internal and external reports and documents associated with fleet management.

Internal Reports and Documents

- Fleet Maintenance Records and Histories
  Frequency: Daily Database Maintenance

- Driver: DOE Order 4330.B since 1994
  Fuel Performance reports for Sales Tax documents
  Frequency: every 6 months

- Driver: Ohio Revised Tax Code (Used to receive a Fuel Tax rebate from the State of Ohio) (share resource above)
  Vehicle and Equipment Planned Maintenance Schedules
  Frequency: every 6 months

- Driver: DOE Order 4330.B, Price Anderson Act, Public Law 42 U.S.C. 2014 et seq. (used to assist projects utilizing government owned equipment to

schedule their work for maintenance evolutions also to avoid Price Anderson fines)
Vehicle and Equipment Utilization Report
Frequency: Monthly

- Driver: 41CFR 109-38.5102-5; 109-38.9; 101-38.105
  Review of new vehicle and equipment procurements
  Frequency: not to exceed 15 per fiscal year

- Drivers: 41CFR 109-26.501-52
  Vehicle and equipment operator check sheets
  Frequency: Daily

- Driver: 41 CFR 101-25.405; 109-38.502-50; 29CFR 1910-120
  Weekly and Monthly Project Progress Reports
  Frequency: Weekly and Monthly

External Reports and Documents; (to DOE)

- Report of Exempted Motor Vehicles
  Frequency: Annual (if required)

- Driver: FPMR 41CFR 101-38.204-4, DOE PMR 109-204-4)
  Agency Report of Motor Vehicles Data (Report SF-82)
  Frequency: Annually

- Driver: FPMR 41CFR101-38.903 and DOE PMR 109-38.903
  Motor Vehicle Annual Forecast
  Frequency: Annual

- Driver: (DOE PMR 109-381306)
  Monthly Mileage Report
  Frequency: Monthly (Requested to add/continue by DOE)
  Vehicle and Equipment "Purchase Justification" documents

- Driver: 41CFR 109-26.501-52 (.1 FTE/yr Frequency: as needed, this scope includes purchasing 45 vehicles that)
  Fleet Utilization Report
  Frequency: Annual

- Driver: 41CFR 109-38.5102-5; 109-38.9; 101-38.105
  Fuel Usage & Analysis Report (Summary of daily amounts of fuel oil combusted and fuel analysis)
  Frequency: Quarterly

- Driver: Ohio EPA Permit to Operate (PTO) for the "Gas Boy" fuel dispensing facility
  Individual Accident/Incident Report
  Frequency: Monthly

- Driver: (DOE F 5484.3) DOE Order 231.1 chg. 2
  Generation and Tracking of Motor Carrier Reports (State of Ohio and Federal Requirement)
  Frequency: Daily

- Driver: 49 CFR, Part 171, 177, 178, 350-399
  Recycle Tire and Oil Consumption Report
  Frequency: Annual

- Driver: DOE Executive Order 13101
  Destroyed/Removed DOE License Plates Notification
  Frequency: As required (requested by DOE) 41CFR 102-34.155

1.4.1)2 Quantification

(See Quantification Table)

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~~Premium~~ Overtime
~~Old 7GAT1 - related .0009~~
~~Old 7GAT2 - related .1249~~
~~Old 7GAT3 - related .0033~~
~~Average = .0429 x reg hours~~

1.4.1)3 ODC's

Based on actuals of charge #'s 7GAT1, 7GAT2, 7GAT3

ODC 600 - None
ODC 700 - $363/FTE
ODC Travel - None

1.4.1)4 Subcontracts/Materials

Subcontracts: NONE

Materials:
General Materials: $594/FTE

Additional Materials:
Materials/FTE $479/FTE (Garage Materials/Supplies, Safety Clothing & Equipment, etc.)
Materials/Year See Below:

The following table lists the maximum fuel expenditure for this charge number based on price per gallon caps of $2.00 for 87 octane gasoline and fossil diesel fuels. Also included is our projected usage of 100% Bio-Diesel at a $2.50 cap. The Bio-diesel fuel will be blender by the vendor to a 20% mix with fossil diesel.

Fuel Type	Gallons	Maximum Annual Cost
87 octane Gasoline	45,000	$90,000.00 @ $2.00/gal
Fossil Diesel Fuel	30,000	$60,000.00 @ $2.00/gal
Bio-diesel (B100) Fuel	6,000	$15,000.00 @ $2.50/gal

Manpower associated with the Gas Boy Facility, 1 FTE per year

Fuel consumed at the "Gas Boy" will be based on schedule 6 scenario needs not to exceed these caps per year.

The costs to purchase 45 vehicles as supplemental and/or replacement units in the Fluor Fernald/DOE owned fleet. The GSA sales will be the mechanism to provide these vehicles and the current alternative fuels issues will not apply to the FEMP. The maximum price per vehicle will be $15K each.

Fiscal Year	No. of Vehicles	Annual Cost	Cumulative Cost
2001	20	$300K	$300K
2002	15	$225K	$525K
2003	10	$150K	$675K

The following table represents the projects Heavy Equipment needs to be funded by this charge number.

Fiscal Year	Type of Equipment	Cost
FY-2002	Salt Truck	$50,000.00
Fy-2003	Maintenance Service Truck	$80,000.00
FY-2002	Load All Extended reach plane loader	$85,000.00
FY-2004	Geoprobe equipped truck	$95,000.00
FY-2003	15' "Bat Wing" bus hog	$20,000.00
FY-2002	Small Grouters to support Well Maintenance	$10,000.00
FY-2003	Salt Spreader boxes (2)	$16,000.00

1.4.2 Vehicle Garage

1.4.2)1 Plan/Scope

Garage Management and Supervision will be responsible for the following:

- Directing the day to day activities of the Industrial Mechanics (IM).
- Scheduling repair evolutions to meet the needs of the projects.
- Interfacing with IR and FAT&LC when disciplinary issues are identified.
- Interfacing with vendors to assure correct parts purchases and to provide technical assistance in critical repair evolutions.
- Provide customer interface focal point.
- Oversee the generation of reports associated with Fleet maintenance histories to assure the quality of the database.
- Oversee the generation of department reports (Vehicle Administration) for quality and consistency.
- Utilization of the P Card to purchase parts and supplies.

The wages for clerical staff (clerk) is included in this charge number. The following duties are:

- Generation of reports and entering data in the TABWARE database.
- Monitoring and maintaining the Garage overtime list.
- Utilization of the P Card to purchase parts and supplies.
- Filing and archiving records associated with Garage activities.

This group performs "Planned" and "Corrective" maintenance for government owned, leased or rented vehicles and equipment. The scope of the Industrial Mechanic covers drive train components, frame and chassis service, brake systems maintenance, painting, non-certified welding, and vehicle related accessory maintenance and tire replacement. (1 Manager, 2 Supervisors, 1 Clerk FTE/yr)

These service provided in line with the Vehicle Garage scope include:

- Vehicle and equipment filter changes

- Engine oil and filter changes
- Jump Starts
- Consumable component replacement (i.e. wiper blades, fan belts and hoses)
- Electrical component replacement (wiper motors, heater motors, starters, alternators lights and bulbs)
- Tire replacement
- Glass replacement
- Brake component replacement/repair
- Fuel pump or system component replacement
- Body work
- Wheel Alignment and balancing
- Diagnostic Testing
- Transmission filter and fluid replacement
- Differential lubrication replacement/addition
- Chassis lubrication
- Drive train lubricant
- Engine coolant and cooling system repair
- Air conditioner repair and refrigerant additions
- Shocks, mufflers and exhaust system replacement
- Hydraulic system repair lubricant replacement/addition
- Internal (driver comfort) accessory maintenance
- Engine, drive train and chassis repairs
- Replacement of wooden flooring components on shipping trailers

- Non-certified welding on vehicles and motorized equipment
- This charge number provides $180K for major component or equipment repairs that may occur during the execution of schedule 6 scenario.
- Costs to maintain the Garage Satellite Accumulation Area (SAA) to site standards by preparing full drums from this area for transfer to Waste Generator Services division
- This charge covers "NP" activities for Industrial Mechanics. The NP activities include: low level waste rental equipment, power outages, shop clean up, union business, garage truck checks, bicycle repair, trailer inspection, stocking inventory, and push lawn mower repairs.
- Provide for 1st shift coverage 6 days per week (wages of Industrial mechanics) associated with the current Mutual Aid agreements. The additional funding to complete the 24/7 ERT Staffing requirements is derived from another source.
- Freight, misc. shipping charges and sales tax associated with the purchase of materials, parts and supplies associated with this activity are covered by this charge number
- Wages for all shop 45 wage personnel performing work within the scope of this charge number
- This charge number provides maintenance service for all DOE owned, rented or leased vehicles and equipment. (Derived from DE-AC24-01OH20115; sec. J; Attachment 4)

The list of vehicle and equipment types currently maintained under this charge number is as follows:

This list represents a snap shot of the current fleet configuration in FY-2001.

Equipment Type	Active Units	Inactive Units
General Purpose Vehicles	67	3
Special Purpose Vehicles*	44	2
Man lifts *	26	2
Fork Trucks*	60	1
Motor Powered Generators *	81	5
Electric Carts*	9	0
Plane Loader Fork Trucks*	7	0
Powered Sweepers*	1	0
Rubber Tired End Loaders	2	0
Gators	6	0
Trailers	37	0
Mobile Cranes*	3	1
Tuggers	6	0
Hand Stackers	15	0
Tracked Loader	1	0
Rubber Tired Backhoes	2	0
Motor Powered Air Compressors*	17	1
Motor Powered Pumps*	20	1
Motor Powered Saws	13	0
Road Graders	1	0
Truck Loading Platform	1	0
Motor Powered Welders*	10	0
Motor Powered Augers/spreaders	6	0
Farm Tractors	3	0
Static Rollers	1	0
Rubber Tired Loaders	2	0
Skid Steer Loaders	3	0
Lawn Mowers	25	0
Battery Chargers*	2	0
Sprayers*	8	2
Motor Powered Fans	4	0
Bulldozers	1	0
Yard Tractors	2	0
Track Hoes	4	0
Floor Scrubbers*	22	0
Winch	1	0
Hydra-Seeders	2	0
Miscellaneous Skid Steer Attachments	14	0
Track Hoe Grappler Attachment	2	0
Farm implements	5	0
Miscellaneous Lawn Equipment	12	0
Metal Shear Attachments	4	0
Total Units 569	552	17

* Indicates equipment where some maintenance evolutions are performed by crafts persons other than Industrial Mechanics (refer to the work excluded section) These costs are captured in M&IS Facilities Maintenance.

Note: The equipment listed in the inactive status is available for future use by the Projects as the needs are identified. Routine maintenance activities on these units have been suspended at this time.

- This charge number includes the costs for labor, parts and supplies to complete planned and corrective maintenance evolutions for DOE owned, rented or leased vehicles and equipment.

1.4.2)2 Quantification

(See Quantification Table)

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~~Premium~~ Overtime
~~Old 7GAT3 - related .0033~~
~~Old 7GAT5 - related .0175~~
~~Average = .0104 x reg hours~~

1.4.2)3 ODCs

Based on actuals of charge #'s 7GAT1, 7GAT2, 7GAT3

ODC 600 - None
ODC 700 - $363/FTE
ODC Travel – None

1.4.2)4 Subcontracts/Materials

Subcontracts: NONE

Materials:
General Materials: $594/FTE

Additional Materials:
Materials/FTE $479/FTE (Garage Materials/Supplies, Safety Clothing & Equipment, etc.)

Materials/Year None

1.4.3 Transportation Deliveries

1.4.3)1 Plan/Scope

This charge number includes the wages for the Transportation deliveries Manager and Supervisors. These activities include:

- Establishing work schedules to meet the needs of the Projects.

- Interfacing with IR and HR to resolve personnel issues
- Provide the focal point for resolution of FAT&LC related issues
- Provide customer interface for Transportation Deliveries
- Oversee the generation of the Motor Carrier Records produced by the Drivers
- Interface with the Garage to assure equipment and vehicle availability
- Conduct daily safety meeting in the form of pre and post job briefings

A detailed account of the Transportation Deliveries duties is:

- Consumable items and "in house" stores supplies from Receiving to Project locations
- Delivery of parts and supplies to the Fluor Fernald Garage from off site vendor
- Delivery of materials and supplies from off site vendors to Projects or Field activities if the trip can be made without an over night stay
- Delivery of bottled gas (P10, LPG and welding supplies) from receiving/stores to Projects or field activities
- Pick-up and Delivery of Federal Express packages (on-site)
- Transport x-rays photographs to and from local hospitals for Flour Fernald Medical Dept.
- Movement of excess materials and supplies to Property staging areas (on and off site)
- Delivery of non-consumable items from receiving to requestor
- Provide transportation for "injured" team members
- Provide Fluor Fernald Bus Service
- Provide Material Handling support for Fluor Fernald warehouse operations
- Movement of NON-HAZMAT materials and supplies on the Public Highways

1.4.3)2 Quantification

(See Quantification Table)

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~~Premium~~ Overtime
~~Old 7GAT3 - related .0033~~
~~Old 7GAT5 - related .0175~~
~~Average = .0104 x reg hours~~ Snow and Ice Removal – for 1.5x MVO 1.15% and Transportation Laborer 2.04% at 2x MVO .29% and Transportation Laborer .52%

1.4.3)3 ODC

Based on actuals of charge #'s 7GAT3, 7GAT5

ODC 600 - None
ODC 700 - $363/FTE
ODC Travel - None

1.4.3)4 Subcontracts/Materials

Subcontracts: NONE

Materials:

General Materials: $594/FTE

Additional Materials:
Materials/FTE $479/FTE (Garage Materials/Supplies, Safety Clothing and Equipment, etc.)
Materials/Year None

1.4.4 Heavy Equipment Support

1.4.4)1 Plan/Scope

This charge number provides for the wages of the HEO salary management staff. These duties include:

- Creating daily work schedules and operator assignments.
- Provide the focal point for resolving IR and HR issues associated with the activity
- Interfacing with customers and field activities to assure work completion and compliance

- Provide customer service point of contact.
- Oversee completion of records and daily logs associated with this activity
- Provide Heavy Equipment support for mobile crane operations where Fluor Fernald projects are requesting the service

For example:

- Repairs initiated by in house maintenance on utilities and structures (existing systems or structures maintenance)
- Replacement of pumps, well heads and similar existing facility items
- Utility Excavation
- Movement of excess materials and supplies to and from the dedicated Flour Fernald warehouses or staging areas
- Dust Abatement for non-project areas, roads and other surfaces
- Snow and Ice Abatement for Roadways, parking lots and storage pads

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1.4.4)2 Quantification/~~Premium~~ Overtime

(See Quantification Table)

~~Premium~~ Overtime
~~Old 7GAT3 - related .0033~~
~~Old 7GAT5 - related .0175~~
~~Average = .0104 x reg hours~~ ~~Snow and Ice Removal – for 1.5x HEO 2.03%, 2.04% at 2x HEO .50%~~

1.4.4)3 ODC

Based on actuals of charge #'s ABAL2

ODC 600 - None
ODC 700 - $363/FTE
ODC Travel - None

1.4.4)4 Subcontracts/Materials

Subcontracts: NONE

Materials:
General Materials: $594/FTE

Additional Materials:
Materials/FTE $479/FTE (Garage Materials/Supplies, Safety Clothing & Equipment, etc.)
Materials/Year $15,000/year (Road Salt)

Quantification Table Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)			
Activity	**Sub-Activity**	**Calc Type**	**Calculations**
1.4.1)2 Management Support			
Provide the Fleet Manager to oversee the operation of the Fluor Fernald DOE owned Fleet Vehicles and Equipment.	General Managerial Responsibility	HD, PJ	.125 Proj. Manager
	Provide Point of Contact for the State and Federal Regulators for operation of the Fluor Fernald Motor Carrier.	HD, PJ	.1 Proj. Manager
	Centralized focal point for closure actions associated with damage events on DOE owned, rented, or leased vehicles and equipment. This includes interfacing with IR/HR and project management to ascertain HR-145 applicability and consistency.	HD, PJ	.1 Proj. Manager
	Support of vehicle purchases (2001 - 20, 2002 - 15, 2003 - 10)	HD, PJ	.1 Proj. Manager
	Support of heavy equipment purchases	HD, PJ	.1 Proj. Manager
	Interfacing with Human Resources/Industrial Relations	HD, PJ	.1 Proj. Manager
	Interviewing and hiring new staff	HD, PJ	.1 Proj. Manager
	Interfacing with DOE	HD, PJ	.1 Proj. Manager
	Interfacing with FAT&LC leadership to resolve issues/concerns	HD, PJ	.1 Proj. Manager
	Revise Project Baseline and Certified Costs and Pricing Data	HD, PJ	.1 Proj. Manager
	Semi-Annual Report on Overtime Use	HD, PJ	.1 Proj. Manager
Purchase all fuel, track all fuel consumption and maintain the database associated with the Gas Boy" fuel dispensing facility.			
Complete Internal Reports/Documents	Fleet Maintenance Records and Histories – requires daily database maintenance. Fuel Performance reports for Sales Tax documents	HD, PJ	.08 FTE Supervisor/yr. .25 FTE Records Specialist/yr. .07 FTE Clerk/yr.

Quantification Table

Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity	Sub-Activity	Calc Type	Calculations
	Vehicle and Equipment Planned Maintenance Schedules (Semi-Annual Report)	HD, PJ	.08 FTE Supervisor/yr. .25 FTE Rec. Specialist/yr.
	Monthly Vehicle and Equipment Utilization Report	HD, PJ	.08 FTE supervisor/yr. .25 FTE Rec. Specialist/yr.
	Review of new vehicle and equipment procurements	HD, PJ	.08FTE Supervisor/yr.
	Vehicle and equipment operator check sheets	HD, PJ	.07 FTE Clerk/yr.
	Weekly/Monthly Project Progress Reports	HD, PJ	.07 FTE Clerk/yr. .08 FTE Supervisor/yr.
	Report of Exempted Motor Vehicles	HD, PJ	.08 FTE Supervisor/yr. .07 FTE Clerk/yr.
	Agency Report of Motor Vehicles Data	HD, PJ	.08 FTE Supervisor/yr. .07 FTE Clerk/yr.
1.4.1)2 Management Support (Continued)			
Complete External Reports/Documents (Continued)	Motor Vehicle Annual Forecast	HD, PJ	.08 FTE Supervisor/yr. .07 FTE Clerk/yr.
	Monthly mileage Report	HD, PJ	.25 FTE Rec. Specialist/yr.
	Fleet Utilization Report	HD, PJ	.08 FTE Supervisor/yr. .07 Clerk/yr.
	Fuel Usage & Analysis Report	HD, PJ	.08 FTE Supervisor/yr. .07 FTE Clerk/yr.
	Individual Accident/Incident Report	HD, PJ	.08 FTE Supervisor/yr. .07 FTE Clerk/yr.
	Generation and Tracking of Motor Carrier Reports	HD, PJ	.08 FTE Supervisor/yr. .07 FTE Clerk/yr.
	Recycle Tire and Oil consumption Report	HD, PJ	.07 FTE Clerk/yr.

Quantification Table Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)			
Activity	**Sub-Activity**	**Calc Type**	**Calculations**
	Destroyed/Removed DOE License Plates Notification	HD, PJ	.07 FTE Clerk/yr.
1.4.2)2 Vehicle Repair Garage			
Garage Management/Supervision	Directing the day to day activities of the Industrial Mechanics	HD, PJ	.125 - Manager .4 Supervisor
	Scheduling repair evolutions to meet the needs of the projects	HD, PJ	.125 - Manager .4 Supervisor
	Interfacing with IR and FAT&LC when disciplinary issues are identified.	HD, PJ	.125 - Manager .4 Supervisor
	Interfacing with vendors to assure correct parts purchases and to provide technical assistance in critical repair evolutions	HD, PJ	.125 - Manager .4 Supervisor
	Provide customer interface focal point	HD, PJ	.125 - Manager .4 Supervisor
	Oversee the generation of reports associated with Fleet maintenance histories	HD, PJ	.125 - Manager
	Oversee the generation of Vehicle Administration reports	HD, PJ	.125 - Manager
	Utilize the P Card to purchase parts and supplies	HD, PJ	.125 - Manager .4 Supervisor
Clerical Staff	Generation of reports and entering data in the TABWARE database	HD, PJ	.25 - Clerk
	Monitoring and maintaining the Garage overtime list	HD, PJ	.25 - Clerk
	Utilize the P Card to purchase parts and supplies	HD, PJ	.25 - Clerk
	File and archive records associated with Garage activities	HD, PJ	.25 Clerk
Maintain Garage Satellite Accumulation Area		HD, PJ	.1 Industrial Mechanic/yr. .1 Clerk/yr.

Quantification Table

Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity	Sub-Activity	Calc Type	Calculations
1.4.2)2 Vehicle Repair Garage (Continued)			
"NP" activities	Low Level Waste Rental Equipment, Power Outages, Shop Clean up, Union Business; Garage Truck Checks, Bicycle Repair, Trailer Inspection Stock Inventory, Push Lawn Mower Repairs	HD	3,936.2 hrs/yr.
Perform Corrective Maintenance on Equipment		HD	12,155 hrs./yr. (6.7 FTE)
Perform Planned Maintenance for Equipment	Cars, Trucks, Vans, Semi-Annual	HD	Every 6 months 1 IM X 1.5 hours X 90 units = 270 hrs/yr.
	Boom on a Boom Truck	HD	Quarterly 1 IM X 2 hours X 2 units = 16 hrs./yr.
	Compressors - Reciprocating	HD	Annually 1 IM X 6 hours X 1 units = 6 hr./yr.
	Gasoline Air Cooled, Engine Service	HD	Annually 1 Industrial Mechanic (IM) X 2 hours X 10 units = 20 hr./yr.
	Mowers	HD	Annually 1 IM x 4 hrs. x 13 units = 52 hrs./yr.
	Diesel Compressors	HD	Annually 1 IM x 6 hrs. x 36 units = 216 hrs./yr.
	Gasoline Generators	HD	Annually 1 IM x 4 hrs. x 2 units = 8 hrs./yr.
	Diesel Generators	HD	Annually 1 IM x 8 hrs. 19 units = 152 hrs./yr.

Quantification Table

Historical Data = (HD) Industry Standard = (IS) Composite of HD & IS = (Comp) Professional Judgement = (PJ)

Activity	Sub-Activity	Calc Type	Calculations
	Diesel Water Pumps	HD	Annually 1 IM x 8 hrs. x 3 units = 24 hrs./yr.
	Gasoline Stationary Engines	HD	Annually 1 IM x 3 hrs. x 2 units = 6 hrs./yr.
	Tractor Service	HD	Annually 1 IM x 4 hrs. x 2 units = 8 hrs./yr.
	Tractor Service	HD	Every 6 months 1 IM x 4 hrs. x 1 units = 8 hrs./yr.
	Diesel Water Cooled, Engine Service	HD	Annually 1 IM x 3 hrs. x 3 units = 9 hrs./yr.
	Diesel Water Cooled, Engine Service	HD	Semi Annually 1 IM x 3 hrs. x 2 units = 12 hrs./yr.
1.4.2)2 Vehicle Repair Garage (Continued)			
Perform Planned Maintenance for Equipment (Continued)	Diesel Generators	HD	Annually 1 IM x 8 hrs. x 17 units = 136 hrs./yr.
	Gasoline Air Cooled, Engine Service	HD	Every 6 months 1 IM x 1 hrs. x 2 units = 4 hrs./yr.
	Gasoline Generators	HD	Annually 1 IM x 4 hrs. x 1 unit = 4 hrs./yr.
	Diesel Water Pumps	HD	Annually 1 IM x 8 hrs. x 2 units = 16 hrs./yr.

Quantification Table

Historical Data = (HD); Industry Standard = (IS); Composite of HD & IS = (Comp); Professional Judgement = (PJ)

Activity	Sub-Activity	Calc Type	Calculations
	Gasoline, Stationary Engines	HD	Annually 1 IM x 3 hrs. x 2 units = 6 hrs./yr.
	Diesel Water Cooled, Engine Service	HD	Annually 1 IM x 3 hrs. x 2 units = 6 hrs./yr.
	Diesel Compressors	HD	Annually 1 IM x 6 hrs. x 1 units = 6 hrs./yr.
	EOC Generator	HD	Monthly 1 IM x 2 hrs. x 1 units = 24 hrs./yr.
	Two Cycle Engine	HD	Annually 1 IM x 2 hrs. x 4 units = 8 hrs./yr.
	Fork Trucks and Tugs, Semi-Annual	HD	Every 6 months 1 IM x 3 hrs. x 58 units = 348 hrs./yr.
	Battery Powered Scissors & Boom Manlifts	HD	Quarterly 1 IM x 3 hrs. x1 units = 12 hrs./yr.
	Gasoline and Diesel Scissors & Boom Manlifts	HD	Quarterly 1 IM x 3 hrs. x 72 units = 288 hrs./yr.
	500 HP Locomotive	HD	Semi Annually 1 IM x 16 hrs. x 3 units = 96 hrs./yr.
	Inspection and Maintenance of Trailers	HD	Semi Annually 1 IM x 3 hrs. x 5 units = 30 hrs./yr.
	Inspection and Maintenance of Vehicles	HD	Semi Annually 1 IM x 3 hrs. x 20 units = 120 hrs./yr.

Quantification Table

Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity	Sub-Activity	Calc Type	Calculations
	Preventive Maintenance Checks on /Pumpers	HD	Annually 1 IM x 2.5 hrs. x 2 units = 120 hrs./yr.
1.4.2)2 Vehicle Repair Garage (Continued)			
Perform Planned Maintenance for Equipment (Continued)	Shears	HD	Quarterly 1 IM x 4 hrs. x 2 units = 32 hrs./yr.
	Inspection of Trailers and Dollies	HD	Annually 1 IM x 2 hrs. x 20 units = 40 hrs./yr.
	Trailers over the Road	HD	Annually 1 IM x 2.5 hrs. x 10 units = 25 hrs./yr.
	Trucks (1 Ton and Over)	HD	Annually 1 IM x 6 hrs. x 10 unit = 60 hrs/yr.
	Electric Carts	HD	Semi Annually 1 IM x 1.5 IM hrs. x 9 units = 27 hrs.
	Stackers and Tuggers, Electric	HD	Annually 1 IM x 3 hrs. x 14 units = 42 hrs./yr.
1.4.3)2 Deliveries			
Deliveries Management/Supervision	Establishing work schedules to meet the needs of the Projects		.2 - Manager .33 - Supervisor
	Interfacing with IR and HR to resolve personnel issues		.2 - Manager
	Provide the focal point for resolution of FAT&LC related issues		.2 - Manager .33 - Supervisor
	Provide customer interface for Transportation Deliveries		.2 - Manager .33 - Supervisor

Quantification Table Historical Data = (HD) / Industry Standard = (IS) / Composite of HD & IS = (Comp) / Professional Judgement = (PJ)			
Activity	**Sub-Activity**	**Calc Type**	**Calculations**
	Oversee the generation of the Motor Carrier Records produced by the Drivers	PJ	.2 - Manager .33 - Supervisor
	Interface with the Garage to assure equipment and vehicle availability.	PJ	.33 - Supervisor
	Conduct daily safety meeting in the form of pre and post job briefings.	PJ	.33 - Supervisor
Consumable items and "in house" stores supplies from Receiving to Project locations		HD, PJ	Daily 1 MVO + 2 laborers 2000 hr./yr. - MVO 4000 hr./yr. - Laborers
Delivery of parts and supplies to the Fluor Fernald Garage from off site vendor		HD, PJ	1 MVO x 2 hrs. x 4/wk = 8 hrs./wk. (MVO - 400 hrs./yr.)
Delivery of materials and supplies from off site vendors to Projects or Field activities if the trip can be made without an overnight stay.		HD, PJ	1 MVO x 30 hrs/month = 360 hrs./yr.
1.4.3)2 Deliveries (Continued)			
Delivery of bottled gas (P10, LPG and welding supplies) from receiving/stores to Projects or field activities		HD, PJ	1 MVO + 2 Laborers, 2/week 240 hrs/yr. - MVO 480 hrs./yr. - Laborer
Pick-up and Delivery of Federal Express packages (on site)		HD, PJ	3hr./day (4 days/wk) 600 hrs/yr - 1 MVO
Transport x-rays photographs to and from local hospitals for Flour Fernald Medical Dept.		HD, PJ	2 times/wk - 3hrs. MVO - 300 hr./yr.
Movement of excess materials and supplies to Property staging areas (on and off site)		HD, PJ	1500 hrs/yr - MVO 300 hrs/yr. - Laborers
Delivery of non-consumable items from receiving to requestor		HD, PJ	1000 hrs./yr - MVO 2000 hrs/yr. - Laborer

Quantification Table Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)			
Activity	**Sub-Activity**	**Calc Type**	**Calculations**
Provide transportation for "injured" team members		HD, PJ	50 days per year (10 hour day) 1MVO
Provide Fluor Fernald Bus Service		HD	4 days (10 hr. day) 3 MVOs x 10hr. X 4 days = 120 hrs./wk 6000 MVO hrs/yr.
Provide Material Handling support for Fluor Fernald warehouse operations		HD	4 days (10 hr. day) 3 MVOs x 10hr. X 4 days = 120 hrs./wk
Movement of NON-HAZMAT C70materials and supplies on the Public Highways		HD	4 days (10 hr. day) 2 MVOs + 4 laborers Private Motor Carrier - 4,000 hrs/yr. Laborers, 8,000 hr./yr.
1.4.4)2 Heavy Equipment			
Supervision	Create daily work schedules and operator assignments	HD, PJ	.2 Supervision
	Provide the focal point for resolving IR and HR issues associated with the activity	HD, PJ	.2 Supervision
	Interfacing with customers and field activities to assure work completion and compliance	HD, PJ	.2 Supervision
	Provide customer service point of contact	HD, PJ	.2 Supervision
	Oversee completion of records and daily logs associated with this activity.	HD, PJ	.2 Supervision
Mobile Crane Support		HD, PJ	1/wk - 2HEOs 1,000 hrs./yr. HEOs
Utility Excavation		HD, PJ	2/month - 2HEOs 500 hrs/yr HEO
Excess Property Movement		HD, PJ	2/wk - 2 HEOs/1 MVO 2,000 hrs/yr. HEO 1,000 hrs/yr. PMC

Quantification Table

Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity	Sub-Activity	Calc Type	Calculations
1.4.4)2 Heavy Equipment (Continued)			
Snow and Ice Abatement		HD, PJ	2 HEOs/4 MVOs, 4 Laborers 250 hours/yr.
Dust Abatement		HD, PJ	seasonal 4 day/wk 2 MVOs 2000 hrs/yr. MVO
Grass Mowing with Bush Hog		HD, PJ	2000, hr./yr. MVO

R1-F01-003

SECTION 2

2.0 MANPOWER PLANS

Manpower Planning Sheet (CR2)

MPS # 1AB02 TRANSPORTATION

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
202 PLANT 5 D&D	10/02/2000	08/28/2001		xxx xxx xxx xx					
203 PLANT 6 D&D	10/02/2000	04/09/2002		xxx xxx xxx xxx	xxx xxx x				
204 BUILDING 64/65 D&D	07/01/2004	09/28/2004					xxx		
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
210 OU1 COMPLEX D&D	12/03/2004	07/29/2005						x xxx xxx x	
211 OU4 SILOS SUPERSTRUCTURE D&D	10/02/2006	10/31/2007							
212 OFFICE TRAILER D&D	10/03/2005	04/03/2007							xxx xxx xxx xxx
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	
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							
632 Area 5: Excavation	10/03/2005	03/31/2008							xxx xxx xxx xxx
638 Natural Resources Restoration	10/01/2003	12/31/2009					xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx
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	

202	Maintenance	Project Support Manager	147.50	7	7	7	7	5	5	5	5	5	5	5	5	5	5	5	5	4	4	4	4	4	4	4	4
	Information Management	Information Records Rep.	24.40	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
	Administration	Clerks	32.00	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	0	0	0	0

Manpower Planning Sheet (CR2)

MPS # 1AB02 TRANSPORTATION

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
202 PLANT 5 D&D	10/02/2000	08/28/2001					
203 PLANT 6 D&D	10/02/2000	04/09/2002					
204 BUILDING 64/65 D&D	07/01/2004	09/28/2004					
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					
210 OU1 COMPLEX D&D	12/03/2004	07/29/2005					
211 OU4 SILOS SUPERSTRUCTURE D&D	10/02/2006	10/31/2007	xxx xxx xxx xxx	x			
212 OFFICE TRAILER D&D	10/03/2005	04/03/2007	xxx xxx x				
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					
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			
632 Area 5: Excavation	10/03/2005	03/31/2008	xxx xxx xxx xxx	xxx xxx			
638 Natural Resources Restoration	10/01/2003	12/31/2009	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx 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					

Maintenance	Project Support Manager		4	3	3	3	2	2	2	2	1.5	1.5	1.5	1.5	0.5	0	0	0	0	0	0	0
Information Management	Information Records Rep.		0.5	0.5	0.5	0.5	0.1	0.1	0.1	0.1	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

Manpower Planning Sheet (CR2)

MPS # 1AB02 TRANSPORTATION

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
Craft Labor	Industrial Mechanic		241.00	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	6	6	6	6	6	6	6	6
Transportation Labor	Heavy Equipment Operator		78.00	5	5	5	5	5	5	5	5	4	4	4	4	3	3	3	3	3	3	2	2	0	0	0	0
Transportation Labor	Private Motor Carrier Operator		40.00	4	4	4	4	4	4	4	4	2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0
Transportation Labor	Motor Vehicle Operator		294.00	17	17	17	17	17	17	17	17	12	12	12	12	10	10	10	10	8	8	8	8	4	4	4	4
Transportation Labor	Transportation Laborer		225.00	11	11	11	11	10	10	10	10	8	8	8	8	7	7	7	7	6	6	6	6	6	6	6	6
Environmental Safety & H	Safety Tech.		8.80	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Environmental Safety & H	Rad Tech		32.00	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	1	1	1	1	1	1	1	1	1	1
Maintenance	Project Support Rep.		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
	Sheet Totals:		1136.70	58.50	58.50	58.50	58.50	55.50	55.50	55.50	55.50	45.50	45.50	45.50	45.50	37.50	37.50	37.50	37.50	30.10	30.10	29.10	29.10	21.60	21.60	21.60	21.60

Manpower Planning Sheet (CR2)

MPS # 1AB02 TRANSPORTATION

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
Craft Labor	Industrial Mechanic	6	6	6	6	5	5	5	5	3	3	3	3	1	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	Private Motor Carrier 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	4	2	2	2	2	2	2	2	1	1	1	1	0	0	0	0	0	0	0	0
Transportation Labor	Transportation Laborer	5	5	5	5	2	2	2	2	1	1	1	1	1	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
Environmental Safety & Health	Rad Tech	0.5	0.5	0.5	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance	Project Support Rep.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sheet Totals:	20.00	17.00	17.00	17.00	11.10	11.10	11.10	11.10	6.50	6.50	6.50	6.50	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00

SECTION 2

3.0 ESTIMATE

ASVC2

TRANSPORTATION

09/07/2001
12:09 PM

PBS: 01
WBS: 1.1.A.B
CTRL ACCT: ASVC
CHARGE NO: ASVC2
COMMENT NO: FO1-031

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
**** STATED IN FY01 DOLLARS ****
(1 FTE EQUALS 1747 HOURS)

DATE: 13 MAY 2001
PROJECT MGR: R. NICHOLS
CAM: R. NICHOLS
PREPARED BY: L. HAMPSHIRE
ALL FISCAL YEARS

Resource: CLERKS **CLERKS** **EOC:** LABOR
Res Dept: **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	3,494.0	3,494.0	1,747.0	1,747.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	2,904.0	6,398.0	9,892.0	11,639.0	13,386.0	13,386.0	13,386.0	13,386.0	13,386.0	13,386.0
Yr Total Cost:	69,377	87,861	93,062	49,274	52,195	0	0	0	0	0
Cum Total Cost:	69,377	157,237	250,299	299,574	351,769	351,769	351,769	351,769	351,769	351,769

Resource: HEOOPR **HEAVY EQUIP OPERATOR** **EOC:** LABOR
Res Dept: **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:	7,438.2	8,949.1	7,177.0	5,386.4	4,425.6	0.0	0.0	0.0	0.0	0.0
Cum Hours:	7,438.2	16,387.3	23,564.3	28,950.7	33,376.3	33,376.3	33,376.3	33,376.3	33,376.3	33,376.3
Yr Total Cost:	237,366	300,596	255,711	203,299	176,637	0	0	0	0	0
Cum Total Cost:	237,366	537,963	793,674	996,973	1,173,610	1,173,610	1,173,610	1,173,610	1,173,610	1,173,610

Resource: INDMEC **INDUSTRIAL MECHANIC** **EOC:** LABOR
Res Dept: **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:	12,342.0	14,849.5	14,849.5	14,849.5	10,482.0	10,482.0	10,482.0	8,735.0	5,241.0	421.0
Cum Hours:	12,342.0	27,191.5	42,041.0	56,890.5	67,372.5	77,854.5	88,336.5	97,071.5	102,312.5	102,733.5
Yr Total Cost:	388,279	491,729	520,839	551,548	412,407	440,612	477,658	419,547	279,741	23,164
Cum Total Cost:	388,279	880,008	1,400,847	1,952,395	2,364,803	2,805,414	3,283,073	3,702,620	3,982,361	4,005,524

Resource: INRREP **INFO RECORDS REP** **EOC:** LABOR
Res Dept: **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	873.5	174.7	0.0	0.0
Cum Hours:	1,452.0	3,199.0	4,946.0	6,693.0	8,440.0	9,313.5	10,187.0	10,361.7	10,361.7	10,361.7
Yr Total Cost:	43,095	54,577	57,808	61,217	64,846	34,640	37,553	7,916	0	0
Cum Total Cost:	43,095	97,673	155,481	216,698	281,543	316,183	353,736	361,652	361,652	361,652

INCLUDES ESCALATION COSTS

Resource: MAT300 **MATERIAL OBJCLASS300** **EOC:** MATERIAL
Res Dept: 950 **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:	654,768.0	767,869.0	641,423.0	448,413.0	476,031.0	355,082.0	261,603.0	199,769.0	134,969.0	11,967.0
Cum Units:	654,768.0	1,422,637.0	2,064,060.0	2,512,473.0	2,988,504.0	3,343,586.0	3,605,189.0	3,804,958.0	3,939,927.0	3,951,894.0
Yr Total Cost:	654,768	788,601	676,527	486,197	530,594	407,259	308,745	242,606	168,664	15,388
Cum Total Cost:	654,768	1,443,369	2,119,897	2,606,094	3,136,688	3,543,947	3,852,693	4,095,299	4,263,963	4,279,351

Resource: MVOOPR **MOTOR VEHICLE OPER** **EOC:** LABOR
Res Dept: **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:	25,061.4	30,152.6	21,257.0	17,716.0	14,171.5	7,087.8	4,341.7	3,542.4	1,771.5	0.0
Cum Hours:	25,061.4	55,214.0	76,471.0	94,187.0	108,358.5	115,446.3	119,788.0	123,330.3	125,101.8	125,101.8
Yr Total Cost:	729,806	924,225	689,624	608,661	515,720	275,623	182,992	157,361	87,457	0
Cum Total Cost:	729,806	1,654,031	2,343,655	2,952,316	3,468,036	3,743,659	3,926,650	4,084,011	4,171,468	4,171,468

Resource: ODC700 **ODC 700** **EOC:** ODC
Res Dept: 950 **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:	17,697.0	20,510.0	17,412.0	14,760.0	11,978.0	8,868.0	8,213.0	4,894.0	2,949.0	292.0
Cum Units:	17,697.0	38,207.0	55,619.0	70,379.0	82,357.0	91,225.0	99,438.0	104,332.0	107,281.0	107,573.0
Yr Total Cost:	17,697	21,064	18,365	16,004	13,351	10,171	9,693	5,943	3,685	375
Cum Total Cost:	17,697	38,761	57,126	73,129	86,480	96,651	106,344	112,288	115,973	116,349

Resource: PJSMGR **PROJECT SUPPORT MGR** **EOC:** LABOR
Res Dept: **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:	10,164.0	8,735.0	8,735.0	8,735.0	6,988.0	6,988.0	5,635.0	3,494.0	2,620.5	210.5
Cum Hours:	10,164.0	18,899.0	27,634.0	36,369.0	43,357.0	50,345.0	55,980.0	59,474.0	62,094.5	62,305.0
Yr Total Cost:	464,698	420,363	445,248	471,500	399,560	426,886	373,177	243,887	203,270	16,832
Cum Total Cost:	464,698	885,061	1,330,309	1,801,809	2,201,370	2,628,256	3,001,433	3,245,320	3,448,590	3,465,421

Resource: PJSREP **PROJECT SUPPORT REP** **EOC:** LABOR
Res Dept: **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	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,452.0	3,199.0	4,946.0	5,819.5	5,819.5	5,819.5	5,819.5	5,819.5	5,819.5	5,819.5
Yr Total Cost:	59,198	74,970	79,408	42,045	0	0	0	0	0	0
Cum Total Cost:	59,198	134,168	213,577	255,622	255,622	255,622	255,622	255,622	255,622	255,622

Resource: PMCOPR **PRIV MOTOR CARRIER** **EOC:** LABOR
Res Dept: **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:	5,808.0	6,988.0	3,494.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	5,808.0	12,796.0	16,290.0	16,290.0	16,290.0	16,290.0	16,290.0	16,290.0	16,290.0	16,290.0
Yr Total Cost:	181,210	229,489	121,538	0	0	0	0	0	0	0
Cum Total Cost:	181,210	410,699	532,237	532,237	532,237	532,237	532,237	532,237	532,237	532,237

Resource: RADTEC **RAD TECH** **EOC:** LABOR
Res Dept: **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:	2,178.0	2,620.5	2,620.5	1,747.0	1,747.0	1,747.0	873.5	0.0	0.0	0.0
Cum Hours:	2,178.0	4,798.5	7,419.0	9,166.0	10,913.0	12,660.0	13,533.5	13,533.5	13,533.5	13,533.5
Yr Total Cost:	74,226	94,002	99,567	70,292	74,459	79,551	43,120	0	0	0
Cum Total Cost:	74,226	168,229	267,796	338,088	412,547	492,098	535,217	535,217	535,217	535,217

Resource: S&HTEC **SAFETY TECH** **EOC:** LABOR
Res Dept: **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	174.7	174.7	0.0	0.0	0.0	0.0
Cum Hours:	726.0	1,599.5	2,473.0	3,346.5	3,521.2	3,695.9	3,695.9	3,695.9	3,695.9	3,695.9
Yr Total Cost:	20,989	26,581	28,154	29,814	6,316	6,748	0	0	0	0
Cum Total Cost:	20,989	47,569	75,724	105,538	111,854	118,602	118,602	118,602	118,602	118,602

Resource: SERVSUB **SUBS** **EOC:** SUBCONTRACTORS
Res Dept: 950 **Overtime:** STRY **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:	5,000.0	5,000.0	5,000.0	5,000.0	5,000.0	5,000.0	5,000.0	5,000.0	5,000.0	0.0
Cum Units:	5,000.0	10,000.0	15,000.0	20,000.0	25,000.0	30,000.0	35,000.0	40,000.0	45,000.0	45,000.0
Yr Total Cost:	5,000	5,135	5,274	5,421	5,573	5,735	5,901	6,072	6,248	0
Cum Total Cost:	5,000	10,135	15,409	20,830	26,403	32,138	38,039	44,111	50,359	50,359

09/07/2001
12:09 PM

Resource: TRNLAB **TRANSPORT LABORER** **EOC:** LABOR
Res Dept: **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:	16,388.0	17,924.0	14,340.0	12,547.0	10,755.0	10,754.0	8,962.0	3,585.0	1,792.6	431.4
Cum Hours:	16,388.0	34,312.0	48,652.0	61,199.0	71,954.0	82,708.0	91,670.0	95,255.0	97,047.6	97,479.0
Yr Total Cost:	410,614	472,703	400,585	371,158	337,013	360,003	325,241	137,134	76,203	18,889
Cum Total Cost:	410,614	883,316	1,283,901	1,655,059	1,992,072	2,352,076	2,677,317	2,814,451	2,890,654	2,909,543

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:	85,913.6	98,080.2	80,334.5	66,221.9	52,237.9	38,107.0	31,167.7	19,531.1	11,425.6	1,062.9
Cum Hours:	85,913.6	183,993.8	264,328.3	330,550.2	382,788.0	420,895.0	452,062.7	471,593.7	483,019.3	484,082.2
Yr Total Cost:	3,356,322	3,991,897	3,491,711	2,966,430	2,588,672	2,047,229	1,764,080	1,220,467	825,268	74,648
Cum Total Cost:	3,356,322	7,348,219	10,839,931	13,806,361	16,395,033	18,442,262	20,206,342	21,426,809	22,252,077	22,326,725

CAM _____ CONTROL TEAM _____

INCLUDES ESCALATION COSTS

WBS DICTIONARY
CONTROL ACCOUNT/CHARGE NUMBER

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.A.B	INFRASTRUCTURE SERVICES	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
ASVC3	MAINTENANCE	

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Subcontractors
Materials
ODC's

b. TECHNICAL CONTENT:

Maintenance is a level of effort account responsible for all activities relating to maintaining utilities and structural components of facilities.

The Maintenance scope provides for normal repairs to systems, structures and components of the facility, which includes minor repairs to roofs, windows, lighting, doors, and grounds, etc. It includes repairs to the utilities of the facilities, which include plumbing and piping systems for steam, water, building HVAC and sewage utilities. It includes preventative and corrective maintenance for maintaining the electrical utilities of the site. Maintenance is responsible for the non-Garage Maintenance portion of work to repair and maintenance mobile equipment such as hydraulic-lifts, man-lifts, generators, compressors, pumps and voltage above 48 volts and certified welding. The purpose of this work scope is to maintain the facilities and grounds in a safe configuration and maintain present operating condition until such time facilities closure or demolition activities commence. This work scope also includes the facility closure activities for all on-site buildings and trailers with the exception of AWWT, Silos, and WPRAP Facilities.

c. SCOPE OF WORK:

Project Manager	Control Account Manager	Control Team Manager

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
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50	L. HAMPSHIRE/4109	R NICHOLS
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ASVC3	MAINTENANCE	

14. ELEMENT TASK DESCRIPTION

MANAGEMENT SUPPORT

- Develop the general plans, procedures and policies to ensure the program functions properly
- Ensure compliance with DOE Maintenance Management Program.
- Database Administration
- Responsible for functional area maintenance.
- The development and review of maintenance work instructions
- Provide response and corrective action to audit and surveillance findings/concerns; self assessments
- Corrective/Preventive, Alteration/Fabrication oversight and liaison.
- Manage the Maintenance Department and calibrated equipment program; provide calibration service on this equipment; provide guidance on sitewide M&TE program
- Facility owner responsibilities for Buildings 11, 14A, 45A, 53A, and parking lots and outside access roads.

ADMINISTRATIVE SUPPORT

- Manage electronic maintenance management system
- Manage the planning, estimating, and scheduling of maintenance work orders
- Provide site-wide maintenance work order/ticket program training to personnel
- Modify, generate PM work orders at direction of supervision
- Maintain records management and document control
- Plan maintenance work to identify task, resources, and necessary permits for projects and activities relating to maintaining utilities and facilities. Estimate maintenance work activities to determine material needs and duration
- Identify and procure materials to complete general maintenance activities
- Research and update monthly delinquent notices for rigging equipment and tools.
- Schedule maintenance work activities by matching available resources with tasks
- Obtain work authorization and work completion verifications.
- Obtain necessary drawings, permits, and authorizations to complete maintenance

WORK SCOPE DEFINITION
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5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
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ASVC3	MAINTENANCE	

14. ELEMENT TASK DESCRIPTION

activities
- Maintain electronic and technical data on all maintained equipment at the FEMP
- Record and input wage data for all craftsperson on site
- Supervise planners, coordinators, and time card personnel.
- Maintain Automated Work Package administration.
- Supervise scheduling and document control function.
- Maintain computer program for storage, retrieval of technical data.

GENERAL LABORERS

- Seasonal ground maintenance by means of mowing, and weed/brush control.
- Pesticide applications in established work areas.
- Snow and ice removal on paved walkways, stairway, building, and entrances (Snow Removal Avg. 30x/year).
- Minor repairs to parking lot and roadways. These repairs consist of repairing potholes. A pothole is defined as surface defect in asphalt or concrete with a size no larger then 3 feet x 3 feet x 4' inches.
- Line striping of parking areas.
- Maintain signage along roadways (Approx. 400 signs throughout site)
- Maintain three speed bumps, two on the north excess road and one on the side excess road.
- Nominal repairs to the security/perimeter fence, the DOE property boundary fence, and fencing around soil piles and buildings that have undergone safe/facility shutdown. There are approximately 19,000 feet of perimeter fencing and 27,000 feet of other fencing being maintained by Maintenance. Nominal repairs are defined as incidental repairs such as damaged chain linked fencing up to two sections per incident, tightening barbwire, and outrigger. Maintain and control minor ground erosions by use of hand tools up to two sections of fencing.
- Removal of vegetation to prevent the breaching of the security fencing and maintain a clear line of sight
- Landscaping of the general areas around the administration area including the general areas south and north of the Administration Building and park area to such time facilities closure or demolition activities commence.
- Perform personnel and general office equipment moves, in support of Fluor Fernald Facility Infrastructure Integration and Closure Plan.

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ASVC3	MAINTENANCE	

14. ELEMENT TASK DESCRIPTION

- Record Center Support, Northstar support and miscellaneous support
- Labor Shop Management and Support Service

GENERAL MAINTENANCE

- Repair an estimated 5 underground water main breaks per year
- Plan and conduct two scheduled outages of electrical services (480v and up) per year. This activity involves the preventive and corrective maintenance of the main sub-station, 89 transformers, and 20 sub-stations units.
- Perform M&TE Calibrations
- Normal unplanned/unscheduled repair of electrical services 480v and less on switchgear.
- Perform preventive & corrective maintenance of HEPA filtration device equipment.
- Maintain the Site Tool Crib.
- Inspect and issue fall protection equipment
- Inspect and issue lifting equipment
- Maintain issuance of records of equipment
- Annual inspection of government owned hoists, jacks, cranes (gantry, overhead, chainfalls, lever operated hoists, etc.), under hook lifting devices (UHLD), retractable lanyards sitewide
- Perform rigging activities as requested by the projects
- Develop rigging plans as requested by the projects and rigging & tool services management
- Normal planned/scheduled or unplanned/unscheduled repair of air, steam, water, gas, and sewage pipe lines
- Perform minor asbestos repairs and package material for disposal
- Steam Outages Planned/Unplanned (2 per year).
- Perform preventative & corrective maintenance on facilities and non-project equipment. (Note that Preventive Maintenance for facilities covered by this scope will be decreased.)
  on a graded approach starting fifteen months prior to D&D schedule dates.
- Perform corrective maintenance on the site fleet of 170 roll-off boxes.
- Prepare leased trailers for removal from the site and to return to the vendor/owner. This includes disconnecting utilities, removing skirting, and cutting tie downs.

WORK SCOPE DEFINITION
(Work Package)

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EW05H3010	FACILITY AND PROJECT SUPPORT	
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NEW SCOPE PER CP #FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
ASVC3	MAINTENANCE	

14. ELEMENT TASK DESCRIPTION

- Perform facility closure functions. The term Facility Closure is defined as the activities to prepare facilities to ensure they have been rendered environmentally safe, and to ensure that sensitive or salvageable equipment and sensitive records have been removed prior to D&D or transferring off-site. The following activities will be performed as part of facility closure.
- Drain all fluids (e.g., lubricating, hydraulic) that remain in facility equipment, roll-up doors, overhead cranes, etc.
- Remove all containers of chemicals (opened or otherwise) from the facility and arrange for their proper disposition. (Note: Disposition of chemicals is not included in this scope.)
- Drain and remove all liquids from tanks (e.g., hot water heaters, cooling water tanks, etc.) both inside and outside the facility
- Remove refrigerant from air conditioners and other air cooling equipment in the facility
- Remove mercury from switches ballast, manometers, thermostats, light bulbs, piping, or other known areas of the facility
- Clean out the liquid and sludge from any sumps and floor drains in the inside and outside of the facility
- Remove all janitorial, office, personal protective equipment supplies from the facility
- Remove any non-emergency power/alarm-related batteries
- Remove all combustible material (e.g., paper, cardboard, wood, plastic) from the facility interior
- Remove all records that must be retained. Dispose of any records not needed. Remove any sensitive property (e.g., computers, radios) from the facility
- Removal of fire extinguishers
- Removal of salvageable equipment if identified by property management

d. WORK SPECIFICALLY EXCLUDED:

- New installation, alteration, or modifications to systems, structures, or components for project related needs or convenience reasons.
- Repairs to mitigate radiological or environmental concerns that are project or process related.

WORK SCOPE DEFINITION
(Work Package)

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ASVC3	MAINTENANCE	

14. ELEMENT TASK DESCRIPTION

- Repairs that include total replacement of systems or improvements that fall outside normal maintenance of a facility and its existing components. Examples of these types of replacement/repairs include replacement of roofs on any permanent or temporary structure and HVAC systems on permanent structures.
- Replacement of steam & condensation systems on permanent structures.
- Replacement of electrical distributions systems on permanent structures.
- Total replacement of sub-flooring and floor covering.
- Replacement or repair of fences related to D&D or other project related activities.
- New fence installations or repairs that require replacement of more than two sections of fencing.
- Repairs or installation of paving as the result of relocation or renovation projects.
- Processing or disposal of waste or recycling activities for maintenance waste streams.
- Size reduction, off-site shipment, or disposal of scrapped roll-off boxes.
- Replacement of damaged personal property items during personnel moves.
- Maintaining DOE owned rented or leased vehicles.
- Facility conditions inspections/assessments and engineering related activities are not part of this scope.
- Manpower for correcting improper installation or repairing defective equipment on newly installed trailers.
- General cleanup work resulting from project related activity.
- Large-scale repair or replacement to parking lots roadways and pads. Large-scale means a repair or replacement of an area larger then a pothole with the dimensions of 3 feet x 3 feet x 4 inches or a patch that requires more then 400 lbs. of fill material (concrete or asphalt).
- Preventative and corrective maintenance to the electrical distribution beyond pole 548; switch 2C/3C Load Break. Service beyond this point is maintained by the IT/WPRAP.
- Corrective or Preventative Maintenance at off-site leased facilities (i.e. Springdale, Crescentville, NorthStar, UNO/DOS, Delta, Harrison) to ensure structure integrity or alteration of any form.
- Training of maintenance craft for work which is not part of the core maintenance function.
- Utility disconnects to facilities. (Note: this work is baselined under PBS02)
- All future trailer installation and maintenance related actions to complete

WORK SCOPE DEFINITION
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1.1.A.B	INFRASTRUCTURE SERVICES	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
ASVC3	MAINTENANCE	

14. ELEMENT TASK DESCRIPTION

trailer installation.
- Facility Closure activities for the Laboratory, Bio Tower, Silos project, WPRAP, Soils and Water projects.
- Facility Closure activities do not include any disposition or removal activities for trailers.
- Disposition of hazardous/biological waste and chemicals from facilities (this includes trailers) not generated by the Maintenance Department. Generation refers to the project or parties who occupied the facility that used or was in possession of the chemical or hazardous material.
- Computer purchases and upgrades.
- Fluor Fernald General and Administrative Budget.

SECTION 3

1.0 NARRATIVE

1. PROJECT TITLE: FACILITY AND PROJECT SUPPORT	2. DATE: 09/10/01	3. PBS#: 01
4. WBS ELEMENT CODE: 1.1.A.B.	5. WBS ELEMENT TITLE: INFRASTRUCTURE SERVICES	
6. CAM NAME/ PHONE: ROBERT HAMMACK	7. CAM SIGNATURE:	
8. ORIGINAL/ CHANGE SCOPE/ PER CP#:	9. CONTROL ACCOUNT: ASVC	

PART 2: ASVC – INFRASTRUCTURE SERVICES
Section 3: ASVC3 – Maintenance

1.0 NARRATIVE

1.1 OVERVIEW

The Infrastructure Service Group Maintenance Department is a level of effort account responsible for all activities relating to maintaining utilities and structural components of facilities.

The Maintenance Department is responsible for the normal repairs to systems, structures and components of the facility, of which includes minor repairs to roofs, windows, lighting, and doors, and grounds, etc. It includes repairs to the utilities of the facilities, which include plumbing and piping systems for steam, water, building HVAC and sewage utilities. It includes preventative and corrective maintenance for maintaining the electrical utilities of the site. Maintenance is responsible for the non-Garage Maintenance portion of work to repair and maintenance mobile equipment such as hydraulic-lifts, man-lifts, generators, compressors, pumps and voltage above 48 volts and certified welding. The purpose of this work scope is to maintain the facilities and grounds in a safe configuration and present operating condition until such time facilities closure or demolition activities commence. This work scope also includes the facility closure activities for all on-site buildings and trailers with the exception of AWWT, Silos, and WPRAP facilities. ~~the administration areas, buildings, and all trailers onsite and WGS facilities.~~

R1-D-790

Note: Normal repairs - maintaining facilities and equipment in a safe operating condition

1.2 ASSUMPTIONS/EXCLUSIONS

1.2.1 Assumptions

- The basis of this estimate assume the use of Remediation Schedule "Execution 6 Scenario"
- The D&D Schedule (attachment V.2. in Section V. 'Support Data') is used for duration that trailers will be on site.

R1-D-318r

- Preventive Maintenance for facilities covered by this scope will be ~~stopped~~ decreased on a graded approach starting fifteen months prior to D&D S~~s~~chedule date~~s~~.

- We will not experience a mass exodus of skilled staff or craft persons that requires a large-scale training event. Large-scale training would be defined as a training evolution driven by ¼ of our staff (salary or wage) requiring this skill to insure our ability to provide continuity and quality of service.

- The utility engineers will continue to be the facility owner for all the utilities on site, with the exception of the electrical distribution.

- The Maintenance Department is the facility owner of the electrical distribution.

- Site project managers will have identified and baselined for their project equipment/process that needs maintenance support. This includes millwrights, pipefitters, electricians, welders, instrument mechanics, oilers, riggers, and carpenters, laborers, supervisors, and planner/estimator and schedulers assistance.

- At the schedule date for facility closure of a facility (including trailers), occupants of facilities who are in procession of hazardous material or chemicals will be responsible for the cost of disposition since they are considered to be the generator.

R1-F01-028

- Maintenance will ~~package~~ remove waste during Facility Closure activities. Cost associated to the disposition of waste is not part of this work scope. Waste Generator Services (WGS) will be responsible for all activities and cost related to the removal of hazardous material, waste, and chemicals from facilities. This includes sumps and drains

R1-D-790

- All identified salvageable equipment removal activities identified are part of this work scope. Property Management is responsible for identifying salvageable equipment.

- Projects (with the exception of WGS) are responsible for facility closure activities. These include AWWT, Silos, and WPRAP.

- All new roof installation will be baselined by other projects. ~~During new installation, replacement of flashing, curbing or drain sills surrounding penetration and rooftop (HVAC's) will be repaired or replaced.~~

- Support organizations will support the maintenance work order/ticket program.

- That no additional regulatory changes will alter the course of maintenance activities.

- The Maintenance Department will make repairs to DOE owned, leased or rented equipment, except as defined in lease agreements.

R1-F01-041

- The numbers of roll-off box repairs are assumed to be 72 repairs per year for FY01 and FY02, 40 repairs per year for FY03 through FY06, and 10 repairs per year for FY07 and FY08. The repairs are assumed to average 35 manhours per repair.

R1-D-793

- The primary chemical agent used by the Maintenance Department Laborer section ~~will use road salt as the primary means~~ for snow and ice control will be road salt.
- The funding and supplying of salt will come from the Transportation Department
- Personnel relocation and general office equipment moves pertaining to the "Fluor Fernald Facility Infrastructure Integration and Closure Plan" are included in this work scope.
- The Maintenance Department will remain housed in building 3045 till 10/04.
- The management of this charge has the responsibility of implementing all sections, of the Fernald Atomic Trades & Labor Council Collective Bargaining Agreement.
- The Maintenance Training Qualification Program document governs the required training to perform core (not project related training) maintenance activities to maintain the facilities.
- The "Graded Approach" philosophy will be utilized for the duration of the contract to determine the depth of detail and magnitude expended for this work scope.
- Working hours, when applicable, will be adjusted for Daylights-Savings-Time to ensure day shifts begin during daylight hours.

R1-D-035

- Manpower calculations are based on the following four possible sources: Historical Data (HD), Industry Standard (IS), Composite of HD & IS (Comp), and Professional Judgement (PJ). See Calculation Table ~~in~~ following Section ~~V~~ 1.4.4 for calculations by work scope activity/sub activity.

R1-F01-002

- Other Direct Costs (ODCs) are based on FY00 actual cost of work performed and budgeted manpower (FTEs). ~~, as follows: ODC $s/FTEs. Minimum of $100/FTE will be used if FY00 calculations are < $100/FTE.~~
  See Section 1.4.3 for quotient, by work scope function.

R1-D-048

- ~~Premium~~ Overtime is based on FY00 actual cost of work performed overtime hours (OT) and regular (Reg) hours, as follows: OT/Reg.
  See Section 1.4.3 for quotient, by work scope function.

- Material rates are broken down into two parts: 1-General Materials and 2-Additional Materials. General Materials are based on data supplied by Estimating Services. Additional Materials are based on FY00 ACWP data. See section 1.4 for materials rates.
- Subcontractor dollars are based on existing subcontracts at time of this baseline and anticipated new subcontracts not currently in place.
- The AWWT Project is responsible of all Facility Closure activities
- Facility Closure activities for Building 15, Laboratory, will be treated as a separate project under a different work scope

R1-F01-028

- Personal Protective Equipment (PPE) use is as follows: 13 sets per excavation, 20 sets per Facility Closure (Bldg.), 250 sets for Lab Bldg. Trailers require no PPE
- A unit rate of $6.21% will be applied for all PPE Laundry Subcontract Service. This unit cost includes one anti-contamination coverall, hood or skull cap, one pair of nylon shoe covers, one pair of rubber shoe covers, and one full face respirator

R1-F01-001

- Dollar amounts are unescalated
- All calculations for manpower, subcontracts, materials, and ODCs are based on a 12-month year for 2002, 2003, 2004, 2005, 2006, 2007, 2008, and 2009
- All overtime is planned overtime
- Assume that all work activities are based on a 40-hour workweek
- The basis of this estimate assumes the use of Remediation Schedule, and Execution 6 Scenario
- Sales Tax @ 6% for all taxable items
- Estimate is expressed in FY01 dollars
- Estimate represents budget for the length of this charge number

1.2.2 Exclusions

- New installation, alteration, or modifications to systems, structures, or components for project related needs or convenience reasons.
- Repairs to mitigate radiological or environmental concerns that are project or process related. These types of repairs are considered to be part of the facilities project function.

- Repairs that include total replacement of systems or improvements that fall outside normal maintenance of a facility and its existing components. These types of replacement/repairs are: Replacement of roofs on any permanent or temporary structure and HVAC systems on permanent structures

- Replacement of steam & condensate systems on permanent structures

- Replacement of electrical distributions systems on permanent structures

- Total replacement of sub-flooring and floor covering

- Replacement or repair of fences related to D&D ~~due to remediation~~ or other project related activities

R1-D-799

- New fence installations or repairs that require replacement of more than two sections of fencing.

- Repairs or installation of paving as the result of relocation or renovation projects.

- Costs associated with the processing of waste or recycling activities for maintenance waste streams. (Note Maintenance will continue to generate waste and prepare the packaging as required for pick-up)

R1-F01-041

- Size reduction, off-site shipment, or disposal of scrapped roll-off boxes.

- Replacement costs of damaged personal property items during personnel moves.

- This charge number will not be required to cover "other maintenance trades" wages or material costs associated with maintaining DOE owned rented or leased vehicles or equipment. An example of this exclusion would be industrial mechanics performing work on DOE owned, rented or leased equipment or wages for Maintenance department salaried staff members that plan, schedule or supervise the activities of the wage crafts persons in the above statement.

- Facility conditions inspections/assessments and engineering related activities are not part of this scope.

- Cost and manpower for correcting improper installation or repairing defective equipment on newly installed trailers.

- General cleanup work resulting from project related activity such Waste Generation Services or Facility Projects.

R1-D-794

- Maintenance will not pay for other organizations. ~~New~~ furniture purchases ~~for support or project organizations for any reasons related~~ with respect to conveniences~~s~~ or ergonomics. This ~~which~~ includes but is not limited to keyboard trays, chairs, computer equipment, and foot rests~~, etc~~.

- Large-scale repair or replacement to parking lots roadways and pads. Large-scale means a repair or replacement of an area larger then a pot hole with the dimensions of 3 feet x 3 feet x 4 inches or a patch that requires more then 400 lbs. of fill material (concrete or asphalt).

- Preventative and corrective maintenance to the electrical distribution beyond pole 548; switch 2C/3C Load Break. Service beyond this point is maintained by the IT/WPRAP.

- This charge number will not be required to provide Corrective or Preventative Maintenance at an offsite leased facility (i.e. Springdale, Crescentville, NorthStar, UNO/DOS, Delta, Harrison) to ensure structure integrity or alteration of any form.

- Training of maintenance craft for work which is not part of the core maintenance function.

- Utility disconnects to all facilities. Note this work is baseline under the D&D project. The Maintenance Department will perform execution of the work.

- All future trailer installation and maintenance related actions to complete trailer installation.

R1-F01-028

- Facility Closure activities for ~~Building 15,~~ Laboratory~~,~~ [a portion of Building 15], Building 18D, [Bio Tower], Silos project, WPRAP, Soils and Water projects

- Facility Closure activities do not include any disposition or removal activities for trailers. ~~This is considered a Property Management function.~~

- Disposition of hazardous/biological waste and chemicals from facilities (this includes trailers) not generated by the Maintenance Department. Generation refers to the project or parties who occupied the facility that used or was in possession of the chemical or hazardous material

R1-F01-001

- Computer purchases and upgrades

- Does not include Fluor Fernald General Administrative Cost

1.2.3 Government-Furnished Equipment/Services

None

1.3 DRIVERS

1.3.1 Administrative

- 430.1A; Life Cycle Asset Management
- 4330.4B; Maintenance Management Program
- State of Ohio Administrative Code (OAC)
- 4101:4 Boiler Inspection: Boiler Code called "Ohio Boiler and Unfired Pressure Vessel Rules"
- 4101:4-3 General Requirements
- 4101:4-17 Repair and Inspection of Unfired Pressure Vessels
- 41 CFR Public Contracts and Property Management
- Part 101; Public Contracts Management
- 48 CFR Federal Acquisition Regulation Systems
- Parts 22.1 Basic Labor Policies
- Part 31; Contract Cost Principles and Procedures
- Part 45; Management of Government Property
- Part 52.222-6; Davis Bacon Act
- Part 52.251-1; Government Supply Sources
- 5480.19; CONOPS
- Price Anderson Amendments Act of 1998
- Federal, State and Local Agreement
- FAT&LC Labor Contract effective 3/1/98

1.3.2 Physical

- OU1 Complex D&D
- Plant 6/East Warehouse D&D
- Plant 1 Phase II D&D
- Admin Complex D&D
- Electrical Station D&D
- Silos 1-4, Superstructure, and RTS D&D
- OU3 other D&D
- Plant 5 D&D
- Maintenance Tank Farm D&D
- Multi Complex D&D
- Lab/Pilot Plant D&D
- Stand Alone D&D Components
- Mixed Waste Projects
- Low Level Waste Projects
- OSDF Project
- Aquifer/AWWT Project
- Environmental Monitoring
- ARASA Operations

- WPRAP Project Management
- Natural Resources Restoration
- Soil Remediation
- Stock Piles
- Silos Projects
- Waste Management

1.4 SCOPE OF WORK

1.4.1 Management Support

1.4.1)1 Plan/Scope

- Develop the general plans, procedures and policies to ensure the program functions properly
- Review procedures
- Serves as the primary DOE Maintenance Department interface

R1-D-795

- ~~Administrative Engineering~~ Ensure compliance with DOE Maintenance Management Program
- Database Administration
- Responsible for functional area maintenance.
- The development and review of maintenance work instructions
- Provide response and corrective action to audit and surveillance findings/concerns; self assessments

R1-F01-029

- ~~Special analysis, projects, other~~
- Responsible for maintaining a safe workforce through use of VPP and ISM principles.
- Corrective/Preventive, Alteration/Fabrication oversight and liaison.
- Manage the Maintenance Department and calibrated equipment program provide calibration service on this equipment; provide guidance on sitewide M&TE program

R1-D-796

- Facility owner responsibility for buildings 11, 14A, 45A, and 53A, and parking lots and outside access roads.

1.4.1)2 Quantification

(See Quantification Table)

R1-D-048

~~Premium~~ Overtime
~~Old 7MAN1 related = .0079Xregular hours~~ Overtime at 1.5x Maintenance Manager 1.16% and Maintenance Rep .77%, overtime at 2x Maintenance Manager .32% and Maintenance Rep .20%

1.4.1)3 ODCs

Based on actuals of charge #'s 7MAN1

ODC 600 – None
ODC 700 - $11/FTE
ODC Travel - $110/FTE

1.4.1)4 Subcontracts/Materials

Subcontracts: NONE

Materials:

General Material $594/FTE

Additional Materials
Materials/FTE $3,348/FTE (Maintenance Materials/Supplies, Safety Clothing & Equipment, etc.)
Materials/Year NONE

1.4.2 Administrative Support

1.4.2)1 Plan/Scope

- Manage electronic maintenance management system
- Manage the planning, estimating, and scheduling of maintenance work orders
- Maintain interface with all required support organizations
- Provide site-wide maintenance work order/ticket program training to personnel
- Modify, generate PM work orders at direction of supervision
- Maintain records management and document control
- Plan maintenance work to identify task, resources, and necessary permits for

projects and activities relating to maintaining utilities and facilities. Estimate maintenance work activities to determine material needs and duration

- Identify and procure materials to complete general maintenance activities
- Research and update monthly delinquent notices for rigging equipment and tools.
- Schedule maintenance work activities by matching available resources with tasks
- Obtain work authorization and work completion verifications.
- Prepare weekly supervisors schedule
- Obtain necessary drawings, permits, and authorizations to complete maintenance activities
- Maintain electronic and technical data on all maintained equipment at the FEMP
- Record and input wage data for all craftspersons on site
- Supervise planners, coordinators, and time card personnel.
- Maintain Automated Work Package administration.
- Supervise scheduling and document control function.
- Maintain computer program for storage, retrieval of technical data.
- Complete Weekly Reports.
- Complete Monthly Reports.
- Complete Quarterly Performance Assessment Reports.

1.4.2)2 Quantification

(See Quantification Table)

R1-D-048

~~Premium~~ Overtime
~~Old 7MAN1 related = .0079Xregular hours~~

1.4.2)3 ODCs

Based on actuals of charge #'s 7MAN1

ODC 600 - None
ODC 700 - $11/FTE
ODC Travel - $110/FTE

1.4.2)4 Subcontracts/Materials

Subcontracts: NONE

Materials:

General Material $594/FTE

Additional Material
Materials/FTE $3,348/FTE (Maintenance Materials/Supplies, Safety Clothing and Equipment, etc.)

Materials/Year NONE

1.4.3 General Laborers

1.4.3)1 Plan/Scope

- Seasonal ground maintenance by means of mowing, and weed/brush control in the following areas: These are specifically defined in the Quantification Table
- Pesticide applications in established work areas. These are specifically defined in the Quantification Table
- Snow and ice removal on paved walkways, stairway, building, and entrances (Snow Removal Avg. 30x/year).
- Minor repairs to parking lot and roadways. These repairs consist of repairing potholes. A pothole is defined as surface defect in asphalt or concrete with a size no larger then 3 feet x 3 feet x 4' inches. Pothole repairs are usually conducted in the spring. Under this situation, the Labor shop procures approximately 50 tons of material for pothole repair per fiscal year.
- Line striping of parking areas.
- Maintain signage along roadways (Approx. 400 sign throughout site)

- Maintain three speed bumps, two on the north excess road and one on the side excess road.

- Nominal repairs~~,~~ including vegetation removal, to the security/perimeter ~~existing~~ fences~~,~~ the DOE property boundary fence, and fencing around soil piles and buildings that have undergone safe/facility shutdown. There are approximately 19,000 feet of perimeter fencing and 27,000 feet of other fencing being maintained by Maintenance.~~excluding parameter fencing around D&D projects (Approx. 20,700 linear feet)~~

R1-D-799

- Normal repairs are defined as; incidental repairs such as damaged chain linked fencing up to (2) sections per incident, tightening barbwire, and outrigger. Maintain and control minor ground erosions by use of hand tools up to (2) sections of fencing. ~~Does not include new installation or repairs that require more than replacement of 2 sections of fencing.~~

R1-D-799

- Removal of vegetation to prevent the breaching of the security fencing and maintain a clear line of sight

- Landscaping of the general areas around ~~south front entrance of~~ the administration area, including the general areas south and north of the Administration Building and the park area, to such time facilities closure or demolition activities commence.

R1-D-801

- Perform personnel moves, in support of Fluor Fernald Facility Infrastructure Integration and Closure Plan.

- Record Center Support with 1 general laborer

- NorthStar Support with 1 general laborer

- Miscellaneous Labor Shop Support.

- Labor Shop Management and Support Service

1.4.3)2 Quantification

(See Quantification Table)

~~Premium~~ Overtime
~~Old ABAL2 related = .0251Xregular hours~~ Overtime at 1.5x General Laborer 3.19% and Maintenance Rep .77%, overtime at 2x General Laborer .82% and Maintenance Rep .20%

R1-D-048

1.4.3)3 ODCs

Based on actuals of charge #'s ABAL2

ODC 600 - None
ODC 700 - $11/FTE
ODC Travel - $110/FTE

1.4.3)4 Subcontracts/Materials

Subcontracts: NONE

Materials:

General Material $594/FTE

Additional Material
Materials/FTE $3,348/FTE (Maintenance Materials/Supplies, Safety Clothing and Equipment, etc.)

Materials/Year NONE

1.4.4 General Maintenance

1.4.4)1 Plan/Scope

- Perform an estimate of 5 underground water main breaks per year
- Plan and conduct schedule outages of electrical services (480v and up). This activity involves the preventive and corrective maintenance of the main sub-station, 89 transformers, and 20 sub-stations units. The numbers of planned outages per year are 2.
- Perform M&TE Calibrations
- Normal unplanned/unscheduled repair of electrical services 480v and less on switchgear.
- Perform preventive & corrective maintenance of HEPA filtration device equipment.
- Maintain the Site Tool Crib.
- Inspect and issue fall protection equipment

- Inspect and issue lifting equipment
- Maintain issuance of records of equipment
- Annual inspection of government owned hoists, jacks, cranes (gantry, overhead, chainfalls, lever operated hoists, etc.), under hook lifting devices (UHLD), retractable lanyards sitewide
- Perform rigging activities as requested by the projects
- Develop rigging plans as requested by the projects and rigging and tool services management
- Normal planned/scheduled or unplanned/unscheduled repair of air, steam, water, gas, and sewage pipe lines
- Perform minor asbestos repairs and package material for disposal
- Steam Outages Planned/Unplanned (2 total).

R1-D-608
- Perform preventative and corrective maintenance on ~~non-project~~ facilities and non-project equipment.

R1-F01-041
- Perform corrective maintenance on the site fleet of 170 roll-off boxes.

R1-F01-029
- Prepare leased trailers for removal from the site and to return to the vendor/owner. This includes disconnecting utilities, removing skirting, and cutting tie downs.
- Perform facility closure functions. The term Facility Closure is defined as:

R1-D-800
The activities to prepare facilities to ensure they have been rendered environmentally safe~~,~~ and to ensure that ~~identified,~~ sensitive or salvageable equipment and ~~as well as~~ sensitive records have been removed prior to D&D or transferring off-site. These following activities will be performed as part of Facility Closure (refer to ~~see~~ calculation table) ~~for actuals~~:

- Drain all fluids (e.g., lubricating, hydraulic) that remain in facility equipment, roll-up doors, overhead cranes, etc.
- Remove all containers of chemicals (opened or otherwise) from the facility and arrange for their proper disposition. Disposition of chemicals is part of WGS scope

R1-F01-029
- ~~Remove all containers of waste from the interior and exterior of the facility and arrange for their proper disposition. Disposition of waste is part of WGS scope~~

- Drain and remove all liquids from tanks (e.g., hot water heaters, cooling water tanks, etc.) both inside and outside the facility
- Remove refrigerant from air conditioners and other air cooling equipment in the facility
- Remove mercury from switches ballast, manometers, thermostats, light bulbs, piping, or other known areas of the facility
- Clean out the liquid and sludge from any sumps and floor drains in the inside and outside of the facility
- Remove all janitorial, office, personal protective equipment supplies from the facility
- Remove any non-emergency power/alarm-related batteries
- Remove all combustible material (e.g., paper, cardboard, wood, plastic) from the facility interior
- Remove all records that must be retained. Dispose of any records not needed. Remove any sensitive property (e.g., computers, radios) from the facility
- Removal of fire extinguishers
- Removal of salvageable equipment if identified by property management

1.4.4)2 Quantification

(See Quantification Table)

R1-D-048

~~Premium~~ Overtime
~~Old 3BC91 rleated = .0259~~
~~Old 7FOP1 related = .0222~~
~~Old 7MAN3 related = .0824~~
~~Old 7MAN4 related = .0347~~
~~Old 7MAN5 related = .0000~~
~~Old 7MAN6 related = .0880~~
~~Old 7MAN8 related = .0225~~
~~Old 7RTS2 related = .0021~~
~~Old 7RTS3 related = .0000~~
~~Average = .0309X regular hours~~ Overtime at 1.5x Carpenter 4.67%, Electrician 2.94%, IH Tech 2.62%, Instrument Mechanic .40%, Maintenance Manager 1.16%, Maintenance Rep .77%, Pipefitter 7.11%, QA Engineer 1.02%, Rad Tech 6.28%, Welder 4.61% and

overtime at 2x Carpenter 1.2%, Electrician .75%, IH Tech .48%, Instrument mechanic .09%, Maintenance Manager .32%, Maintenance Rep .20%, Pipefitter 1.85%, QA Engineer .27%, Rad Tech 1.59%, Welder 1.17%

1.4.4)3 ODCs

Based on actuals of charge #'s 3BC9, ABAL2, 7FOP1, 7MAN3, 4, 5, 6, 8, 7RTS2, 3

ODC 600 - None
ODC 700 - $11/FTE
ODC Travel - $110/FTE

1.4.4)4 Subcontracts/Materials

Subcontracts

FY	01	02	03	04	05	06
Elevator service	$10k	$10K	$10k			
National elevator Insp.	$5K	$5K	$5K			
Rumpke port-A-Let	~~$9K~~7.5K		$9K	$9K	$9K	$9K
Pac Van	$2.~~5K~~1K		$2.5K	$2.5K	$2.5K	$2.5K
Hearing interpreter	$3K					
Rumpke Container	$2.8K					
Power Service (high volt)	$12K			$12K	$12K	$12K
Trane Company (HVAC)	$8.3K	$10K	$10K	$10K		

R1-F01-030

R1-F01-030

Materials:

General Material $594/FTE

Additional Material
Materials/FTE $3,348/FTE (Maintenance Materials/Supplies, Safety Clothing and Equipment, etc.)

Materials/Year NONE

Maintenance Quantification Table Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)			
Activity	**Sub-Activity**	**Calc Type**	**Calculations**
1.4.1)2 Management Support			
Develop the general plans, procedures and policies to ensure the program functions properly	Procedures (Own)	HD & PJ	.25 Eng, .25 Tech Spec, .25 Mgr (MPS) FTEs
Review Procedures	Procedures (Other)	HD & PJ	.10 Eng, .10 Tech Spec, .10 Mgr FTEs
Serves as the primary DOE Maintenance Department interface		HD & PJ	.15 Maint Mgr FTEs
R1-D-795 ~~Administrative Engineering~~ Ensure compliance with DOE Maintenance Management Program	PM Program	HD & PJ	.25 Eng FTEs
Database Administration	Rigging and Tool Crib equipment tracking	HD & PJ	.25 Tech Spec FTEs
Responsible for functional area maintenance.		HD & PJ	.15 Mgr (Maint), .25 Mgr (MPS) FTEs
The development and review of maintenance work instructions **(# of MWIs and hrs/MWI)**		HD & PJ	.10 Eng, .10 Tech Spec, .10 Mgr FTEs
Provide response and corrective action to audit and surveillance findings/concerns; self assessments		HD & PJ	.05 Eng, .05 Tech Spec, .05 Mgr FTEs
Special analysis, projects, other		HD & PJ	.25 Eng, .25 Tech Spec, .25 Mgr (MPS) FTEs
Responsible for maintaining a safe workforce through use of VPP and ISM principles.		HD & PJ	1.25 Mgr FTEs
Corrective/Preventive, Alteration/Fabrication oversight and liaison.		HD & PJ	.45 Mgr (Maint), .25 Mgr (Deputy) FTEs
Manage the Maintenance Department and calibrated equipment program provide calibration service on this equipment; provide guidance on sitewide M&TE program		HD & PJ	.05 Mgr (MPS) FTEs
R1-D-796 Facility owner responsibility for Buildings 11, 14A, 45A and 53A, and parking lots and outside access roads.		HD & PJ	.15 Mgr (AAM) FTEs
1.4.2)2 Administrative Support			
Manage electronic maintenance management system		HD & PJ	.20 Mgr (AS) FTEs
Manage the planning, estimating, and scheduling of maintenance work orders		HD & PJ	.60 Mgr (AS) FTEs
Maintain interface with all required support organizations		HD & PJ	.20 Mgr (AS) FTEs

Maintenance Quantification Table Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)			
Activity	**Sub-Activity**	**Calc Type**	**Calculations**
1.4.2)2 Administrative Support (Continued)			
Provide sitewide maintenance work order/ticket program training to personnel		HD & PJ	.15 Doc Control FTEs
Modify, generate PM work orders at direction of supervision		HD & PJ	.15 Doc Control FTEs
Maintain records management and document control		HD & PJ	.90 Doc Control FTEs
Plan maintenance work to identify task, resources, and necessary permits for projects and activities relating to maintaining utilities and facilities.		HD & PJ	2.25 Planner FTEs
Estimate maintenance work activities to determine material needs and duration		HD & PJ	.75 Planner FTEs
Identify and procure materials to complete general maintenance activities		HD & PJ	2.00 Planner FTEs
Research and update monthly delinquent notices for rigging equipment and tools.		HD & PJ	.20 Scheduler FTEs
Schedule maintenance work activities by matching available resources with tasks		HD & PJ	.70 Scheduler FTEs
Obtain work authorization and work completion verifications.		HD & PJ	.40 Scheduler FTEs
Prepare weekly supervisors schedule		HD & PJ	.30 Scheduler FTEs
Track work order status and physical location.		HD & PJ	.40 Scheduler FTEs
Obtain necessary drawings, permits, and authorizations to complete maintenance activities		HD & PJ	1.00 Coordinator FTEs
Maintain electronic and technical data on all maintained equipment at the FEMP		HD & PJ	1.80 Doc Control FTEs
Maintain Maintenance Work Ticket program		HD & PJ	1. Clerk, .3 Mgr.
Record and input wage data for all craft persons on site		HD & PJ	.70 Info Records FTEs
Supervise planners, coordinators, and time card personnel.		HD & PJ	.70 Supervisor FTEs
Maintain Automated Work Package administration.		HD & PJ	.30 Supervisor FTEs

Maintenance Quantification Table

Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity	Sub-Activity	Calc Type	Calculations
1.4.2)2 Administrative Support (Continued)			
Supervise scheduling and document control function.		HD & PJ	.50 Supervisor FTEs
Maintain computer program for storage, retrieval of technical data.		HD & PJ	.50 Supervisor FTEs
Complete Weekly Reports.	Attendance	HD & PJ	.03 Info Records FTEs
	Labor Transactions	HD & PJ	.03 Info Records FTEs
	Overtime	HD & PJ	.03 Info Records FTEs
	Safe Work Hours	HD & PJ	.03 Info Records FTEs
	Work Order Backlog	HD & PJ	.03 Info Records FTEs
	PM Backlog	HD & PJ	.03 Info Records FTEs
	Training and Sick Hours	HD & PJ	.03 Info Records FTEs
Complete Monthly Reports.	Garage Safe Work Hours	HD & PJ	.03 Info Records FTEs
	Garage Work Orders (CMs)	HD & PJ	.03 Info Records FTEs
	Garage Work Orders (NPs)	HD & PJ	.03 Info Records FTEs
Complete Quarterly Performance Assessment Report.		HD & PJ	.03 Info Records FTEs
Complete Quarterly Performance Assessment Report.		HD & PJ	.03 Info Records FTEs
QC	Provide QC surveillance General Maintenance Activities	HD & PJ	1 FTE
1.4.3)2 General Laborer			
Seasonal ground maintenance by means of mowing, and weed/brush control in the following areas:	East Trailer complex.	HD & PJ	Laborer: 31 Manhours/x revolution. May = 3x, June = 2.5x, July = 2x, Aug = 1.5x, Sept = 1x
	Parking lot sidewalk to rear of Admin Bldg.	HD & PJ	Laborer: 40 Manhours/x revolution. May = 3x, June = 2.5x, July = 2x, Aug = 1.5x, Sept = 1x
	Cleanside of Service and H&S Bldgs.	HD & PJ	Laborer: 12.5 Manhours/x revolution. May = 3x, June = 2.5x, July = 2x, Aug = 1.5x, Sept = 1x
	Trailers 76, 77, 78, 79, 80, & 81.	HD & PJ	Laborer: 8.5 Manhours/x revolution. May = 3x, June = 2.5x, July = 2x, Aug = 1.5x, Sept = 1x
	Trailers 25, 43, 44, 45, 46, East side of Bldg 5.	HD & PJ	Laborer: 11.5 Manhours/x revolution. May = 3x, June = 2.5x, July = 2x, Aug = 1.5x, Sept = 1x
	Lab Cleanside and courtyards, Trailers 61, 62, Little Mexico.	HD & PJ	Laborer: 4.5 Manhours/x revolution. May = 3x, June = 2.5x, July = 2x, Aug = 1.5x, Sept = 1x

Maintenance Quantification Table

Historical Data = (HD) Industry Standard = (IS) Composite of HD & IS = (Comp) Professional Judgement = (PJ)

Activity	Sub-Activity	Calc Type	Calculations
	Trailers 29, 303, 304, 305, 502, 510, 516 520, 526, 529, 540.	HD & PJ	Laborer: 5.5 Manhours/x revolution. May = 3x, June = 2.5x, July = 2x, Aug = 1.5x, Sept = 1x
1.4.3)2 General Laborer (Continued)			
Seasonal ground maintenance by means of mowing, and weed/brush control in the following areas: (Continued)	Tr 180, H20 Tank, Parking Lot Construction.	HD & PJ	Laborer: 5.0 Manhours/x revolution. May = 3x, June = 2.5x, July = 2x, Aug = 1.5x, Sept = 1x
	South Access road	HD & PJ	Laborer: 36.0 Manhours/x revolution. May = 3x, June = 2.5x, July = 2x, Aug = 1.5x, Sept = 1x
	Bldg 68	HD & PJ	Laborer: 36.0 Manhours/x revolution. May = 3x, June = 2.5x, July = 2x, Aug = 1.5x, Sept = 1x
	Hooperville Trailers 68, 168, Rad Point.	HD & PJ	Laborer: 1.5 Manhours/x revolution. May = 3x, June = 2.5x, July = 2x, Aug = 1.5x, Sept = 1x
	North Access Road	HD & PJ	Laborer: 71.0 Manhours/x revolution. May = 3x, June = 2.5x, July = 2x, Aug = 1.5x, Sept = 1x
	Cells	HD & PJ	Laborer: 16.0 Manhours/x revolution. May = 3x, June = 2.5x, July = 2x, Aug = 1.5x, Sept = 1x
	Rail yard	HD & PJ	Laborer: 360.0 Manhours/x revolution. May = 3x, June = 2.5x, July = 2x, Aug = 1.5x, Sept = 1x
	Roadway to Bldg. 3045 and new RIMIA pad.	HD & PJ	Laborer: 22.0 Manhours/x revolution. May = 3x, June = 2.5x, July = 2x, Aug = 1.5x, Sept = 1x
	New RIMIA	HD & PJ	Laborer: 9.0 Manhours/x revolution. May = 3x, June = 2.5x, July = 2x, Aug = 1.5x, Sept = 1x
	Rose Garden (old), Road Leading to grass	HD & PJ	Laborer: 18.0 Manhours/x revolution. May = 3x, June = 2.5x, July = 2x, Aug = 1.5x, Sept = 1x
	Garage	HD & PJ	Laborer: 1.0 Manhours/x revolution. May = 3x, June = 2.5x, July = 2x, Aug = 1.5x, Sept = 1x
	Trailers 66 and 69.	HD & PJ	Laborer: 13.0 Manhours/x revolution. May = 3x, June = 2.5x, July = 2x, Aug = 1.5x, Sept = 1x
	Old RIMIA	HD & PJ	Laborer: 10.5 Manhours/x revolution. May = 3x, June = 2.5x, July = 2x, Aug = 1.5x, Sept = 1x
	S.W.U.	HD & PJ	Laborer: 1.0 Manhours/x revolution. May = 3x, June = 2.5x, July = 2x, Aug = 1.5x, Sept = 1x
	Vitt and associated trailers.	HD & PJ	Laborer: 54.0 Manhours/x revolution. May = 3x, June = 2.5x, July = 2x, Aug = 1.5x, Sept = 1x
	Gas Meter	HD & PJ	Laborer: 104.0 Manhours/x revolution. May = 3x, June = 2.5x, July = 2x, Aug = 1.5x, Sept = 1x

R1-D-801r

Maintenance Quantification Table

Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity	Sub-Activity	Calc Type	Calculations
	AWWT area.	HD & PJ	Laborer: 14.0 Manhours/x revolution. May = 3x, June = 2.5x, July = 2x, Aug = 1.5x, Sept = 1x
1.4.3)2 General Laborer (Continued)			
Seasonal ground maintenance by means of mowing, and weed/brush control in the following areas: (Continued)	Hamilton Parking Lot	HD & PJ	Laborer: 8.0 Manhours/x revolution. May = 3x, June = 2.5x, July = 2x, Aug = 1.5x, Sept = 1x
	Cincinnati Parking Lot	HD & PJ	Laborer: 6.5 Manhours/x revolution. May = 3x, June = 2.5x, July = 2x, Aug = 1.5x, Sept = 1x
	H20 Basin	HD & PJ	Laborer: 28.0 Manhours/x revolution. May = 3x, June = 2.5x, July = 2x, Aug = 1.5x, Sept = 1x
	FDF Roadway	HD & PJ	Laborer: 4.0 Manhours/x revolution. May = 3x, June = 2.5x, July = 2x, Aug = 1.5x, Sept = 1x
Pesticide applications in established work areas. (weekly applications)	East Trailer complex.	HD & PJ	Laborer 1.75 manhours/week
	Admin Bldg.	HD & PJ	Laborer 1.75 manhours/week
	Cleanside of Service and H&S Bldgs.	HD & PJ	Laborer 4.5 manhours/week
	Trailers 76, 77, 78, 79, 80, & 81.	HD & PJ	Laborer 2.5 manhours/week
	Trailers 25, 43, 44, 45, 46, East side of Bldg 5.	HD & PJ	Laborer 1.5 manhours/week
	Lab Cleanside and courtyards, Trailers 61, 62, Little Mexico.	HD & PJ	Laborer 1.5 manhours/week
	Trailers 29, 303, 304, 305, 502, 510, 516 520, 526, 529, 540.	HD & PJ	Laborer 2.0 manhours/week
	Bldg 71, Plt 1 Pad Trailers/Tents, Chem Warehouse.	HD & PJ	Laborer 0.5 manhours/week
	Hooperville Trailers 68, 168, Rad Point.	HD & PJ	Laborer 3.75 manhours/week
	Rose Garden (old), Road Leading to grass	HD & PJ	Laborer 0.5 manhours/week
	Garage	HD & PJ	Laborer 0.5 manhours/week
	Old RIMIA	HD & PJ	Laborer 1.0 manhours/week
	Bldg 68	HD & PJ	Laborer 1.0 manhours/week
	Cells	HD & PJ	Laborer 1.5 manhours/week
	Rail yard	HD & PJ	Laborer 2.0 manhours/week
	S.W.U.	HD & PJ	Laborer .75 manhours/week
	Vitt and associated trailers.	HD & PJ	Laborer 2.5 manhours/week
	AWWT area.	HD & PJ	Laborer 1.0 manhours/week
Snow and ice removal on paved walkways, stairway, building, and entrances (Snow Removal Avg. 30x/year).	East Trailer complex.	HD & PJ	Laborer 3.5 manhours/removal
	Parking lot sidewalk to rear of Admin Bldg.	HD & PJ	Laborer 4.0 manhours/removal

Maintenance Quantification Table Historical Data = (HD); Industry Standard = (IS); Composite of HD & IS = (Comp); Professional Judgement = (PJ)			
Activity	**Sub-Activity**	**Calc Type**	**Calculations**
	Cleanside of Service and H&S Bldgs.	HD & PJ	Laborer 5.0 manhours/removal
	Trailers 76, 77, 78, 79, 80, & 81.	HD & PJ	Laborer 3.0 manhours/removal
1.4.3)2 General Laborer (Continued)			
Snow and ice removal on paved walkways, stairway, building, and entrances (Snow Removal Avg. 30x/year). (Continued)	Trailers 25, 43, 44, 45, 46, East side of Bldg 15.	HD & PJ	Laborer 2.5 manhours/removal
	Lab Cleanside and courtyards, Trailers 61, 62, Little Mexico.	HD & PJ	Laborer 1.0 manhours/removal
	Trailers 29, 303, 304, 305, 502, 510, 516 520, 526, 529, 540.	HD & PJ	Laborer 3.5 manhours/removal
	Trailer 180, H20 tank, Parking Lot (Const)	HD & PJ	Laborer 0.5 manhours/removal
	Bldg 71, Plt 1 Pad Trailers/Tents, Chem Warehouse.	HD & PJ	Laborer 10.0 manhours/removal
	Hooperville Trailers 68, 168, Rad Point.	HD & PJ	Laborer 3.0 manhours/removal
	Old RIMIA	HD & PJ	Laborer 3.0 manhours/removal
	Trailers 66 and 69.	HD & PJ	Laborer 3.0 manhours/removal
	Bldg 68.	HD & PJ	Laborer 1.0 manhours/removal
	Rail yard	HD & PJ	Laborer 1.0 manhours/removal
	S.W.U.	HD & PJ	Laborer 3.0 manhours/removal
	Vitt and associated trailers.	HD & PJ	Laborer 28.0 manhours/removal
	AWWT area.	HD & PJ	Laborer 4.0 manhours/removal
	Hamilton Parking Lot	HD & PJ	Laborer 6.0 manhours/removal
	Cincinnati Parking Lot	HD & PJ	Laborer 6.0 manhours/removal
Minor repairs to parking lot and roadways. These repairs consist of repairing potholes. A pothole is defined as surface defect in asphalt or concrete with a size no larger then 3 feet x 3 feet x 4' inches. Pothole repairs are usually conducted in the spring. Under this situation, the Labor shop procures approximately 50 tons of material for pothole repair per fiscal year.		HD & PJ	Laborer 80, Mason 110 manhours/yr
Line striping of parking areas.		HD & PJ	Laborer 40 manhours/yr
Maintain signage along roadways (Approx. 400 signs throughout site)	Maintain signs and postings	HD & PJ	Laborer 1.5 manhours/week
	Weekly white sign changes	HD & PJ	Laborers 2 manhours/week.
Maintain three speed bumps, two on the north excess road and one on the side excess road.		HD & PJ	Laborer 40 manhours/yr (FY01 only)

Maintenance Quantification Table

Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity	Sub-Activity	Calc Type	Calculations
R1-D-799 Nominal repairs, including vegetation removal, to security/perimeter fence, DOE property boundary fence, and fencing around soil piles and buildings that have undergone safe/facility shutdown ~~to existing fences, excluding parameter fencing around D&D projects, (approx. 20,700 feet).~~		HD & PJ	Laborer 26 manhours/week
1.4.3)2 General Laborer (Continued)			
R1-D-801 Landscaping of the general areas around ~~south front entrance of~~ the administration area, including the general areas south and north of the Administration Building and the park area, to such time facilities closure or demolition activities commence.		HD & PJ	Laborer 16 manhours/week
Perform personnel moves, in support of Fluor Fernald Facility Infrastructure Integration and Closure Plan.	On site relocations	HD & PJ	3 Laborer FTEs
	Off site relocations	HD & PJ	3 Laborer FTEs
Record Center Support		HD & PJ	1 Laborer FTEs
NorthStar Support		HD & PJ	1 Laborer FTEs
Miscellaneous Labor Shop Support.	Support for hole digs	HD & PJ	Laborer 800 manhours/year
	Butt Hut Cleaning	HD & PJ	Laborer 60 manhours/year
	Equipment Prep/Fill Tanks	HD & PJ	Laborer 3 manhours/week
Labor Shop Management and Support Service		HD & PJ	2 Supv, .5 Planner, .4 Rad, and .4 IH FTEs
1.4.4)2 General Maintenance			
Perform estimate of 5 underground water main breaks per year. Perform estimate of 5 underground water main breaks per year. (Continued)	Pre-Job Resources per break	HD & PJ	Planner 20, Supv 1, Coord 4, Sched .5, UE 2, Rad 1, HEO 2, Labor 1, H&S 2, Pipefit 1 manhours/break
	Working-Job Resources per break	HD & PJ	Supv 20, HEO 40, Labor 20, Pipefit 20, Rad 20, IH 2, Eng 2, UE 2 manhours/break
	Post-Job Resources per break	HD & PJ	Supv 1, Sched .5, Eng 2, CAD 2, QA .5 manhours/break
Plan and conduct schedule outages of electrical services (480v and up). This activity involves the preventive and corrective maintenance of the main sub-station, 89 transformers, 20 sub-station units. The numbers of planned outages per year are 2	3 each 10,000KVA Transformers and LTCs	HD & PJ	Craft 40 manhours, .02 Supv, .03 Mgr Total FTEs
	3 each 138KV Oil Circuit Breakers	HD & PJ	Craft 80 manhours, .02 Supv, .03 Mgr Total FTEs
	8 each 13.2KV Air Circuit Breakers	HD & PJ	Craft 120 manhours, .40 Supv, .05 Mgr Total FTEs
	20 each 13.2KV/480V Unit Substation	HD & PJ	Craft 240 manhours, .08 Supv, .10 Mgr Total FTEs

Maintenance Quantification Table

Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity	Sub-Activity	Calc Type	Calculations
	13.2KV Feeders 2 and 3 aerial wiring, poles, and pole line equipment include 89 transformers and associated arresters/insulators	HD & PJ	Craft 800 manhours, .20 Supv, .20 Mgr Total FTEs
	13.2KV Feeders 1 and 1 underground cabling and equipment	HD & PJ	Craft 80 manhours, .02 Supv, .03 Mgr Total FTEs
	34.5KV aerial tie with Cinergy	HD & PJ	Craft 80 manhours, .02 Supv, .03 Mgr Total FTEs
	Scheduled repairs for 480V or less equipment and services; misc. work orders for installation and repair of facilities and equipment; lock & tag support	HD & PJ	.03 Supv, .06 Mgr Total FTEs
1.4.4)2 General Maintenance (Continued)			
Perform, Obtain/Coordinate Calibration of M&TE Equipment	Repair, install, and perform preventive maintenance on M&TE. House and maintain M&TE and M&TE certifications and records	HD & PJ	.12 Supv., .18 clerk, .46 craft, - subtotal = .75
Perform Calibrations of Equipment	52 Pressure Indicators	HD & PJ	Inst Mech 104 manhours, .06 Supv, .03 Mgr Total FTEs
	85 Test Equipment	HD & PJ	Inst Mech 340 manhours, .06 Supv, .03 Mgr Total FTEs
	65 Scales	HD & PJ	Inst Mech 520 manhours, .06 Supv, .03 Mgr Total FTEs
	48 Torque Wrench	HD & PJ	Inst Mech 768 manhours, .06 Supv, .03 Mgr Total FTEs
	Calibrated Weights	HD & PJ	Inst Mech 200, manhours, .06 Supv, .03 Mgr Total FTEs
	Ticket, W.O., Misc. Support	HD & PJ	Inst Mech 500 manhours, .10 Supv Total FTEs
	Repair and install radios. Maintain calibration of radios	HD & PJ	.09 Supv., .52 craft
Normal unplanned/unscheduled repair of electrical services 480v and up ~~less~~ on switchgear		HD & PJ	Craft 800 manhours, .3 Supv, .07 Mgr Total FTEs
Perform preventive & corrective maintenance of HEPA filtration devices equipment	Perform CMs and PMs and Integrity Tests on permanently installed units	HD & PJ	Craft 10,800 manhours, .50 Supv, .09 Mgr Total FTEs
	Maintain issuance and maintenance records for all HEPA units site wide.	HD & PJ	Clerk 1,200 manhours, .10 Supv, .10 Mgr Total FTEs

R1-D-802

Maintenance Quantification Table

Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

	Activity	Sub-Activity	Calc Type	Calculations
R1-D-802	Maintain the Site Tool Crib (~~3,000~~ 1,118 Pieces).	Approx 1.6 manhours per piece	HD & PJ	Craft 1,600 manhours, .05 Supv, .01 Mgr Total FTEs
R1-D-802	Inspect and issue fall protection equipment (~~365~~ 511 pieces).	Approx 3.1 manhours per piece	HD & PJ	Craft 1,400 manhours, .10 Supv, .02 Mgr Total FTEs
R1-D-802	Inspect and issue lifting equipment (~~1,656~~ 2,217 pieces).	Approx 0.77 manhours per piece	HD & PJ	Craft 1,400 manhours, .15 Supv, .02 Mgr Total FTEs
R1-D-802	Maintain issuance of records of equipment ~~(2,021)~~(3,846).	Approx 0.7 manhours per piece	HD & PJ	Craft 1,400 manhours, .10 Supv, .01 Mgr Total FTEs
R1-D-802	Annual inspection of government owned hoists, jacks, cranes (gantry, overhead, chainfalls, lever operated hoists, etc.), under hook lifting devices (UHLD), retractable lanyards sitewide (~~101~~ 2,728 pieces).	Approx 2.4 manhours per piece	HD & PJ	Craft 6,300, manhours, .10 Supv, .02 Mgr Total FTEs
	1.4.4)2 General Maintenance (Continued)			
	Perform rigging activities as requested by the projects		HD & PJ	Craft 1,500 manhours, .25 Supv, .04 Mgr Total FTEs
	Develop rigging plans as requested by the projects and rigging & tool services management		HD & PJ	Craft 1,500 manhours, .25 Supv, .04 Mgr Total FTEs
	Normal planned/scheduled or unplanned/unscheduled repair of air lines, steam lines, water line, gas lines, sewage		HD & PJ	Planner 1100, Coord 200, Supv 1000, Sched 300, Pipefit 2800, UE 150, Rad 250, IH 150 manhours, .80 Supv, .10 Mgr Total FTEs
	Perform minor asbestos repairs	Perform 17 minor repairs	HD & PJ	Planner 200, Supv 800, Pipefit 1000, Sched 80, IH 200 Rad 200 Coord 40 manhours, .15 supv, .1 Mgr Total FTEs
	Properly package asbestos waste for disposal	From 17 minor asbestos repairs	HD & PJ	Planner 80, Supv 120, Pipefit 300, IH 80, Rad 60, Sched 40, Hazwat 40 manhours, .05 Supv, .05 Mgr Total FTEs
	Steam Outages Planned/Unplanned (2 planned, 1 unplanned total).		HD & PJ	Planner 120, Coord 24, Supv 54, IH 24, Rad 48, H&S 6, UE 30, Elec 48, Pipefit 300, QA 16, Sched 12 total manhours, .05 Supv, .05 Mgr Total FTEs
R1-D-608	Perform preventative, corrective, and ticket maintenance on ~~non-project~~ facilities and non-project equipment	PMs and CMs on permanent administrative area facilities	HD & PJ	Total FY00 manhours (by craft) charged to Bldgs 11, 14, 15, and 53A&B for PMs and CMs, and adjust based on supervisor experience. Calc = Avg Craft .95 FTE/facility, .70 Supv, .20 Mgr total FTEs

Maintenance Quantification Table

Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity	Sub-Activity	Calc Type	Calculations
	PMs and CMs on permanent controlled area facilities	HD & PJ	Total FY00 manhours (by craft) charged to Plant 1 Pad and ~~Bldgs 1,~~ 30, 31, 45, 46, 56, 64, 65, 68, 71, 77, 79, 80, and 94 for PMs and CMs, and adjust based on supervisor experience. Calc = Avg Craft .6 FTE/facility, .70 Supv, .30 Mgr Total FTEs
	Tickets on permanent administrative area facilities	HD & PJ	Total FY00 manhours (by craft) charged to Bldgs 11, 14, 15, and 53A&B for tickets, and adjust based on supervisor experience. Calc = Avg Craft .4 FTE/facility, .40 Supv, .20 Mgr Total FTEs
	Tickets on permanent controlled area facilities	HD & PJ	Total FY00 manhours (by craft) charged to Plant 1 Pad and Bldgs ~~1,~~ 30, 31, 45, 46, 56, 64, 65, 68, 71, 77, 79, 80, and 94 for tickets, and adjust based on supervisor experience. Calc = Avg Craft .35 FTE/facility, .45 Supv, .30 Mgr Total FTEs
1.4.4)2 General Maintenance (Continued)			
Perform preventative, corrective, and ticket maintenance on non-project facilities and equipment (Continued)	PMs, CMs, and Tickets on ~~permanent~~ administrative area ~~facilities~~ trailers (78 trailers)	HD & PJ	Total FY00 manhours (by craft) charged to 78 trailers for PMs, CMs, and tickets, and adjust based on supv. experience. Calc = Avg Craft .1 FTE/trailer, .40 Supv, .10 Mgr Total FTEs
	PMs, CMs, and Tickets on ~~permanent~~ controlled area ~~facilities~~ trailers, (16 trailers)	HD & PJ	Total FY00 manhours (by craft) charged to 16 trailers for PMs, CMs, and tickets, and adjust based on supv. experience. Calc = Avg Craft .1 TE/trailer, .20 Supv, .10 Mgr Total FTEs
Perform facility closure functions (start date 3 quarter FY01)	Building 53A – oilers drain from pumps, valves, e.g. CTC, IM – remove freon and mercury from equipment, PF – disconnect drinking fountains, EL – remove light bulbs and ballast. Disconnect any salvageable equipment. GL – remove salvageable equipment and records management. MW – remove, dismantle 5 fume hoods, and 1 X-ray equipment.	PJ	Oilers - 240 man-hours, Inst. Mechanics – 320 manhours, Pipefitters - 160 man-hours, Electricians - 320 man-hours, Transportation – 30 man-hours, General Laborer - 240 man-hours, Estimator - 140 man-hours, Supervisor – 240 man-hours, Engineering - 20 man-hours, Rad Tech – 110 man-hours, IH Tech - 12 man-hours, MW – 320 man-hours

R1-D-608

Maintenance Quantification Table

Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity	Sub-Activity	Calc Type	Calculations
Scenario 6	Building B-11 - oilers drain from pumps, valves, e.g. CTC, IM – remove freon and mercury from equipment, PF – disconnect drinking fountains, EL – remove light bulbs and ballast. Disconnect any salvageable equipment. GL – remove salvageable equipment and records management. MW – remove exercise equipment and laundry equipment	PJ	Oilers - 240 man-hours, Inst. Mechanics – 320 manhours, Pipefitters - 160 man-hours, Laborers - 160 man-hours, Electricians – 320 man-hours, Transportation - 30 man-hours, General Laborer - 240 man-hours, Estimator – 140 man-hours, Supervisor - 240 man-hours, Engineering - 20 manhours, Rad Tech - 110 man-hours, IH Tech - 12 man-hours MW – 320 man-hours
	Building B-14 - oilers drain from pumps, valves, e.g. CTC, IM – remove freon and mercury from equipment, PF – disconnect drinking fountains, EL – remove light bulbs and ballast. Disconnect any salvageable equipment. GL – remove salvageable equipment, printer, and records management.	PJ	Oilers - 240 man-hours, Inst. Mechanics - 320 man-hours, Pipefitters - 160 man-hours, Laborers - 160 man-hours, Electricians - 320 man-hours, Transportation - 30 man-hours, General Laborer - 240 man-hours, Estimator - 140 man-hours, Supervisor - 240 man-hours, Engineering - 20 man-hours, Rad Tech - 110 man-hours, IH Tech - 12 man-hours
1.4.4)2 General Maintenance (Continued)			
Scenario 6 (Continued)	Building 30/45		Electricians 120 man-hours, Oilers 40 man-hours, Pipefitters 40 man-hours, IM 60 man-hours, MW 40 man-hours, Labourers 80 man-hours, Supersiors 120 man-hours, Planners 12 man-hours, IH techs 5 man-hours, Schedulers 2 man-hours, Rad techs 40 man-hours
	Boiler/Water Treatment		Electricians 20 man-hours, Oilers 40 man-hours, Pipeftters 60 man-hours, Rad techs 4 man-hours, IH techs 4 man-hours, Supervisor 20 man-hours, Planners 20 man-hours, Schedulers 2 man-hours
	Building 30A		Electricians 30 man-hours, Instrument Mechanics 14 man-hours, Millwright12 man-hours, Oilier 10 man-hours, Rad Techs 8 man-hours, IH TECH, 1 man-hour Supervisor 10 man-hours Planners 6 man-hours, Schedulers 3 man-hours

Maintenance Quantification Table Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)			
Activity	**Sub-Activity**	**Calc Type**	**Calculations**
	Building 56		Electricians 30 man-hours, Instrument Mechanics 4 man-hours, Millwright 8 man-hours, Oilier 10 man-hours, Rad Techs 8 man-hours, IH tech 1 man-hour, Supervisor 10 man-hours, Planners 6 man-hours, Schedulers 3 man-hours
	Building 64/64		Electricians 40 man-hours, Instrument Mechanics 4 man-hours, Millwright 8 man-hours, Oilier 15 man-hours, Supervisor 10 man-hours, Rad Techs 10 man-hours, IH tech 1 man-hours, Planners 6 man-hours, Schedulers 3 man-hours,
	Building 68		Electricians 30 man-hours, Instrument Mechanics 10 man-hours, Millwrights 4 man-hours, Oilier 20 man-hours, Supervisor 10 man-hours, Rad Techs 4 man-hours, IH tech 1 man-hours, Planners 6 man-hours, Schedulers 3 man-hours
	Building 71		Electricians 30 man-hours, Oilier 10 man-hours, Supervisor 10 man-hours, Rad Techs 4 man-hours, IH tech 1 man-hours, Planners 6 man-hours, Schedulers 3 man-hours
1.4.4)2 General Maintenance (Continued)			
Scenario 6 (Continued)	Building 77		Electricians 30 man-hours, Supervisor 10 man-hours, Rad Techs 2 man-hours, IH tech 1 man-hours, Planners 4 man-hours, Schedulers 2 man-hours
	Building 79		Electricians 30 man-hours, Oilier 12 man-hours, Supervisor 10 man-hours, Rad Techs 2 man-hours, IH tech 1 man-hours, Planners 4 man-hours, Schedulers 2 man-hours
	Building 80		Electricians 30 man-hours, Instrument Mechanics 4 man-hours, Millwright 8 man-hours, Oiliers 10 man-hours, Supervisor 10 man-hours, Rad Techs 2 man-hours, IH tech 1 man-hours, Planners 4 man-hours, Schedulers 2 man-hours

Maintenance Quantification Table

Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity	Sub-Activity	Calc Type	Calculations
	Building 26A		Electricians 8 man-hours, Oilers 24 man-hours, Pipefitters 10 man-hours Rad techs 4 man-hours, Supervisors 20 man-hours, Planners 6 man-hours, IH Techs 5 man-hours, Schedulers 2 man-hours
	Building 26D		Electricians 2 man-hours, Oilers 10 man-hours, Rad techs 2 man-hours, Supervisor 4 man-hours, Planners 4 man-hours, Schedulers 2 man-hours
	Building 26C		Oilers 10 man-hours, Millwright 10 man-hours, Supervisors 5 man-hours, Rad techs 2 man-hours, IH Techs 4 man-hours, Planners 4 man-hours, Schedulers 2 man-hours
	TS-4		Electricians 30 man-hours, Millwright 8 man-hours, Oilier 14 man-hours, Supervisor 10 man-hours, Rad Techs 2 man-hours, IH tech 1 man-hours, Planners 4 man-hours, Schedulers 2 man-hours
	TS-5		Electricians 30 man-hours, Millwright 4 man-hours, Oilier 14 man-hours, Rad Techs 2 man-hours, IH tech 0 man-hours, Planners 4 man-hours, Schedulers 2 man-hours
.4.4)2 General Maintenance (Continued)			
Scenario 6 (Continued)	TS-6		Electricians 30 man-hours, Millwright 4 man-hours, Oilier 14 man-hours, Supervisor 10 man-hours, Rad Techs 2 man-hours, IH tech 0 man-hours, Planners 4 man-hours, Schedulers 2 man-hours
173 Singe unit trailers	Trailer facility closure remove bulbs and ballast, freon, records, fire extinguishers, furniture equipment and disconnect drinking fountain if trailer has fountain	PJ	1 EL 2 man-hours, 1 IM 6 man-hours, 1 GL 1 man-hour w/o furniture, 2 GL – 1 man-hour w/furniture, 1 PF – 1 man-hour
44 Double unit trailers	Trailer facility closure remove bulbs and ballast, freon, records, fire extinguishers, furniture equipment and disconnect drinking fountain if trailer has fountain	PJ	1 EL 4 man-hours, 1 IM 12 man-hours, 1 GL 2 man-hour w/o furniture, 1 GL – 4 man-hour w/furniture, 1 PF – 2 man-hour

Maintenance Quantification Table

Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity	Sub-Activity	Calc Type	Calculations
3 Triplex Trailers	Trailer facility closure remove bulbs and ballast, freon, records, fire extinguishers, furniture equipment and disconnect drinking fountain if trailer has fountain	PJ	1 EL 6 man-hours, 1 IM 18 man-hours, 1 GL 3 man-hour w/o furniture, 1 GL – 6 man-hour w/furniture, 1 PF – 3 man-hour
4 – Four-plex Trailers	Trailer facility closure remove bulbs and ballast, freon, records, fire extinguishers, furniture equipment and disconnect drinking fountain if trailer has fountain	PJ	1 EL 8 man-hours, 1 IM 24 man-hours, 1 GL 4 man-hour w/o furniture, 1 GL – 8 man-hour w/furniture, 1 PF – 4 man-hour
2 – Seven-plex Trailers	Trailer facility closure remove bulbs and ballast, freon, records, fire extinguishers, furniture equipment and disconnect drinking fountain if trailer has fountain	PJ	1 EL 14 man-hours, 1 IM 42 man-hours, 1 GL 7 man-hour w/o furniture, 1 GL – 14 man-hour w/furniture, 1 PF – 7 man-hour
1 – Ten-plex Trailer	Trailer facility closure remove bulbs and ballast, freon, records, fire extinguishers, furniture equipment and disconnect drinking fountain if trailer has fountain	PJ	1 EL 20 man-hours, 1 IM 60 man-hours, 1 GL 10 man-hour w/o furniture, 1 GL – 20 man-hour w/furniture, 1 PF – 10 man-hour
Perform corrective maintenance on the site fleet of 170 roll-off boxes	72 repairs per year for FY01 and FY02 40 repairs per year for FY03 through FY06 10 repairs per year for FY07 and FY08	PJ	0.2 FTE MAINT MGR, 0.8 FTE Millwright, 0.2 FTE Welder, 0.2 FTE Rad Tech

R1-F01-041

R1-F01-003

The D&D Schedule				
PLANT 1 –Phase II				
1B	Plant 1 Storage Shelter	Plant 1 Complex - Phase II	Oct. 2005	
16N	Plant 1 Substation	Plant 1 Complex - Phase II	Sep. 2006	
20A	Pump Station & Power Center	Plant 1 Complex - Phase II	Oct. 2005	
30A	Chemical Warehouse	Plant 1 Complex - Phase II	Oct. 2005	
56A	CP Storage Warehouse	Plant 1 Complex - Phase II	Oct. 2005	
71	General In-Process Warehouse	Plant 1 Complex - Phase II	Oct. 2005	
TS-04	Tension Support Structure # 4	Plant 1 Complex - Phase II	Oct. 2005	
TS-05	Tension Support Structure # 5	Plant 1 Complex - Phase II	Oct. 2005	
TS-06	Tension Support Structure # 6	Plant 1 Complex - Phase II	Oct. 2005	
PLANT 2 COMPLEX				
2A	Ore Refinery Plant	Plt. 2 Complex	Oct. 2001	
2D	Metal Dissolver Bldg.	Plt. 2 Complex	Oct. 2001	
2F	Cold Side Ore Conveyer	Plt. 2 Complex	Oct. 2001	
2H	Conveyor Tunnel (From Plant 1)	Plt. 2 Complex	Oct. 2001	
PLANT 3 COMPLEX				
3B	Ozone Bldg.	Plt. 3 Complex	Oct. 2001	
3C	NAR Control House	Plt. 3 Complex	Oct. 2001	
3D	NAR Towers	Plt. 3 Complex	Oct. 2001	
3E	Hot Raffinate Bldg.	Plt. 3 Complex	Oct. 2001	
3J	Combined Raffinate Tanks	Plt. 3 Complex	Oct. 2001	
3K	Old Cooling Water Tower	Plt. 3 Complex	Oct. 2001	
39A	Incinerator Bldg.	Plt. 3 Complex	Oct. 2001	
22E	Utility Trench to Pit Area	Plt. 3 Complex	Oct. 2001	
PLANT 5 COMPLEX				
5A	Metals Production Plant	Plt. 5 Complex	Oct. 2000	
5D	West Derby Breakout/Slag Milling	Plt. 5 Complex	Oct. 2000	
PLANT 6 COMPLEX				
6A	Metals Fabrication Plant	Plt. 6 Complex	Oct. 2000	
6G	Plant 6 Sump Bldg.	Plt. 6 Complex	Oct. 2000	
PLANT 8 COMPLEX				
8A	Recovery Plant	Plt. 8 Complex	Oct. 2001	
8B	Plant 8 Maintenance Bldg.	Plt. 8 Complex	Oct. 2001	
8C	Rotary Kiln/Drum Reconditioning Bldg.	Plt. 8 Complex	Oct. 2001	
8D	Plant 8 Railroad Filter Bldg.	Plt. 8 Complex	Oct. 2001	
8E	Drum Conveyer Shelter	Plt. 8 Complex	Oct. 2001	
8G	Trash Compactor Area	Plt. 8 Complex	Oct. 2001	
8H	Soil Washing Building	Plt. 8 Complex	Oct. 2001	
ADMINISTRATION COMPLEX				
11	Services Building	Admin. Complex	Oct. 2004	
14A	Administration Building	Admin. Complex	Oct. 2004	
14B	Bldg. 14 EOC Generator Set	Admin. Complex	Oct. 2004	
53A	Health & Safety Building	Admin. Complex	Oct. 2004	
53B	INVIVO Bldg.	Admin. Complex	Oct. 2004	
20K	New Admin. Area Cooling Towers	Admin. Complex	Oct. 2004	

The D&D Schedule				
EAST WAREHOUSE COMPLEX				
20D	Elevated Potable Storage Tank	E. Warehouse Complex	Oct. 2005	
77	Finished Products Warehouse (4A)	E. Warehouse Complex	Oct. 2005	
79	Plant 6 Warehouse	E. Warehouse Complex	Oct. 2005	
82A	RIMIA	E. Warehouse Complex	Oct. 2005	
ELECTRICAL STATION COMPLEX				
31A	Vehicle Repair Garage	Electrical Station Complex	Oct. 2004	
46	Heavy Equipment Bldg.	Electrical Station Complex	Oct. 2004	
GENERAL SUMP COMPLEX				
2B	General/Refinery Sump Control Bldg.	General Sump Complex	Oct. 2001	
2C	Bulk Lime Handling Bldg.	General Sump Complex	Oct. 2001	
3A	Maintenance Bldg.	General Sump Complex	Oct. 2001	
3H	Refinery Sump	General Sump Complex	Oct. 2001	
3L	Electrical Power Center Bldg.	General Sump Complex	Oct. 2001	
18B	General Sump	General Sump Complex	Oct. 2001	
18D	Biodenitrification Towers	General Sump Complex	Oct. 2001	
18H	BDN Effluent Treatment Facility	General Sump Complex	Oct. 2001	
LABORATORY COMPLEX				
15A	Laboratory Building	Laboratory Complex	Oct. 2004	
15B	Laboratory Chemical Storage	Laboratory Complex	Oct. 2004	
15C	Laboratory Garage	Laboratory Complex	Oct. 2004	
LIQUID STORAGE COMPLEX				
26A	Pump House - HP Fire Protection	Liquid Storage Complex	Oct. 2002	
26B	Elevated Storage Water Tank	Liquid Storage Complex	Oct. 2002	
28D	Guard Post on West End of 2nd St.	Liquid Storage Complex	Oct. 2002	
45A	Maintenance (Former Rust Engr. and Construction Div. Bldg.)	Liquid Storage Complex	Oct. 2004	
80	Plant 8 Warehouse	Plant 8 Complex	Mar. 2004	
PILOT PLANT COMPLEX				
13A	Pilot Plant Wet Side	Pilot Plant Complex	Oct. 2003	
13B	Pilot Plant Maintenance Bldg.	Pilot Plant Complex	Oct. 2003	
13C	Sump Pump House	Pilot Plant Complex	Oct. 2003	
13D	Pilot Plant Thorium Tank Farm	Pilot Plant Complex	Oct. 2003	
37	Pilot Plant Annex	Pilot Plant Complex	Oct. 2003	
54A	6 to 4 Reduction Facility	Pilot Plant Complex	Oct. 2003	
54B	Pilot Plant Shelter/Warehouse	Pilot Plant Complex	Oct. 2003	
54C	Pilot Plant Dissociator Shelter	Pilot Plant Complex	Oct. 2003	
OU1 COMPLEX				
24C	Locomotive Maintenance Bldg	OU1 Complex	Oct. 2005	
Railroad Tracks	Railroad Tracks	OU1 Complex	Oct. 2006	
MISCELLANEOUS STRUCTURES				
5F	Plant 5 Covered Storage Pad	Plt. 5 Complex (Contract option)	Oct. 2004	
12E	Maintenance Laborer Storage Bldg.	OU5 Complex	Oct. 2007	
12F	Maintenance Laborer Storage Bldg.	OU5 Complex	Oct. 2007	

The D&D Schedule				
MISCELLANEOUS STRUCTURES (Continued)				
12G	Restored Area Maintenance Bldg.	OU5 Complex	Oct. 2007	
16B	Electrical Substation	Electrical Station Complex	Oct. 2005	
16C	Electrical Panels & Transformer	Electrical Station Complex	Oct. 2005	
16F	Trailer Substation #1	Electrical Station Complex	Oct. 2005	
16G	Trailer Substation #2	Electrical Station Complex	Oct. 2005	
16H	10 Plex's North Substation	Admin. Complex	Oct. 2008	
16J	10 Plex's South Substation	Admin. Complex	Oct. 2008	
20E	Well House #1	Liquid Storage Complex	Oct. 2007	
20F	Well House #2	Liquid Storage Complex	Oct. 2007	
20G	Well House #3	Liquid Storage Complex	Oct. 2007	
22B	Storm Sewer Lift Station	Liquid Storage Complex	Oct. 2005	
22D	Scale House & Weigh Scale	Liquid Storage Complex	Oct. 2005	
23	Meteorological Tower	Admin. Complex	Oct. 2007	
25C	Sewage Lift Station Bldg.	OU5 Complex	Oct. 2007	
25J	10 Plexs Sewage Lift Station	Admin. Complex	Oct. 2007	
26C	Main Elect. Substation Riser/Strainer House	Electrical Station Complex	Oct. 2007	
28E	Guard Post at OSDF South Entrance (formerly @T81)	Admin. Complex	Oct. 2004	
28G	Guard Post NW of Bldg. 45 (T327)	Admin. Complex	Oct. 2004	
28H	Guard Post South of K-65 Area	OU5 Complex	Apr. 2008	
28J	Security Checkpoint (South Access Rd.)	Admin. Complex	Oct. 2005	
28K	Security Checkpoint (E. Park. Lot)	Admin. Complex	Oct. 2007	
28L	Guard Post (N. Const. Access Rd)	Admin. Complex	Oct. 2007	
28M	Guard Post on "F" Street	Admin. Complex	Oct. 2007	
30D	Sampling Line Processing	Admin. Complex	Oct. 2005	
50	Maintenance Storage Building	Admin. Complex	Oct. 2007	
52A	RTRAK Building	Admin. Complex	Oct. 2008	
52B	ASTD SCEP Building	Admin. Complex	Oct. 2008	
60	Quonset Hut # 1	Plant 1 Complex - Phase II	Oct. 2005	
61	Quonset Hut # 2	Plant 1 Complex - Phase II	Oct. 2005	
62	Quonset Hut # 3	Plant 1 Complex - Phase II	Oct. 2005	
64	Thorium Warehouse	Maint./Tank Farm Complex	Oct. 2004	
65	Old Plant 5 Warehouse	Maint./Tank Farm Complex	Oct. 2004	
68	Pilot Plant Warehouse	Pilot Plant Complex	Oct. 2007	
93A	Southwest Boiler House	OU5 Complex	Oct. 2005	
G-008	Pipe Bridges	Various complexes	Oct. 2005	
TS-08	Environ. Monitor. Equip. Storage	Admin. Complex	Oct. 2007	
T1	FDF	Admin. Complex	Oct. 2005	4 Plex
T2	Rad Safety	Admin. Complex	Oct. 2005	Single
T3	Wise Construction	Admin. Complex	Oct. 2005	Single
T4	FDF Training	Admin. Complex	Oct. 2005	Single

The D&D Schedule				
MISCELLANEOUS STRUCTURES (Continued)				
T5	FDF Construction	Admin. Complex	Oct. 2005	Single
T6	Restrooms	Admin. Complex	Oct. 2005	Single
T7	FDF	Admin. Complex	Oct. 2005	Single
T8	Wise Construction	Admin. Complex	Oct. 2005	Single
T12	CRU4 (DLS)	OU4 Complex	Oct. 2008	Single
T17	FDF	Admin. Complex	Oct. 2005	Single
T18	Break Trailer	Admin. Complex	Oct. 2005	Double
T19	Rad Safety	Admin. Complex	Oct. 2005	Single
T23	10 Plex	Admin. Complex	Oct. 2005	10 Plex
T24	7 Plex North	Admin. Complex	Oct. 2005	7 Plex
T25	7 Plex South	Admin. Complex	Oct. 2006	7 Plex
T26	Waste Management	Plant 1 Complex - Phase II	Oct. 2006	Single
T29	Computer	Admin. Complex	Oct. 2006	Single
T30	Computer	Admin. Complex	Oct. 2006	Single
T33	Shipping Office	OU1 Complex	Oct. 2006	Single
T34	FDF	Plant 1 Complex - Phase II	Oct. 2006	Single
T35	FDF	OU5 Complex	Oct. 2006	Double
T36	Heavy Equip. Operators	Admin. Complex	Oct. 2006	Single
T40	Thorium Overpack	Admin. Complex	Oct. 2006	Single
T41	Waste Certification (QA)	Admin. Complex	Oct. 2006	Single
T42	Respirator Washing Facility	Admin. Complex	Oct. 2006	Single
T43	Restoration	Maint./Tank Farm Complex	Oct. 2006	Double
T44	FDF Maintenance	Plant 1 Complex - Phase II	Oct. 2008	Double
T45	Environmental Monitoring	Admin. Complex	Oct. 2008	Double
T46	Environmental Monitoring	Admin. Complex	Oct. 2006	Double
T49	Bio-Assay Semi-Trailer	Admin. Complex	Oct. 2006	Single
T50	Rad Safety	Admin. Complex	Oct. 2006	Single
T57	Rad Safety	Admin. Complex	Oct. 2006	Double
T58	Construction Office	Admin. Complex	Oct. 2006	Double
T59	FDF Waste Management	Admin. Complex	Oct. 2006	Single
T60	DOE Field Office	Admin. Complex	Oct. 2006	Single
T61	Startup Group	Admin. Complex	Oct. 2006	Single
T62	Startup Group	Admin. Complex	Oct. 2006	Single
T65	Plant 1 Pad MC&A Office	Plant 1 Complex - Phase II	Oct. 2006	Single
T66	RIMIA Tri-Plex	OU4 Complex	Oct. 2006	Tri Plex
T67	Rad. Tech.	Admin. Complex	Oct. 2006	Single
T68	CRU1 Office	Admin. Complex	Oct. 2006	
T69	Control Point - RIMIA	Plant 1 Complex - Phase II	Oct. 2006	Single
T71	Safe Shutdown	E. Warehouse Complex	Oct. 2006	Single
T72	Safe Shutdown	OU1 Complex	Oct. 2006	Single
T74	ARASA Changeout Facility	OU1 Complex	Oct. 2006	
T75	Multimedia Services	E. Warehouse Complex	Oct. 2006	Single
T82	Capital Project	Admin. Complex	Oct. 2006	Double

The D&D Schedule				
MISCELLANEOUS STRUCTURES (Continued)				
T83	Capital Project	Admin. Complex	Oct. 2006	Double
T84	Capital Project	Admin. Complex	Oct. 2006	Double
T85	Capital Project	Admin. Complex	Oct. 2006	Double
T86	Capital Project	Admin. Complex	Oct. 2006	Double
T87	Capital Project	Plant 5 Complex	Oct. 2006	Double
T89	WPA Mens Changeout	Plant 5 Complex	Oct. 2006	Single
T90	WPA Womens Changeout	Plant 5 Complex	Oct. 2006	Single
T91	WPA Mens Changeout	Plant 5 Complex	Oct. 2006	Single
T92	WPA Breakroom	OU4 Complex	Oct. 2006	Single
T93	Radiation Control Unit Quad	Plant 1 Complex - Phase II	Oct. 2006	4 Plex
T94	Radiation Control Unit Quad	Plant 6 Complex	Oct. 2007	4 Plex
T95	Radiation Control Unit Quad	Plant 5 Complex	Oct. 2007	4 Plex
T96	Radiation Control	General Sump Complex	Oct. 2007	Double
T97	FDF Office (CRU4)	OU5 Complex	Oct. 2007	Single
T98	OSDF	OU4 Complex	Oct. 2007	Single
T100	FDF Office	OU5 Complex	Oct. 2007	Single
T103	Storage	OU4 Complex	Oct. 2007	Single
T108	IAWWTF	Admin. Complex	Oct. 2007	Single
T109	IAWWTF	Admin. Complex	Oct. 2007	Single
T117	CRU4 Construction Support Office	OU5 Complex	Oct. 2007	Double
T118	CRU4 Support Office	OU5 Complex	Oct. 2007	Double
T119	Restrooms	OU5 Complex	Oct. 2007	Single
T121	FDF Office	OU4 Complex	Oct. 2007	Single
T122	Storage	OU4 Complex	Oct. 2007	Single
T127	OEPA (Part of T68)	OU4 Complex	Oct. 2007	
T128	Mixed Waste	OU4 Complex	Oct. 2007	Double
T129	OEPA (Part of T68)	OU4 Complex	Oct. 2007	
T130	Breakroom	Admin. Complex	Oct. 2007	Double
T131	Breakroom	OU1 Complex	Oct. 2007	Double
T132	Kelchner Office	Plant 6 Complex	Oct. 2007	Single
T135	Boiler Maintenance	OU1 Complex	Oct. 2007	Single
T138	Southern Waste Unit Site Prep. Grp	Plant 6 Complex	Oct. 2007	Double
T139	Southern Waste Unit Site Prep. Grp	Plant 6 Complex	Oct. 2007	Double
T141	Maintenance Storage	OU5 Complex	Oct. 2007	Single
T142	Maintenance Storage	OU5 Complex	Oct. 2007	Single
T164	FDF Training	OU4 Complex	Oct. 2007	Double
T165	FDF Training	OU5 Complex	Oct. 2007	Double
T166	Industrial Relations	OU5 Complex	Oct. 2007	Double
T167	Industrial Relations	Admin. Complex	Oct. 2007	Double
T168	ARASA Contractor	Admin. Complex	Oct. 2007	Double
T169	ARASA Contractor	Admin. Complex	Oct. 2007	Double
T170	ARASA Contractor	Admin. Complex	Oct. 2007	Double
T171	ARASA Contractor	OU1 Complex	Oct. 2007	Double
T172	FCNDP	OU1 Complex	Oct. 2007	Double

The D&D Schedule				
MISCELLANEOUS STRUCTURES (Continued)				
T173	FCNDP	OU1 Complex	Oct. 2007	Double
T174	FCNDP	OU1 Complex	Oct. 2007	Double
T175	FCNDP	OU5 Complex	Oct. 2007	Double
T176	FCNDP	OU5 Complex	Oct. 2007	Double
T177	FCNDP	OU5 Complex	Oct. 2007	Double
T178	FCNDP	OU5 Complex	Oct. 2007	Double
T179	FCNDP	OU5 Complex	Oct. 2007	Double
T181	FDF Office	OU5 Complex	Oct. 2005	Double
T182	FDF Office	OU5 Complex	Oct. 2005	Double
T183	FDF Office	OU5 Complex	Oct. 2005	Double
T186	OSDF Office Trailer	Admin. Complex	Oct. 2007	Single
T191	Breakroom/Cooldown	Admin. Complex	Oct. 2007	Single
T301	IT Corp.	Admin. Complex	Oct. 2007	Single
T305	Environmental Monitoring	OU5 Complex	Oct. 2008	Double
T306	Environmental Monitoring	OU4 Complex	Oct. 2007	Single
T312	Cell 1 Personal Cool Down	OU1 Complex	Oct. 2005	Single
T313	ARASA Admin. Office "A"	OU5 Complex	Oct. 2005	Tri Plex
T314	ARASA Admin. Office "B"	OU5 Complex	Oct. 2005	Tri Plex
T315	ARASA Laboratory Office	OU5 Complex	Oct. 2005	Single
T316	ARASA Laboratory "A"	OU5 Complex	Oct. 2005	Single
T317	ARASA Laboratory "B"	OU5 Complex	Oct. 2005	Single
T318	ARASA MHB/RCLO Pow. Mod. Bld	OU1 Complex	Oct. 2005	Single
T319	ARASA Breakroom	Admin. Complex	Oct. 2005	Single
T320	ARASA Laun./Resp. wash facility	Plant 1 Complex - Phase II	Oct. 2005	Double
T321	ARASA MHB Rad. Cont. Trailer	Plant 8 Complex	Oct. 2005	Single
T322	ARASA Supervisor's Office	Plant 8 Complex	Oct. 2005	Single
T323	ARASA Control Room	Plant 8 Complex	Oct. 2005	Single
T325	ARASA GCS/WTS Pow. Mod. Bldg	Plant 1 Complex - Phase II	Oct. 2005	Single
T326	ARASA Cont. Emissions Mon. Tr.	Admin. Complex	Oct. 2005	Single
T327	Weigh Scale Ticket Office	Plant 8 Complex	Oct. 2005	Single
T330	Doffing Trailer	Admin. Complex	Oct. 2005	Single
T502	IT Corp. ARASA	OU4 Complex	Oct. 2005	
T505	Facilities Shutdown Break Trailer	Admin. Complex	Oct. 2005	Single
T506	Office	Admin. Complex	Oct. 2005	Single
T512	Break-M. Ravenscraft	OU5 Complex	Oct. 2005	Single
T513	Construction Coordinators	OU5 Complex	Oct. 2005	Single
T514	Construction (Conference Room)	General Sump Complex	Oct. 2005	Single
T520	S&W Office	General Sump Complex	Oct. 2008	Single
T529	Storage	OU5 Complex	Oct. 2005	
T540	Triplex - Porter Breakroom	Plant 1 Complex - Phase II	Oct. 2005	Double
T603	Storage - Semi Trailer	OU5 Complex	Oct. 2005	Single
T604	Maintenance Storage Semi Trailer	OU5 Complex	Oct. 2005	Single
T608	Break Trailer - Waste Management	OU5 Complex	Oct. 2005	Single

The D&D Schedule			
SOILS PROJECT (NOT IN D&D SCOPE OF WORK)			
18A	BDN Surge Lagoon	At-/Below-Grade D&D by SCEP (Area 6)	(See SCEP Area Excavation Schedule)
18C	Coal Pile Runoff Basin	At-/Below-Grade D&D by SCEP (Area 3A)	(See SCEP Area Excavation Schedule)
18E	Storm Water Retention Basins	At-/Below-Grade D&D by SCEP (Areas 5 & 7)	(See SCEP Area Excavation Schedule)
18W	S.W.U. Retention Basin	OU5 Complex	(See SCEP Area Excavation Schedule)
20J	Lime Slurry Pits	At-/Below-Grade D&D by SCEP (Area 7)	(See SCEP Area Excavation Schedule)
21A	Haul Road Wheel Wash Facility	OU2/SCEP	(See SCEP Area Excavation Schedule)
21B	OSDF Wheel Wash Facility	OU2/SCEP	(See SCEP Area Excavation Schedule)
22C	Truck Scale	At-/Below-Grade D&D by SCEP (Area 4A)	(See SCEP Area Excavation Schedule)
22G	Main Gate Truck Scale	OU2/SCEP	(See SCEP Area Excavation Schedule)
24D	Railroad Inspection Pit	OU2/SCEP	(See SCEP Area Excavation Schedule)
31B	Old Truck Scale	At-/Below-Grade D&D by SCEP (Area 5)	(See SCEP Area Excavation Schedule)
74A	Plt. 2 East Pad	At-/Below-Grade D&D by SCEP (Area 4B)	(See SCEP Area Excavation Schedule)
74B	Plt. 2 West Pad	At-/Below-Grade D&D by SCEP (Area 4B)	(See SCEP Area Excavation Schedule)
74C	Plt. 8 East Pad	At-/Below-Grade D&D by SCEP (Area 4B)	(See SCEP Area Excavation Schedule)
74D	Plt. 8 West Pad	At-/Below-Grade D&D by SCEP (Area 4B)	(See SCEP Area Excavation Schedule)
74E	Plt. 4 Pad	At-/Below-Grade D&D by SCEP (Area 4A)	(See SCEP Area Excavation Schedule)
74F	Plt. 7 Pad	At-/Below-Grade D&D by SCEP (Area 4A)	(See SCEP Area Excavation Schedule)
74G	Plt. 5 East Pad	At-/Below-Grade D&D by SCEP (Area 4A)	(See SCEP Area Excavation Schedule)
74H	Plt. 5 South Pad	At-/Below-Grade D&D by SCEP (Area 4A)	(See SCEP Area Excavation Schedule)
74J	Plant 6 Pads	At-/Below-Grade D&D by SCEP (Area 4A)	(See SCEP Area Excavation Schedule)
74K	Plt. 9 Pad	At-/Below-Grade D&D by SCEP (Area 3A)	(See SCEP Area Excavation Schedule)
74L	Bldg. 65 West Pad	At-/Below-Grade D&D by SCEP (Area 3A)	(See SCEP Area Excavation Schedule)
74M	Bldg. 64 East Pad & Railroad Dock	At-/Below-Grade D&D by SCEP (Area 3A)	(See SCEP Area Excavation Schedule)
74N	Building 12 North Pad	At-/Below-Grade D&D by SCEP (Area 3A)	(See SCEP Area Excavation Schedule)
74P	Decontamination Pad	At-/Below-Grade D&D by SCEP (Area 3A)	(See SCEP Area Excavation Schedule)

The D&D Schedule				
SOILS PROJECT (NOT IN D&D SCOPE OF WORK) (Continued)				
74Q	Plt. 8 Old Metal Dissolver Pad	At-/Below-Grade D&D by SCEP (Area 4B)	(See SCEP Area Excavation Schedule)	
74R	Plt. 8 North Pad	At-/Below-Grade D&D by SCEP (Area 4B)	(See SCEP Area Excavation Schedule)	
74S	Bldg. 63 West Pad	At-/Below-Grade D&D by SCEP (Area 3B)	(See SCEP Area Excavation Schedule)	
74T	Plt. 1 Storage Pad	At-/Below-Grade D&D by SCEP (Area 3B)	(See SCEP Area Excavation Schedule)	
74U	Pilot Plant Pad	At-/Below-Grade D&D by SCEP (Area 4B)	(See SCEP Area Excavation Schedule)	
74V	Laboratory Pad	At-/Below-Grade D&D by SCEP (Area 4B)	(See SCEP Area Excavation Schedule)	
74W	Bldg. 39A Pad	At-/Below-Grade D&D by SCEP (Area 4B)	(See SCEP Area Excavation Schedule)	
82B	Fuel Loading/Unloading Facility - Gas Boy	At-/Below-Grade D&D by SCEP (Area 4A)	(See SCEP Area Excavation Schedule)	
89	Parking Lots	At-/Below-Grade D&D by SCEP (Areas 5 & 7)	(See SCEP Area Excavation Schedule)	
SILOS PROJECT (NOT IN D&D SCOPE OF WORK)				
34A	K-65 Storage Tank (North)	OU4 Complex	(See Silos D&D Schedule)	
34B	K-65 Storage Tank (South)	OU4 Complex	(See Silos D&D Schedule)	
34C	RTS Building	OU4 Complex	(See Silos D&D Schedule)	
35A	Metal Oxide Storage Tank (North)	OU4 Complex	(See Silos D&D Schedule)	
35B	Metal Oxide Storage Tank (South)	OU4 Complex	(See Silos D&D Schedule)	
94A	CRU4 Vitrification Pilot Plant	OU4 Complex	(See Silos D&D Schedule)	
WASTE PITS PROJECT (NOT IN D&D SCOPE OF WORK)				
18F	Pit #5 Sluice Gate	OU1 Complex	Oct. 2005	
18G	Clearwell Pump House	OU1 Complex	Oct. 2005	
18N	Waste Pit Area Storm Water Runoff Control	OU1 Complex	Oct. 2005	
18X	OU1 Remediation Swm Pond	OU1 Complex	Oct. 2005	
88	Clearwell Line	OU1 Complex	Oct. 2005	
91A	Gas Clean. Sys./Water Treat. Sys.	OU1 Complex	Oct. 2005	
91B	Material Handling Building	OU1 Complex	Oct. 2005	
91C	Railcar Loadout (RCLO)	OU1 Complex	Oct. 2005	
91D	Railcar Prep. & Liner Storage	OU1 Complex	Oct. 2005	
91E	Maintenance Building	OU1 Complex	Oct. 2005	
91F	Warehouse	OU1 Complex	Oct. 2005	
91G	Truck Wash Pump House	OU1 Complex	Oct. 2005	
91H	Geo-Lab	OU1 Complex	Oct. 2005	
POST CLOSURE STRUCTURES (NOT IN D&D SCOPE OF WORK)				
16A	Main Electrical Station	Electrical Station Complex	*(D&D Schedule: Post Closure)*	
16D	Main Electrical Switch House	Electrical Station Complex	*(D&D Schedule: Post Closure)*	
16E	Main Electrical Transformers	Electrical Station Complex	*(D&D Schedule: Post Closure)*	
16K	Dissolved Oxygen Facility Substation	OU5 Complex	*(D&D Schedule: Post Closure)*	
18J	Methanol Tank	Liquid Storage Complex	*(D&D Schedule: Post Closure)*	
18M	High Nitrate Storage Tank	OU5 Complex	*(D&D Schedule: Post Closure)*	

The D&D Schedule				
POST CLOSURE STRUCTURES (NOT IN D&D SCOPE OF WORK) (Continued)				
18P	Dissolved Oxygen Building	OU5 Complex	*(D&D Schedule: Post Closure)*	
18Q	South Plume Int. Treatment Bldg./IAWWT Valve House	OU5 Complex	*(D&D Schedule: Post Closure)*	
18R	Outfall Line Pit	OU5 Complex	*(D&D Schedule: Post Closure)*	
18S	Recovery Well System Control Bldg. (S. of Willey Rd.)	OU5 Complex	*(D&D Schedule: Post Closure)*	
18T	Public Water Supply Meter House (at Willey Rd.)	OU5 Complex	*(D&D Schedule: Post Closure)*	
18U	50K gal. Storage Tank	OU5 Complex	*(D&D Schedule: Post Closure)*	
18V	Southfield Valve House	OU5 Complex	*(D&D Schedule: Post Closure)*	
18Y	AWWT Ozone Generation Bldg.	OU5 Complex	*(D&D Schedule: Post Closure)*	
18Z	Sludge Mix Tank	OU5 Complex	*(D&D Schedule: Post Closure)*	
19B	Pilot Plant Ammonia Tank Farm/AWWT Caustic Tank Storage	OU5 Complex	*(D&D Schedule: Post Closure)*	
22F	Main Gas Meter	OU2/SCEP	*(D&D Schedule: Post Closure)*	
25K	New Sewage Treat. Plant Complex	OU5 Complex	*(D&D Schedule: Post Closure)*	
26D	Domestic & Fire Water Booster St.	OU5 Complex	*(D&D Schedule: Post Closure)*	
26E	Domestic & Fire Water 400K Gal.	OU5 Complex	*(D&D Schedule: Post Closure)*	
26F	Domestic & Fire Water Lift Station	OU5 Complex	*(D&D Schedule: Post Closure)*	
51A	Advanced Wastewater Treatment	OU5 Complex	*(D&D Schedule: Post Closure)*	
51B	Slurry Dewatering Facility	OU5 Complex	*(D&D Schedule: Post Closure)*	
51C	AWWT Laboratory Expansion Bldg.	OU5 Complex	*(D&D Schedule: Post Closure)*	
T76	SWOC	Admin. Complex	*(D&D Schedule: Post Closure)*	10 Plex
T77	SWOC	Admin. Complex	*(D&D Schedule: Post Closure)*	10 Plex
T78	SWOC	Admin. Complex	*(D&D Schedule: Post Closure)*	Double
T79	SWOC	Admin. Complex	*(D&D Schedule: Post Closure)*	Double
T80	ERMC	Admin. Complex	*(D&D Schedule: Post Closure)*	10 Plex
T81	ERMC	Admin. Complex	*(D&D Schedule: Post Closure)*	10 Plex
T114	Operations Control Center (DOE)	OU4 Complex	*(D&D Schedule: Post Closure)*	Single
T115	Radiological/Analytical Lab (DOE)	OU5 Complex	*(D&D Schedule: Post Closure)*	Single
T116	Organic Lab (DOE)	OU5 Complex	*(D&D Schedule: Post Closure)*	Single
T124	FDF Security	0U4 Complex	*(D&D Schedule: Post Closure)*	Double
T180	AWWT Office	OU5 Complex	*(D&D Schedule: Post Closure)*	Double

SECTION 3

2.0 MANPOWER PLANS

Manpower Planning Sheet (CR2)

MPS # 1AB03 MAINTENANCE

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
202 PLANT 5 D&D	10/02/2000	08/28/2001		xxx xxx xxx xx					
203 PLANT 6 D&D	10/02/2000	04/09/2002		xxx xxx xxx xxx	xxx xxx x				
204 BUILDING 64/65 D&D	07/01/2004	09/28/2004					xxx		
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
210 OU1 COMPLEX D&D	12/03/2004	07/29/2005						x xxx xxx x	
211 OU4 SILOS SUPERSTRUCTURE D&D	10/02/2006	10/31/2007							
212 OFFICE TRAILER D&D	10/03/2005	04/03/2007							xxx xxx xxx xxx
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	
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							
632 Area 5: Excavation	10/03/2005	03/31/2008							xxx xxx xxx xxx
638 Natural Resources Restoration	10/01/2003	12/31/2009					xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx
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	

			Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4
Maintenance	Project Support Manager	39.60	0.7 3.1 3 2.4	2.8 2.9 2.2 1.8	1.6 2.3 1.7 1.7	1.4 2.1 1.3 1.2	1.2 1.1 0.7 0.9	0.6 0.5 0.6 0.7
Maintenance	Maintenance Manager	213.90	5.5 12.1 12.1 11.6	9.2 9.2 9.2 9.2	9.1 9.1 9.1 9.1	9.1 9.1 9.1 9.1	7.8 7 6.5 6.6	5 5.2 5 5.1
Maintenance	Maintenance Rep.	104.10	1.3 6.2 6.3 5.4	6.8 7.6 6.9 5.9	5.3 5.8 5.3 5.3	4.4 4.9 4.5 4.4	1.7 2.4 1.6 2.2	2.6 1.5 1.5 1.5

Manpower Planning Sheet (CR2)

MPS # 1AB03 MAINTENANCE

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
202 PLANT 5 D&D	10/02/2000	08/28/2001					
203 PLANT 6 D&D	10/02/2000	04/09/2002					
204 BUILDING 64/65 D&D	07/01/2004	09/28/2004					
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					
210 OU1 COMPLEX D&D	12/03/2004	07/29/2005					
211 OU4 SILOS SUPERSTRUCTURE D&D	10/02/2006	10/31/2007	xxx xxx xxx xxx	x			
212 OFFICE TRAILER D&D	10/03/2005	04/03/2007	xxx xxx x				
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					
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			
632 Area 5: Excavation	10/03/2005	03/31/2008	xxx xxx xxx xxx	xxx xxx			
638 Natural Resources Restoration	10/01/2003	12/31/2009	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx 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					

		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
Maintenance	Project Support Manager	0.1 0.2 0.1 0.1	0.3 0 0 0	0 0.1 0 0.1	0.1 0 0 0	0 0 0 0
Maintenance	Maintenance Manager	1.4 1.3 1.2 1.2	1.1 1.1 1.1 1.1	1.1 1 1.1 1	1.1 0 0 0	0 0 0 0
Maintenance	Maintenance Rep.	0.6 0.4 0.4 0.3	0.4 0.2 0 1 0.1	0.1 0 0.1 0	0.1 0 0 0	0 0 0 0

Manpower Planning Sheet (CR2)

MPS # 1AB03 MAINTENANCE

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
Maintenance	Project Support Rep.		43.10	0.6	2.5	2.5	2.5	2.5	2.6	2.6	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2	0.6	1.1	0.5	0.9	0.5	0.6	0.3	0.4
Administration	Clerks		57.10	1.1	3.3	3.4	2.8	3.2	3.5	3.2	2.8	2.5	3	2.9	2.6	2.3	2.9	2.4	2.3	1.4	1.8	1.4	1.7	1.2	1.4	1.2	1.4
Engineering & Design	Engineer		29.00	0.5	2	2	2	1.5	1.5	1.5	1.6	1.3	1.9	1.4	1.2	1.3	1.7	1.2	1.2	0.6	1.1	0.5	0.6	0.4	0.5	0.2	0.3
Construction	Construction Coordinator		21.30	0.6	1.2	0.9	2	1.8	2.2	1.6	1.7	0.7	1.1	0.7	1.7	0.7	0.9	0.7	1.3	0.1	0	0.2	0	0.1	0.1	0.1	0.1
Craft Labor	Instrument Mechanic		255.30	6	13.3	13.3	11.9	11.9	11.4	11.3	11.3	11.4	11.2	11.2	11.2	10.3	10.1	10.2	10.2	7.8	8	7.9	7.7	7.2	7.2	6.9	6.9
Craft Labor	Electrician		342.30	5	19.4	19.4	18.7	18.6	18.6	18.5	17.9	16.9	17.5	16.8	17.9	15.2	15.5	16.8	17.8	6.8	7.4	6.9	7	6.2	6.4	5.9	6
Craft Labor	Pipefitter		207.60	2.9	13.5	13.2	10.7	11.4	11.1	11.1	10.3	10.1	10.8	10	10.2	8.9	9.5	8.9	8.9	5.6	6.1	5.6	5.8	5	5.2	5	4.8
Craft Labor	Carpenter		235.20	6.8	12.4	12.5	11.3	10.2	10.4	9.4	10.3	9.4	9.9	10.2	9.3	9.7	10	10.7	11.4	7.1	7.3	7.1	7.2	6.9	6.9	6.9	6.5
Craft Labor	Millwright		100.70	2.8	8.7	8.6	5.6	6.2	6.6	6.3	6.4	5.1	5.2	5.2	5.1	4.4	4.5	5	4.9	1.1	1	1.2	0.9	1	0.9	1	0.9
Craft Labor	Painter		16.10	1	1.4	1.6	1.5	1.4	1.6	1.5	1.4	1.4	0.5	0.4	0.4	0.3	0.4	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0	0	0.1
Craft Labor	Machinist		3.20	0	0.2	0.3	0.2	0.2	0.3	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
Craft Labor	Rigger		18.10	0	1	1.2	1	0.9	1.7	0.8	1	0.8	1.6	0.9	0.8	0.8	1.2	1.3	1.2	0.2	0.6	0.2	0.4	0	0.2	0	0.1
Craft Labor	Welder		19.20	0.2	1.2	1.4	1.2	1	1.5	1.2	0.9	1	1.4	0.9	0.9	0.8	1.3	0.8	0.8	0.4	0.6	0.2	0.4	0.2	0.3	0.1	0.3
Craft Labor	Oiler (Maintenance)		16.40	0.3	2.6	2.7	1	0.7	0.9	0.7	0.9	0.7	0.8	0.7	0.9	0.6	0.6	0.7	0.7	0.2	0.4	0.2	0.1	0	0	0	0
General Labor	General Laborer		448.50	3.3	17	17.2	17	17	17	17	17	17	17	17	17	17	17	17.2	17.2	15.1	15.1	15.1	15.1	13.1	11.1	11.1	9.1
Craft Labor	Mason		8.20	0.1	1	1	1	1	1	1	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0	0	0	0	0	0	0	0
Environmental Safety & H	Rad Tech		60.00	0.5	4.2	6.1	3.5	3	5.1	2.9	3	2.3	4.6	2.3	2.9	2	4.1	2.4	2.7	0.3	2.6	0.3	1.6	0.3	1.1	0.2	0.7
Environmental Safety & H	Industrial Hygienist Tech.		20.80	0.3	2.1	2.2	1	1.3	1.6	1	1	1	1.2	1	1	1	1.1	0.7	0.9	0.2	0.5	0.1	0.3	0.2	0.2	0.1	0.2
QA/QC	QA Engineer		18.80	0.1	1	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	0.3	0.3
Information Management	Information Records Rep.		24.20	0	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
	Sheet Totals:		2302.70	39.60	130.40	132.90	116.30	114.60	120.30	112.10	109.30	102.60	109.80	102.70	104.10	95.10	101.80	99.10	101.00	59.90	65.70	57.80	61.00	51.60	50.30	46.90	45.90

Manpower Planning Sheet (CR2)

MPS # 1AB03 MAINTENANCE

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
Maintenance	Project Support Rep.	0	0.2	0	0	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Administration	Clerks	0.1	0.4	0.1	0.1	0.4	0.1	0	0	0.1	0	0	0	0.1	0	0	0	0	0	0	0
Engineering & Design	Engineer	0.1	0.1	0.2	0	0.2	0	0.1	0	0.1	0	0.1	0	0.1	0	0	0	0	0	0	0
Construction	Construction Coordinator	0.1	0	0.2	0	0.1	0	0.1	0	0.1	0	0.1	0	0.1	0	0	0	0	0	0	0
Craft Labor	Instrument Mechanic	2.9	2.9	2.7	2	2	1.2	1.3	1.2	1.1	1	1.1	0	0.1	0	0	0	0	0	0	0
Craft Labor	Electrician	2.9	2.9	2.7	2	2	1.1	1.2	1.1	1.1	1	1.1	0	0.1	0	0	0	0	0	0	0
Craft Labor	Pipefitter	0.7	0.8	0.6	0.5	0.3	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Craft Labor	Carpenter	6.4	5.7	1.5	1	0.7	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Craft Labor	Millwright	0.6	0.3	0.4	0.2	0.3	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0	0
Craft Labor	Painter	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Craft Labor	Machinist	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Craft Labor	Rigger	0	0.1	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Craft Labor	Welder	0	0.1	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Craft Labor	Oiler (Maintenance)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
General Labor	General Laborer	9.1	9.1	6.1	6.1	6.1	6.1	6.1	6.1	6	6	6	6	6	0	0	0	0	0	0	0
Craft Labor	Mason	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	0.6	0	0	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Industrial Hygienist Tech.	0.2	0.2	0	0	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QA/QC	QA Engineer	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Information Management	Information Records Rep.	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.3	0	0	0	0	0	0	0	0	0	0	0	0
	Sheet Totals:	25.80	25.80	16.70	14.00	15.50	10.40	10.40	10.00	9.70	9.10	9.60	7.10	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00

SECTION 3

3.0 ESTIMATE

ASVC3

MAINTENANCE

09/07/2001
12:10 PM

PBS: 01
WBS: 1.1.A.B
CTRL ACCT: ASVC
CHARGE NO: ASVC3
COMMENT NO: FO1-031 & F01-041

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
**** STATED IN FY01 DOLLARS ****
(1 FTE EQUALS 1747 HOURS)

DATE: 13 MAY 2001
PROJECT MGR: R. NICHOLS
CAM: R. NICHOLS
PREPARED BY: L. HAMPSHIRE
ALL FISCAL YEARS

Resource: CLERKS **CLERKS** **EOC: LABOR**
Res Dept: **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:	4,338.1	5,544.4	4,809.9	4,328.1	2,762.9	2,278.6	305.2	212.4	42.1	42.1
Cum Hours:	4,338.1	9,882.5	14,692.4	19,020.5	21,783.4	24,062.0	24,367.2	24,579.6	24,621.7	24,663.8
Yr Total Cost:	103,637	139,420	128,111	122,075	82,548	72,734	10,561	7,747	1,706	1,759
Cum Total Cost:	103,637	243,057	371,168	493,243	575,791	648,525	659,086	666,833	668,539	670,298

Resource: CNSCOD **CONSTRUCTION COORD** **EOC: LABOR**
Res Dept: **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:	1,887.0	3,185.2	1,841.1	1,576.1	128.3	174.7	127.8	87.0	86.3	42.1
Cum Hours:	1,887.0	5,072.2	6,913.3	8,489.4	8,617.7	8,792.4	8,920.2	9,007.2	9,093.5	9,135.6
Yr Total Cost:	59,893	106,414	65,150	59,061	5,093	7,409	5,876	4,216	4,647	2,337
Cum Total Cost:	59,893	166,307	231,458	290,519	295,612	303,021	308,896	313,112	317,760	320,097

Resource: CRPNTR **CARPENTER** **EOC: LABOR**
Res Dept: **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:	17,870.3	18,657.4	17,980.8	19,374.5	13,354.4	12,581.9	6,531.1	360.0	0.0	0.0
Cum Hours:	17,870.3	36,527.7	54,508.5	73,883.0	87,237.4	99,819.3	106,350.4	106,710.4	106,710.4	106,710.4
Yr Total Cost:	572,211	629,032	642,166	732,633	536,195	538,458	303,458	17,565	0	0
Cum Total Cost:	572,211	1,201,243	1,843,409	2,576,042	3,112,238	3,650,696	3,954,153	3,971,719	3,971,719	3,971,719

Resource: ELECTN **ELECTRICIAN** **EOC: LABOR**
Res Dept: **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:	27,025.7	33,370.0	31,332.9	29,623.1	12,735.8	11,097.6	4,725.5	2,430.3	1,434.3	42.1
Cum Hours:	27,025.7	60,395.7	91,728.6	121,351.7	134,087.5	145,185.1	149,910.6	152,340.9	153,775.2	153,817.3
Yr Total Cost:	865,445	1,125,117	1,118,816	1,120,112	509,890	474,948	219,329	118,724	77,434	2,308
Cum Total Cost:	865,445	1,990,562	3,109,378	4,229,490	4,739,379	5,214,327	5,433,656	5,552,380	5,629,814	5,632,121

INCLUDES ESCALATION COSTS

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Resource: ENGINR **ENGINEER** **EOC:** LABOR
Res Dept: **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:	2,715.0	2,664.7	2,537.0	2,360.0	1,220.9	606.3	171.3	129.2	86.3	42.1
Cum Hours:	2,715.0	5,379.7	7,916.7	10,276.7	11,497.6	12,103.9	12,275.2	12,404.4	12,490.7	12,532.8
Yr Total Cost:	186,683	192,859	194,486	191,585	104,988	55,703	17,061	13,563	10,068	5,063
Cum Total Cost:	186,683	379,542	574,029	765,613	870,601	926,304	943,365	956,928	966,996	972,058

Resource: GLMNT **GEN LABOR MAINT** **EOC:** LABOR
Res Dept: **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:	24,070.6	30,930.5	30,915.9	31,052.7	27,454.7	20,034.2	13,675.5	11,084.6	10,916.6	2,625.1
Cum Hours:	24,070.6	55,001.1	85,917.1	116,969.8	144,424.5	164,458.7	178,134.2	189,218.9	200,135.5	202,760.6
Yr Total Cost:	603,295	814,680	862,314	916,403	858,868	670,027	495,423	423,181	463,475	114,747
Cum Total Cost:	603,295	1,417,976	2,280,289	3,196,692	4,055,560	4,725,587	5,221,010	5,644,191	6,107,666	6,222,413

Resource: INHTEC **INDUST HYGIENIST TEC** **EOC:** LABOR
Res Dept: **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:	2,444.9	2,202.5	1,900.5	1,628.1	482.8	322.2	201.3	96.7	10.8	0.0
Cum Hours:	2,444.9	4,647.4	6,547.9	8,176.0	8,658.8	8,981.0	9,182.2	9,279.0	9,289.8	9,289.8
Yr Total Cost:	93,588	88,996	81,496	72,814	22,757	16,651	11,955	5,922	1,035	0
Cum Total Cost:	93,588	182,584	264,080	336,894	359,651	376,302	388,257	394,179	395,214	395,214

Resource: INRREP **INFO RECORDS REP** **EOC:** LABOR
Res Dept: **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:	1,326.0	1,747.0	1,747.0	1,747.0	1,747.0	873.5	873.5	524.1	0.0	0.0
Cum Hours:	1,326.0	3,073.0	4,820.0	6,567.0	8,314.0	9,187.5	10,061.0	10,585.1	10,585.1	10,585.1
Yr Total Cost:	39,356	54,577	57,808	61,217	64,846	34,640	37,553	23,749	0	0
Cum Total Cost:	39,356	93,933	151,741	212,958	277,803	312,444	349,996	373,745	373,745	373,745

Resource: INSMEC **INSTRUMENT MECHANIC** **EOC:** LABOR
Res Dept: **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:	17,858.4	20,134.3	19,746.6	17,903.2	13,778.7	12,367.0	4,573.5	2,490.8	1,401.3	42.1
Cum Hours:	17,858.4	37,992.7	57,739.3	75,642.5	89,421.2	101,788.2	106,361.7	108,852.5	110,253.8	110,295.9
Yr Total Cost:	558,236	662,471	688,164	660,717	538,676	516,638	207,123	118,817	74,344	2,295
Cum Total Cost:	558,236	1,220,707	1,908,871	2,569,589	3,108,264	3,624,903	3,832,025	3,950,843	4,025,186	4,027,481

Resource: MASON **MASON** **EOC:** LABOR
Res Dept: **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:	1,338.6	1,393.4	435.7	393.5	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,338.6	2,732.0	3,167.7	3,561.2	3,561.2	3,561.2	3,561.2	3,561.2	3,561.2	3,561.2
Yr Total Cost:	42,112	46,141	15,282	14,616	0	0	0	0	0	0
Cum Total Cost:	42,112	88,254	103,536	118,151	118,151	118,151	118,151	118,151	118,151	118,151

Resource: MAT300 **MATERIAL OBJCLASS300** **EOC:** MATERIAL
Res Dept: 950 **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:	383,316.0	456,879.0	418,547.0	393,804.0	237,704.0	188,726.0	80,122.0	53,520.0	34,886.0	7,687.0
Cum Units:	383,316.0	840,195.0	1,258,742.0	1,652,546.0	1,890,250.0	2,078,976.0	2,159,098.0	2,212,618.0	2,247,504.0	2,255,191.0
Yr Total Cost:	383,316	469,215	441,454	426,986	264,950	216,458	94,560	64,996	43,595	9,885
Cum Total Cost:	383,316	852,531	1,293,984	1,720,971	1,985,921	2,202,379	2,296,939	2,361,936	2,405,531	2,415,416

Resource: MCHNST **MACHINIST** **EOC:** LABOR
Res Dept: **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:	309.4	393.0	349.4	349.4	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	309.4	702.4	1,051.8	1,401.2	1,401.2	1,401.2	1,401.2	1,401.2	1,401.2	1,401.2
Yr Total Cost:	9,734	13,014	12,255	12,978	0	0	0	0	0	0
Cum Total Cost:	9,734	22,748	35,003	47,980	47,980	47,980	47,980	47,980	47,980	47,980

Resource: MILWRT **MILLWRIGHT** **EOC:** LABOR
Res Dept: **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:	10,401.2	9,741.4	8,124.7	7,343.3	954.1	782.4	464.2	84.4	0.0	0.0
Cum Hours:	10,401.2	20,142.6	28,267.3	35,610.6	36,564.7	37,347.1	37,811.3	37,895.7	37,895.7	37,895.7
Yr Total Cost:	325,038	320,425	283,068	270,928	37,288	32,669	21,012	4,027	0	0
Cum Total Cost:	325,038	645,463	928,530	1,199,458	1,236,746	1,269,415	1,290,427	1,294,454	1,294,454	1,294,454

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Resource: MNTMGR **MAINTENANCE MGR** **EOC:** LABOR
Res Dept: **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:	16,888.2	17,781.0	17,058.2	17,040.2	13,183.3	9,871.1	2,434.4	2,134.4	1,873.6	468.1
Cum Hours:	16,888.2	34,669.2	51,727.4	68,767.6	81,950.9	91,822.0	94,256.4	96,390.8	98,264.4	98,732.5
Yr Total Cost:	759,273	843,084	856,548	905,366	741,273	592,502	159,038	147,141	143,012	36,730
Cum Total Cost:	759,273	1,602,357	2,458,905	3,364,271	4,105,543	4,698,045	4,857,083	5,004,225	5,147,237	5,183,967

Resource: MNTREP **MAINTENANCE REP** **EOC:** LABOR
Res Dept: **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:	8,157.4	11,989.4	9,581.6	8,020.5	3,501.1	3,085.5	737.9	348.6	86.7	42.1
Cum Hours:	8,157.4	20,146.8	29,728.4	37,748.9	41,250.0	44,335.5	45,073.4	45,422.0	45,508.7	45,550.8
Yr Total Cost:	285,172	441,099	373,714	330,717	152,979	144,043	37,341	18,592	5,124	2,559
Cum Total Cost:	285,172	726,271	1,099,985	1,430,702	1,583,682	1,727,724	1,765,065	1,783,657	1,788,782	1,791,340

Resource: ODC700 **ODC 700** **EOC:** ODC
Res Dept: 950 **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:	1,071.0	1,275.0	1,169.0	1,194.0	741.0	604.0	266.0	153.0	121.0	28.0
Cum Units:	1,071.0	2,346.0	3,515.0	4,709.0	5,450.0	6,054.0	6,320.0	6,473.0	6,594.0	6,622.0
Yr Total Cost:	1,071	1,309	1,233	1,295	826	693	314	186	151	36
Cum Total Cost:	1,071	2,380	3,613	4,908	5,734	6,427	6,741	6,926	7,078	7,114

Resource: ODCTRVL **TRAVEL RESOURCE** **EOC:** ODC
Res Dept: 950 **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:	10,698.0	12,748.0	11,674.0	11,018.0	6,635.0	5,266.0	2,237.0	1,264.0	974.0	215.0
Cum Units:	10,698.0	23,446.0	35,120.0	46,138.0	52,773.0	58,039.0	60,276.0	61,540.0	62,514.0	62,729.0
Yr Total Cost:	10,698	13,092	12,313	11,946	7,396	6,040	2,640	1,535	1,217	276
Cum Total Cost:	10,698	23,790	36,103	48,049	55,445	61,485	64,125	65,660	66,877	67,154

INCLUDES ESCALATION COSTS

Resource: OILERM **OILER MAINTENANCE** **EOC:** LABOR
Res Dept: **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:	2,824.0	1,398.5	1,355.4	1,136.5	388.7	0.0	0.0	0.0	0.0	0.0
Cum Hours:	2,824.0	4,222.5	5,577.9	6,714.4	7,103.1	7,103.1	7,103.1	7,103.1	7,103.1	7,103.1
Yr Total Cost:	75,034	39,112	40,151	35,651	12,916	0	0	0	0	0
Cum Total Cost:	75,034	114,146	154,296	189,947	202,863	202,863	202,863	202,863	202,863	202,863

Resource: PAINTR **PAINTER** **EOC:** LABOR
Res Dept: **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:	2,114.9	2,577.8	1,164.1	568.4	213.4	87.0	0.0	0.0	0.0	0.0
Cum Hours:	2,114.9	4,692.7	5,856.8	6,425.2	6,638.6	6,725.6	6,725.6	6,725.6	6,725.6	6,725.6
Yr Total Cost:	66,535	85,362	40,830	21,112	8,396	3,657	0	0	0	0
Cum Total Cost:	66,535	151,896	192,727	213,839	222,235	225,892	225,892	225,892	225,892	225,892

Resource: PIPFTR **PIPE FITTER** **EOC:** LABOR
Res Dept: **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:	18,511.0	20,876.4	19,709.7	17,360.1	11,073.1	9,583.8	1,247.0	175.2	0.0	0.0
Cum Hours:	18,511.0	39,387.4	59,097.1	76,457.2	87,530.3	97,114.1	98,361.1	98,536.3	98,536.3	98,536.3
Yr Total Cost:	608,314	719,977	722,900	674,282	455,034	421,421	59,667	8,473	0	0
Cum Total Cost:	608,314	1,328,291	2,051,191	2,725,473	3,180,507	3,601,928	3,661,595	3,670,067	3,670,067	3,670,067

Resource: PJSMGR **PROJECT SUPPORT MGR** **EOC:** LABOR
Res Dept: **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:	3,845.9	4,224.4	3,193.6	2,623.5	1,685.8	1,052.3	218.2	126.6	88.4	42.1
Cum Hours:	3,845.9	8,070.3	11,263.9	13,887.4	15,573.2	16,625.5	16,843.7	16,970.3	17,058.7	17,100.8
Yr Total Cost:	175,835	203,295	162,787	141,612	96,391	64,283	14,450	8,837	6,857	3,366
Cum Total Cost:	175,835	379,129	541,916	683,528	779,919	844,203	858,653	867,490	874,347	877,713

Resource: PJSREP **PROJECT SUPPORT REP** **EOC:** LABOR
Res Dept: **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:	3,390.6	4,455.9	4,367.5	4,147.0	1,364.0	781.0	87.0	84.4	0.0	0.0

Cum Hours:	3,390.6	7,846.5	12,214.0	16,361.0	17,725.0	18,506.0	18,593.0	18,677.4	18,677.4	18,677.4
Yr Total Cost:	138,235	191,219	198,521	199,612	69,547	42,545	5,138	5,253	0	0
Cum Total Cost:	138,235	329,454	527,975	727,587	797,134	839,679	844,817	850,070	850,070	850,070

Resource: QACENG **QA ENGINEER** **EOC:** LABOR
Res Dept: **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:	1,356.2	1,770.6	1,770.6	1,770.6	885.5	695.9	0.0	42.2	0.0	0.0
Cum Hours:	1,356.2	3,126.8	4,897.4	6,668.0	7,553.5	8,249.4	8,249.4	8,291.6	8,291.6	8,291.6
Yr Total Cost:	62,827	86,347	91,459	96,852	51,311	42,950	0	2,961	0	0
Cum Total Cost:	62,827	149,175	240,634	337,485	388,796	431,746	431,746	434,707	434,707	434,707

Resource: RADTEC **RAD TECH** **EOC:** LABOR
Res Dept: **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:	6,757.3	6,612.8	5,746.6	5,319.8	2,264.7	1,079.3	323.4	272.2	0.0	0.0
Cum Hours:	6,757.3	13,370.1	19,116.7	24,436.5	26,701.2	27,780.5	28,103.9	28,376.1	28,376.1	28,376.1
Yr Total Cost:	240,079	247,975	228,490	223,904	99,678	50,832	16,656	14,683	0	0
Cum Total Cost:	240,079	488,054	716,544	940,448	1,040,126	1,090,957	1,107,613	1,122,296	1,122,296	1,122,296

Resource: RIGGER **RIGGER** **EOC:** LABOR
Res Dept: **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:	1,768.1	1,920.5	1,796.2	1,972.2	618.8	134.6	43.5	42.2	0.0	0.0
Cum Hours:	1,768.1	3,688.6	5,484.8	7,457.0	8,075.8	8,210.4	8,253.9	8,296.1	8,296.1	8,296.1
Yr Total Cost:	55,624	63,596	63,001	73,252	24,346	5,658	1,982	2,027	0	0
Cum Total Cost:	55,624	119,220	182,221	255,474	279,820	285,478	287,460	289,487	289,487	289,487

Resource: SERVSUB **SUBS** **EOC:** SUBCONTRACTORS
Res Dept: 950 **Overtime:** EVIN **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:	51,617.0	37,400.0	37,400.0	35,953.0	24,400.0	12,900.0	900.0	0.0	0.0	0.0
Cum Units:	51,617.0	89,017.0	126,417.0	162,370.0	186,770.0	199,670.0	200,570.0	200,570.0	200,570.0	200,570.0
Yr Total Cost:	51,617	38,410	39,447	38,982	27,197	14,796	1,062	0	0	0
Cum Total Cost:	51,617	90,027	129,474	168,456	195,653	210,448	211,511	211,511	211,511	211,511

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Resource: WELDER **WELDER** **EOC:** LABOR
Res Dept: **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:	1,768.6	2,115.4	1,928.9	1,710.1	730.2	407.1	43.5	42.2	0.0	0.0
Cum Hours:	1,768.6	3,884.0	5,812.9	7,523.0	8,253.2	8,660.3	8,703.8	8,746.0	8,746.0	8,746.0
Yr Total Cost:	57,323	72,152	69,637	65,523	29,496	17,339	1,982	2,027	0	0
Cum Total Cost:	57,323	129,476	199,113	264,636	294,132	311,472	313,454	315,481	315,481	315,481

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:	178,967.5	205,686.5	189,393.9	179,347.9	110,528.2	87,896.0	36,783.8	20,767.5	16,026.5	3,387.9
Cum Hours:	178,967.5	384,654.0	574,047.9	753,395.8	863,924.0	951,820.0	988,603.8	1,009,371.3	1,025,397.8	1,028,785.7
Yr Total Cost:	6,430,181	7,708,391	7,491,603	7,482,230	4,802,883	4,043,093	1,724,181	1,014,222	832,666	181,360
Cum Total Cost:	6,430,181	14,138,572	21,630,174	29,112,404	33,915,287	37,958,380	39,682,561	40,696,782	41,529,448	41,710,808

CAM _____ CONTROL TEAM _____

INCLUDES ESCALATION COSTS

WBS DICTIONARY
CONTROL ACCOUNT/CHARGE NUMBER

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.A.B	INFRASTRUCTURE SERVICES	
5 PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7 WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8 BUDGET AND REPORTING NUMBER	9 BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10 ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		12/00 - 12/09
12 TASK IDENTIFICATION (WORK PACKAGE)	13 TASK DESCRIPTION (ONE LINE)	
ASVC4	PORTERS/LAUNDRY	

14 ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Subcontractors
Materials
ODC's

b. TECHNICAL CONTENT:

MANAGEMENT SUPPORT

This department provides the resources to manage the laundry facility and porter services. Management Support interfaces with the client, company management, and the laundry subcontractor to ensure project functions operate within required practices, procedures and contract provisions. Management Support also provides the resources to complete the administrative functions of the group.

PORTERS

The porter group provides housekeeping and cleaning services for facilities located on and off site. The porter group performs cleaning activities in offices, locker rooms, conference rooms, shower facilities, control points, hallways, and stairwells. Cleaning services are scheduled on a daily, weekly, or annual basis with activities such as trash removal being conducted on a daily basis while floor waxing is performed annually. The porter group also manages the "Green is Clean" program which involves the collection of non-contaminated trash from the controlled areas for disposal.

Project Manager	Control Account Manager	Control Team Manager
		Rodney Whitaker

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
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ASVC4	PORTERS/LAUNDRY	

14. ELEMENT TASK DESCRIPTION

LAUNDRY

The laundry facility is responsible for ensuring that employees have access to appropriate PPE and clothing. Laundry is packaged and shipped to a subcontractor for cleaning and then shipped back to the FEMP. The laundry is responsible for packaging and unloading shipments of clothing and maintaining clean clothing for distribution. Company-issued clothing is distributed in the Services Building and at Satellite Change Areas (SCAs). Laundry workers stock the SCAs with appropriate levels of the following PPE and modesty wear: T-shirts, socks, boxer shorts, panties, bras, respirators, washable yellow PPE, shoe covers, skull caps, and hoods. Laundry workers also remove soiled clothing and PPE from SCAs and gather used clothing from the locker rooms.

The Laundry group is also responsible for the cleaning, storing, and distribution of respirators. All records associated with this activity are managed by this group.

c. SCOPE OF WORK:

MANAGEMENT SUPPORT

This charge number provides for the management and administrative functions of the Porter/Laundry Group. In addition to general clerical support, administrative functions include credit card purchasing, tracking attendance and overtime, and compiling information to track clothing and PPE distribution.

PORTERS

Following is a list of activities performed by Porters and contained within this scope:

Restroom Cleaning

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(Work Package)

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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
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ASVC4	PORTERS/LAUNDRY	

14. ELEMENT TASK DESCRIPTION

DAILY:

- Remove all trash and reline the containers.
- Ensure all toilets are flushed and unclogged.
- Wipe down sinks, counter tops, and paper towel dispensers and hand dryers, including chrome fixtures and piping under all fixtures.
- Clean mirrors.
- Clean toilets.
- Inspect and fill dispensers (paper towels, soap, toilet paper, toilet seat covers, feminine products, etc).
- Inspect stall walls and spot clean.
- Damp mop floors.

WEEKLY:

- Wipe down stall walls.
- Wipe down showers and shower fixtures.

Office Cleaning

DAILY:

- Remove all trash and reline containers.
- Inspect and spot clean walls.

WEEKLY:

- Dust ceilings, lights, and ledges that are accessible.
- Clean baseboards.
- Dust and mop floor.
- Inspect and spot clean all windows.
- Vacuum floors.

Annual Floor Cleaning

WORK SCOPE DEFINITION
(Work Package)

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EW05H3010	FACILITY AND PROJECT SUPPORT	
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NEW SCOPE PER CP #FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
ASVC4	PORTERS/LAUNDRY	

14. ELEMENT TASK DESCRIPTION

- Clean and shampoo carpets.
- Scrub, strip, and wax floors.

Showers Cleaning

DAILY:

- Check shower area for any debris or clothing.

WEEKLY:

- Spray disinfectant on all surfaces in the shower area.
- Wipe down all surfaces.

Locker Room Cleaning

DAILY:

- Remove all trash and reline containers.
- Pick up all debris and discard in appropriate containers.
- Inspect and spot clean walls.
- Clean restrooms, per instruction.
- Dust and mop floors.

WEEKLY:

- Wipe down lockers and doors.
- Dust ceilings, lights, ledges, locker tops, and vents.

Conference Rooms

DAILY:

- Remove all trash and reline containers.

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.A.B	INFRASTRUCTURE SERVICES	
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NEW SCOPE PER CP #FY01-0115-0001-00		12/00 - 12/09
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ASVC4	PORTERS/LAUNDRY	

14. ELEMENT TASK DESCRIPTION

WEEKLY:

- Dust the ledges, baseboards, and furniture in the conference room.
- Inspect and spot clean walls and windows.
- Clean tabletops and equipment.
- Dust mop floors or vacuum.
- Mop floors.

Hallways

DAILY:

- Inspect and spot clean glass on doors and partitions.
- Check for and remove gum on floors; remove as necessary.
- Sweep floors.

WEEKLY:

- Damp dust doorframes and kick plates.
- Mop floors.
- Dust ceilings, ledges, lights, and vents that are accessible.
- Vacuum and sweep walk mats.

Stairwells

WEEKLY:

- Dust ceilings, ledges, lights, and vents that are accessible.
- Coordinate high level cleaners as needed for the higher areas that need dusting and cleaning.
- Damp dust doorframes and kick plates.
- Spot clean glass.
- Sweep steps.
- Spot check for gum and remove as needed.

WORK SCOPE DEFINITION
(Work Package)

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ASVC4	PORTERS/LAUNDRY	

14. ELEMENT TASK DESCRIPTION

BI-WEEKLY:

- Wipe down railings and walls as needed.
- Vacuum mats and mop steps.

Control Points

DAILY:

- Remove any debris from the area.
- Removes trash and reline container.
- Sweep and mop area in accordance with radiological requirements.
- Vacuum all mats.

WEEKLY:

- Dust ceilings, ledges, lights, and vents that are accessible.
- Damp dust doorframes and kick plates.

Cafeteria

DAILY:

- Remove any loose debris.
- Wipe down tables.
- Removes trash and reline containers.
- Remove pop cans.
- Spot-check for gum; remove as necessary.
- Sweep area.
- Mop area.

WEEKLY:

- Wipe down chairs.

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(Work Package)

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ASVC4	PORTERS/LAUNDRY	

14. ELEMENT TASK DESCRIPTION

- Clean trash and pop can receptacles.
- Dust baseboards and equipment.
- Wipe down all equipment and vending machines.

Green is Clean Program

- Inspect contents of bags, seal bags with tape, mark origin and date on bag and transport to designated storage bins.

Storage Areas

DAILY:

- Ensure all chemicals are stored properly.

- Remove excess items.
- Remove dirty mop heads and send to laundry.
- Do inventory of cleaning chemicals and supplies.
- Report any mechanical problems with equipment.

WEEKLY:

- Sweep and mop floors.
- Clean sinks.

Safety/IH Support

The following are the tasks performed by health and safety personnel (radiological technicians, industrial hygienists, and safety technicians) as a part of this scope:

- Conduct worker briefings and provide support on issues such as heat stress.
- Provide support for chemical management associated with cleaning supplies.
- Conduct briefings associated with chemical products.

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(Work Package)

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ASVC4	PORTERS/LAUNDRY	

14. ELEMENT TASK DESCRIPTION

- Evaluate and address safety issues encountered by Porters during routine cleaning activities.

LAUNDRY

This charge number includes the following laundry functions and activities:

Clothing Distribution at Services Building

- Laundry workers hand out clothing to all team members who wear company-issued clothing. All issued clothing is tracked by the Laundry workers.
- Manage Laundry subcontract invoice and administration to assure project cost are allocated appropriately.

Locker Rooms

- Men and women's locker rooms are picked up twice a day, in the morning and late afternoon. Dirty clothing is gathered and placed in proper containers and taken to the Laundry Facility for shipment.
- Towels are placed in the locker rooms for showering at the end of the day.

Preparation for off-site Laundry Shipment

- Soiled PPE is placed in bags.
- The Rad tech surveys the inside and outside of the containers.
- The bags are surveyed and weighed and placed in the containers.
- Weights are logged.

Laundry Shipment

- MVO uses fork lift to place containers in sealand.
- A laborer arranges the containers in the sealand.

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ASVC4	PORTERS/LAUNDRY	

14. ELEMENT TASK DESCRIPTION

- A rad tech seals the doors of the sealand and places a sticker on the outside of the sealand with the invoice number.
- The Sealand is moved to RIMIA and weighed.
- QA inspects the outgoing laundry shipments and the trailer.

Receiving a shipment

- A fork truck driver removes the containers or boxes from the sealand.
- QA inspects incoming shipment
- The laundry workers then place all of the clean clothing in the proper containers for distribution.

Storeroom Activities

- The Storeroom Attendant issues boots, pulls new clothing from the shelves to put into system for use, stocks new clothing, ensures maximum/minimum stock levels are maintained and fills PPE and respirator orders for the SCA.

Satellite Change Areas

- Bag and remove soiled clothing and PPE. Stock SCAs with clothing, PPE, and respirators. Following is a list of the SCAs:

- T-94 SCA for D&D Project

- T-93 SCA for Hazwats

- T-96 SCA for Subcontractors (Petro, IT)

- T-139 SCA for Subcontractors (Petro, IT)

- T-512 SCA for Heavy Equipment

- T-95 SCA for D&D Project

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ASVC4	PORTERS/LAUNDRY	

14. ELEMENT TASK DESCRIPTION

- Lab/DOP Shop SCA - Five SCAs located in Lab
- Building 68 SCA for Trash Compactor
- Building 80 SCA for various FEMP projects
- AWWT SCA
- T-517 SCA for D&D Project
- Area 3A SCA
- T-191 SCA - for Silos Project
- Building 64 SCA - for various FEMP projects

Weekly Laundry Activities

- Receive porter items for laundering, such as mopheads, bonnets and shower liners.
- Laundry workers pick up dirty sheets and towels from Medical for laundering. Laundry workers return the clean sheets and towels to Medical.
- Laundry workers pick up training PPE for laundering.

Respirator Facility

- Receive clean respirators from the laundry subcontractor and organize the respirators according to style and size.
- From the shipment, radiological technicians remove all respirators and nosecups from bags and place in groups to prepare for smears.
- Radiological technicians count smears on Tennelec to ensure respirators are not contaminated.
- Radiological technicians process respirators doing visual and physical inspection followed by direct frisking of each respirator to determine no risk

WORK SCOPE DEFINITION
(Work Package)

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14. ELEMENT TASK DESCRIPTION

of contamination.
- Radiological technicians bag and seal each respirator and place them into a box. Scan box with scanner and place into supply system.
- Instrument source check for monitoring of incoming PPE. Radiological technicians perform daily rad survey in Laundry loading and unloading area.
- Radiological technicians complete material unrestricted release forms for laundry clothing items.
- All paperwork associated with the surveys, rad, smear surveys, and direct frisk survey of respirators are used for tracking purposes. Records are kept on the percentages of discrepancies of respirators per shipment survey of outgoing respirators and incoming respirators.
- Quality control checks on Tennelec daily.

Safety/IH Support

The following are the tasks performed by health and safety personnel (radiological technicians, industrial hygienists, and safety technicians) in support of the laundry function:

- Conduct worker briefings and provide support on issues such as heat stress.
- Troubleshoot issues associated with respirators and the respirator facility.
- Provide support for laundered materials.
- Evaluate and address safety concerns associated with the laundry and respirator facilities.

This charge number also includes the scope for purchasing modesty clothing, boots, coats, respirators.

d. WORK SPECIFICALLY EXCLUDED:

- Repair of equipment
- Cleaning personal furniture (microwaves, refrigerators, lamps, and chairs)
- Cleaning above six feet

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ASVC4	PORTERS/LAUNDRY	

14. ELEMENT TASK DESCRIPTION

- Bulk trash collection
- Cleaning of administrative area breakrooms
- Cleaning of outside windows
- Port-o-let cleaning
- Furnishing equipment for SCAs
- Operation of Laundry equipment
- Procurement and laundering of Guard uniforms
- PPE for all subcontractors except Wise Construction
- IT laundry facility
- Insulated winter gear, coveralls, snow boots, gloves or hats, except as specified by the FAT & LC contract
- Attaching the cartridges to respirators
- Procurement of any respirator cartridges
- The use of this charge number to support a Project Labor Pool beyond the identified scope and associated manpower to complete the scope.
- Computer purchases and upgrades.
- Fluor Fernald General and Administrative Budget.

SECTION 4

1.0 NARRATIVE

1. PROJECT TITLE: FACILITY AND PROJECT SUPPORT	2. DATE: 09/10/01	3. PBS#: 01
4. WBS ELEMENT CODE: 1.1.A.B.	5. WBS ELEMENT TITLE: INFRASTRUCTURE SERVICES	
6. CAM NAME/ PHONE: ROBERT HAMMACK	7. CAM SIGNATURE:	
8. ORIGINAL/ CHANGE SCOPE/ PER CP#:	9. CONTROL ACCOUNT: ASVC	

PART 2: ASVC – INFRASTRUCTURE SERVICES
Section 4: ASVC4 – Porters/Laundry

1.0 NARRATIVE

1.1 Porters/Laundry Overview

Management Support

This department provides the resources to manage the laundry facility and porter services. Management Support interfaces with the client, company management, and the laundry subcontractor to ensure project functions operate within required practices, procedures and contract provisions. Management Support also provides the resources to complete the administrative functions of the group.

Porters

The porter group provides housekeeping and cleaning services for facilities located on and off site. The porter group performs cleaning activities in offices, locker rooms, conference rooms, shower facilities, control points, hallways, and stairwells. Cleaning services are scheduled on a daily, weekly, or annual basis with activities such as trash removal being conducted on a daily basis while floor waxing is performed annually. The porter group also manages the "Green is Clean" program which involves the collection of non-contaminated trash from the controlled areas for disposal.

Laundry

The laundry facility is responsible for ensuring that employees have access to appropriate PPE and clothing. Laundry is packaged and shipped to a subcontractor for cleaning and then shipped back to the FEMP. The laundry is responsible for packaging and unloading shipments of clothing and maintaining clean clothing for distribution. Company-issued clothing is distributed in the Services Building and at Satellite Change Areas (SCAs). Laundry workers stock the SCAs with appropriate levels of the following PPE and modesty wear: T-shirts, socks, boxer shorts, panties, bras, respirators, washable yellow PPE, shoe covers, skull caps, and hoods. Laundry workers also remove soiled clothing and PPE from SCAs and gather used clothing from the locker rooms.

The Laundry group also is responsible for the cleaning, storing, and distribution of respirators. All records associated with this activity are managed by this group.

1.2 Assumptions/Exclusions

1.2.1 Assumptions

- Existing Porter Work Instructions will be used to perform work
- The current Laundry Subcontract will continue through the life of the project
- Facilities for laundry distribution will be provided through the life of the project
- All porter general cleaning will be inside of facilities
- Porters will provide general housekeeping for the life of the Project
- Energy sources will be provided at all interior locations requiring operation of electric equipment
- One pair of safety shoes per year will be issued to team members and contractors
- The Green is Clean Program for disposing of non-contaminated trash from controlled areas will be paid for by this charge number. As the number of non-controlled areas decrease, the level of support for this program will decrease
- A company vehicle will be provided for off-site office cleaning
- This charge number will supply necessary PPE for visitors
- The terms of the Laundry Subcontract will not change
- A 10% survey on PPE received from Laundry Subcontractor will be utilized to ensure appropriate cleaning. The survey schedule is established by the site Radiological organization
- The Laundry will covers all special needs for all shifts and ensures that team members are provided with clothing needed for the off-shifts
- Discarded rags will be supplied to the Garage
- PPE refers to respirators, nose cups, anti-c coveralls, rubber shoe covers, cloth booties and hoods, cloth skullcaps and lab coats

- Procurement of any modesty wear, PPE or respirators
- This charge number will only pay for training associated with General Site Worker Qualification ~~and specific training related to core functions~~ access training for specific site areas as necessary, and specific training related to core functions.

R1-D-340

- The basis of this estimate assumes the use of Remediation Schedule, Execution 6 Scenario. The Porter/Laundry group will provide housecleaning and laundry services in accordance with the needs of these projects

- Manpower calculations are based on the following four possible sources: Historical Data (HD), Industry Standard (IS), Composite of HD & IS (Comp), and Professional Judgement (PJ). See Calculation Table ~~in~~ following Section ~~V~~ 1.4.4 for calculations by work scope activity/sub activity

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Other Direct Costs (ODCs) are based on FY00 actual cost of work performed and budgeted manpower (FTEs). ~~, as follows: ODC$s/FTEs. Minimum of $100/FTE will be used if FY00 calculations are < $100/FTE.~~
See Section 1.4.4 for quotient, by work scope function

R1-F01-002

- ~~Premium~~ Overtime is based on FY00 actual cost of work performed overtime hours (OT) and regular (Reg) hours, as follows: OT/Reg.
See Section 1.4.4 for quotient, by work scope function

R1-D-048

- Material rates are broken down into two parts: 1-General Materials and 2-Additional Materials. General Materials are based on data supplied by Estimating Services. Additional Materials are based on FY00 ACWP data. See section 1.4 for materials rates.

- Subcontractor dollars are based on existing subcontracts at time of this baseline and anticipated new subcontracts not currently in place

R1-F01-025

- This account will only pay to launder modesty clothing (non-anti-"C", coveralls, towels, under clothes)
- Modesty clothing cost = $4.31/unit/week to wash or $224/unit/year
- Use manpower curve for wage worker from FY01 through 1st quarter of FY10 from MPS
- PBS01 purchases all Carharts/bibs for site
- Use wage manpower curve from MPS (as of 5/01)
- 25% of wage FTEs to receive Carharts each year
- Unit cost = $150 ($95/coveralls, $55/Bib)
- PBS01 to purchase:
  - Modesty clothing (except Waste Pits)
  - Boots
  - Coats
  - Respirators (except Waste Pits)

- Object class 330 "Safety Clothing/Equipment" cost $1,055,000 in FY01. "Usage for Laundry Stores" Report shows $400,000 bought through laundry stores in FY00 (report date 5/1/01). Subtract $168,000 for anitr-c items from $400,000 to rectify PBS01 cost. $168k represents 42% spent across the site for non-anti-c items (modesty clothing, boots, coats, and respirators). Subtract the cost of FY00 "Waste Pits" $35,000 to leave a balance of $408,000 to be budgets by PBS01 (rounded to $400k)
- Use manpower curve for wage workers from FY01 through 1st quarter of FY10 from MPS

R1-F01-001

- Dollar amounts are unescalated
- All calculations for manpower, subcontracts, materials, and ODCs are based on a 12-month year for 2002, 2003, 2004, 2005, 2006, 2007, 2008, and 2009
- All overtime is planned overtime
- Assume that all work activities are based on a 40-hour workweek
- The basis of this estimate assumes the use of Remediation Schedule, and Execution 6 Scenario
- Sales Tax @ 6% for all taxable items
- Estimate is expressed in FY01 dollars
- Estimate represents budget for the length of this charge number

1.2.2 Exclusions

- Repair costs of equipment
- Cleaning personal furniture (microwaves, refrigerators, lamps, and chairs)
- Cleaning above six feet
- Bulk trash collection
- Cleaning of administrative area breakrooms
- Cleaning of outside windows
- Port-o-let cleaning
- Furnishing equipment for SCAs
- Operation of Laundry equipment
- Procurement and laundering of the Guard's uniforms
- PPE for all subcontractors except Wise Construction
- IT laundry facility
- Insulated winter gear, coveralls, snow boots, gloves or hats, except as specified by the FAT & LC contract

- Attaching the cartridges to respirators
- Procurement of any respirator cartridges
- The use of this charge number to support a Project Labor Pool beyond the identified scope and associated manpower to complete the scope
- Computer purchases and upgrades
- Does not include Fluor Fernald General Administrative Cost

R1-F01-001

1.2.3 Government-Furnished Equipment/Services

None

1.3 DRIVERS

R1-D01-342

Cleaning and laundry services will be provided in support of each of the following ~~projects~~:

- OU1 Complex D&D
- Plant 6/East Warehouse D&D
- Plant 1 Phase II D&D
- Admin Complex D&D
- Electrical Station D&D
- Silos 1-4, Superstructure, and RTS D&D
- OU3 other D&D
- Plant 5 D&D
- Maintenance Tank Farm D&D
- Multi Complex D&D
- Lab/Pilot Plant D&D
- Stand Alone D&D Components
- Mixed Waste Projects
- Low Level Waste Projects
- OSDF Project
- Aquifer/AWWT Project
- Environmental Monitoring
- ARASA Operations
- WPRAP Project Management
- Natural Resources Restoration
- Soil Remediation
- Stock Piles
- Silos Projects
- Waste Management
- Administrative Area Facilities

R1-D01-342

1.4 SCOPE OF WORK

1.4.1 Management Support

1.4.1)1 Plan/Scope

The Manager of the Porter/Laundry group is responsible for all activities associated with providing the services of the Laundry Facility and the Porter Service functions. This function includes interfacing with the client, laundry subcontractor, FAT&LC, and Industrial Relations, as well as providing direct oversight of employees.

This charge number also provides for the administrative functions of the Porter/Laundry Group. In addition to general clerical support, administrative functions include credit card purchasing, tracking attendance and overtime, and compiling information to track clothing and PPE distribution.

1.4.1)2 Quantification

(Refer to Quantification Table)

R1-D-048

~~Old 7GLA1 - related .0016~~
~~Old 7GLA2 - related .0275~~
~~Average = 0.146 x reg hours~~

1.4.1)3 ODCs

Based on actuals of charge #'s 7GLA1&2

ODC 600 - None
ODC 700 - None
ODC Travel - $158/FTE

1.4.1)4 Subcontracts/Materials

Subcontracts: NONE

Materials:

R1-F01-026

General Materials: $594/FTE Additional Materials:
Additional Materials: ~~/FTE~~ ~~$16,464~~ 3,600/FTE (Porter Supplies, Safety Clothing & Equipment)
Materials/Year NONE

1.4.2 PORTERS

1.4.2)1 Plan/Scope

Supervision of the porters is a general supervisory duty, along with directing day-to-day activities, and providing direct employee oversight. The Porter supervision also interfaces with Industrial Relations, FAT&LC, and their customers.

R1-D01-324

Following is a list of activities performed by Porters:

Restroom Cleaning

DAILY:

- Remove all trash and reline the containers.
- Insure all toilets are flushed and unclogged. If clogged, use a plunger to unstop the clog. If the clog does not dislodge, contact maintenance for a pipe fitter.
- Wipe down sinks, counter tops, and paper towel dispensers and hand dryers with a damp clean cloth. This includes chrome fixtures and piping under all fixtures. Use cleaners if necessary.
- Clean mirrors.
- Clean toilets.
- Inspect and fill dispensers (paper towels, soap, toilet paper, toilet seat covers, feminine products, etc).
- Inspect stall walls and spot clean.
- Damp mop floors. Mop around all stalls, toilets, and sinks.

WEEKLY:

- Wipe down stall walls.
- Wipe down showers and shower fixtures.

Office Cleaning

DAILY:

- Remove all trash and reline containers.
- Inspect and spot clean walls.

WEEKLY:

- Dust ceilings, lights, and ledges that are accessible.
- Clean baseboards.
- Dust and mop floor.
- Inspect and spot clean all windows.
- Vacuum floors.

Annual Floor Cleaning

- Clean and shampoo carpets.
- Scrub, strip, and wax floors.

Showers/Locker Room Cleaning

DAILY (Showers)

- Check shower area for any debris or clothing.

WEEKLY (Showers)

- Spray disinfectant on all surfaces in the shower area, wait 5 minutes,
- Wipe down all surfaces.

DAILY (Locker Rooms):

- Remove all trash and reline containers.
- Pick up all debris and discard in appropriate containers.
- Inspect and spot clean walls.
- Clean restrooms, per instruction.
- Dust mop floors.
- Mop floors, per instruction.

WEEKLY (Locker Rooms):

- Wipe down lockers and doors.
- Dust ceilings, lights, ledges, locker tops, and vents.

Conference Rooms

DAILY:

- Remove all trash and reline containers.

WEEKLY:

- Dust the ledges, baseboards, and furniture in the conference room.
- Inspect and spot clean walls and windows.
- Clean tabletops and equipment.
- Dust mop floors or vacuum.
- Mop floors.

Hallways/Stairwell

DAILY (Hallways):

- Inspect and spot clean glass on doors and partitions.
- Check for gum on floors; remove as necessary.
- Sweep floors.

WEEKLY (Hallways):

- Damp dust doorframes and kick plates.
- Mop floors.
- Dust ceilings, ledges, lights, and vents that are accessible.
- Vacuum and sweep all walk mats.

WEEKLY (Stairwells):

- Dust ceilings, ledges, lights, and vents that are accessible.
- Coordinate high level cleaners as needed for the higher areas that need dusting and cleaning.
- Damp dust doorframes and kick plates.
- Spot clean glass.
- Sweep steps. (Check all corners of the steps and landings to be sure they are free of debris and wax buildup)
- Spot check for gum and remove as needed.

BI-WEEKLY (Stairwells):

- Wipe down railings and walls as needed.
- Vacuum mats and mop steps.

Control Points

DAILY:

- Remove any debris from the area.
- Removes trash and reline container. Trash must be placed in Rad bags, taped and staged for removal.
- Contact Rad personnel working in the area when preparing to sweep and mop, as each area is done differently depending on the work activity in the area.
- Vacuum all mats.

WEEKLY:

- Dust ceilings, ledges, lights, and vents that are accessible.
- Damp dust doorframes and kick plates.

Cafeteria

DAILY:

- Remove any loose debris.
- Wipe down tables.
- Removes trash and reline containers.
- Remove pop cans.
- Spot-check for gum; remove as necessary.
- Sweep area.
- Mop area.

WEEKLY:

- Wipe down chairs.
- Clean trash and pop can receptacles.
- Dust baseboards and equipment.
- Wipe down all equipment and vending machines.

Green is Clean Program

- Inspect contents of bags, seal bags with tape, mark origin and date on bag and transport to designated storage bins.

Storage Areas

DAILY:

- Ensure all chemicals are stored properly.
- Remove excess items.
- Dirty mop heads need to be removed and taken to laundry for washing. Store damp mop heads properly.
- Do inventory of cleaning chemicals and supplies.
- Report any mechanical problems with equipment, so the proper repairs can be made.

WEEKLY:

- Sweep and mop floors.
- Clean sinks.

Safety/IH Support

R1-D-343

The following are the tasks performed by health and safety personnel (radiological technicians, industrial hygienists, and safety technicians) in support of the porter function:

- Conduct worker briefings and provide support on issues such as heat stress.
- Provide support for chemical management associated with cleaning supplies.
- Conduct briefings associated with chemical products.
- Evaluate and address safety issues encountered by Porters during routine cleaning activities.

1.4.2)2 Quantification

(Refer to Quantification Table)

R1-D-048

~~Old 7GLA2 - related .0275 x reg hours~~ Overtime at 1.5x Porters 1.0% and overtime 2x .25%

1.4.2)3 ODCs

Based on actuals of charge #'s 7GLA1&2

ODC 600 - None
ODC 700 - None
ODC Travel - $158/FTE

1.4.2)4 Subcontracts/Materials

Subcontracts: NONE

Materials:

General Materials: $594/FTE

R1-F01-026

Additional Materials:
~~Materials/FTE $16,464~~ 3,600/FTE (Porter Supplies, Safety Clothing & Equipment)
Materials/Year NONE

1.4.3 LAUNDRY

1.4.3)1 Plan/Scope

- Laundry supervision is responsible for general supervisory duties, directing day to day activities of the laundry workers, and providing direct employee oversight. The Laundry Supervisor also interfaces with Industrial Relations, FAT&LC, and their customers.

- Clothing Distribution at Services Building

  Laundry workers hand out clothing to all team members who wear company-issued clothing. All issued clothing is tracked by the Laundry workers.

R1-F01-027

  Manage Laundry subcontract invoice and administration to assure project cost are allocated appropriately.

- Locker Rooms

  Men and women's locker rooms are picked up twice a day, in the morning and late afternoon. Dirty clothing is gathered and placed in proper containers and taken to the Laundry Facility for shipment.

  Towels are placed in the locker rooms for showering at the end of the day.

- Preparation for off-site Laundry Shipment

  - Soiled PPE is placed in bags.
  - The Rad tech surveys the inside and outside of the containers.
  - The bags are surveyed and weighed and placed in the containers.
  - When the containers are full, the doors are shut and locked and a piece of -tape is placed on the outside.
  - Weights are logged.

- Shipment

  - MVO uses fork lift to place containers in sealand.
  - A laborer arranges the containers in the sealand.
  - A rad tech seals the doors of the sealand and places a sticker on the outside of the sealand with the invoice number.
  - The Sealand is moved to RIMIA and weighed.
  - QA inspections the outgoing laundry shipments and the trailer.

- Receiving a shipment

  - A fork truck driver removes the containers or boxes from the sealand.
  - QA inspects incoming shipment
  - The laundry workers then place all of the clean clothing in the proper containers for distribution.

- Storeroom Activities. The Storeroom Attendant issues boots, pulls new clothing from the shelves to put into system for use, stocks new clothing, ensures maximum/minimum stock levels are maintained and fills PPE and respirator orders for the SCA.

- Satellite Change Areas: Bag and remove soiled clothing and PPE. Stock SCAs with clothing, PPE, and respirators. Following is a list of the SCAs serviced by the Porters:

- T-94 SCA for D&D Project

- T-93 SCA for Hazwats

- T-96 SCA for Subcontractors (Petro, IT)

- T-139 SCA for Subcontractors (Petro, IT)

- T-512 SCA for Heavy Equipment

- T-95 SCA for D&D Project

- Lab/DOP Shop SCA – Five SCAs located in Lab
- Building 68 SCA for Trash Compactor
- Building 80 SCA for various FEMP projects
- AWWT SCA
- T-517 SCA for D&D Project
- Area 3A SCA
- T-191 SCA – for Silos Project
- Building 64 SCA – for various FEMP projects
- Weekly Laundry Activities
  - Receive porter items for laundering, such as mopheads, bonnets and shower liners.
  - Laundry workers pick up dirty sheets and towels from Medical for laundering. Laundry workers return the clean sheets and towels to Medical.
  - Laundry workers pick up training PPE for laundering.

Respirator Facility

- Receive clean respirators from Unitech (laundry subcontractor) and organize the respirators according to style and size (877-med. Ultra twin, 886 lg. Ultra twin, and 637, med ultra twin.

R1-D-343

- From the shipment, radiological technicians remove all respirators and nosecups from bags and place in groups to prepare for smears. Nine respirators per smear, 25 nosecups per smear.

R1-D-343

- Radiological technicians cCount smears on Tennelec to insure respirators are not contaminated.

- Radiological technicians pProcess respirators doing visual and physical inspection 1 respirator at a time, followed by dDirect frisking of each respirator to determine no risk of contamination.

R1-D-343

- Radiological technicians bag and sealBagged and sealed each respirator and placed them into a box. Scan box with scanner and place into supply system.

- Instrument source check for monitoring of incoming PPE. Radiological technicians pPerform daily rad survey in Laundry loading and unloading area.

R1-D-343

- Radiological technicians cComplete material unrestricted release forms (murf) for laundry clothing items.

- All paperwork associated with the surveys, rad, smear surveys, and direct frisk survey of respirators are used for tracking purposes. Records are kept on the percentages of discrepancies of respirators per shipment survey of outgoing respirators and incoming respirators.

- Quality control checks on Tennelec daily.

Safety/IH Support

R1-D-343

The following are the tasks performed by health and safety personnel (radiological technicians, industrial hygienists, and safety technicians) in support of the laundry function:

- Conduct worker briefings and provide support on issues such as heat stress.
- Troubleshoot issues associated with respirators and the respirator facility.
- Provide support for laundered materials.
- Evaluate and address safety concerns associated with the laundry and respirator facilities.

1.4.3)2 Quantification

Refer to Quantification Table

R1-D-048

~~Old 7GLA1 - related .0016 x reg hours~~ Overtime at 1.5x Laundry 2.67% and overtime at 2x Laundry 78%

1.4.3)3 ODCs

Based on actuals of charge #'s 7GLA1&2

ODC 600 - None
ODC 700 - $229/FTE

R1-F01-026

ODC Travel - $~~103~~158/FTE

1.4.3)4 Subcontracts/Materials

Subcontracts:

~~Unitec launder of modesty clothing: $10,000/month (25% of total laundry service for 900 wage & Wise workers) = $10,000/900 = $11.11/month for wage or Wise worker~~

R1-F01-026

PBS01 Laundered Modesty Clothing

	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10
Wage FTE	545	543	548	458	328	266	226	127	91	78
Launder $	101,733	121,632	122,752	102,592	73,472	59,584	50,624	28,448	20,384	17,472

Materials:

General Materials: $594/FTE

Additional Materials:

R1-F01-026

Laundry Winter Clothing (Carharts) Purchase

	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10
Manpower - FTE Curve	545	543	548	458	328	266	226	127	91	78
Manpower x 25% FTE	136	136	137	115	82	67	57	32	23	20
$ cost	17,030	20,400	21,500	17,200	12,300	9,975	8,500	4,800	3,400	731

Laundry Supplies/Materials Purchase

	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10
Wage FTE	545	543	548	458	328	266	226	127	91	78
Clothing $	333,000	399,000	402,000	336,000	241,000	195,000	166,000	93,000	67,000	14,000

*Unit cost $400k/545 = $734/FTE

~~**Materials/FTE $16,464 (Porter Supplies, Safety Clothing and Equipment)**~~
~~**Materials/Year NONE**~~

Quantification Table - Porters/Laundry Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)			
Activity	**Sub-Activity**	**Calc Type**	**Calculations**
1.4.1)2 Management Support			
The Manager of the Porter/Laundry group is responsible for performing all managerial activities associated with the Porters and the Laundry Facility.	General managerial duties	PJ	.4 FTE Proj.Mgr.
	Interfacing with the client, laundry subcontractor, FAT&LC, and Industrial Relations.	PJ	.3 FTE Proj. Mgr.
	Direct oversight of employees	PJ	.3 FTE Proj. Mgr.
Administrative Support	Provide clerical support for the Laundry and Porter groups	PJ	.4 FTE Proj.Mgr.
	Track attendance and overtime for the Laundry and Porter team members.	PJ	.2 FTE Clerk
	Use credit card for purchasing office supplies, safety materials, equipment and miscellaneous supplies as needed by Laundry and Porters, plus various other groups.	PJ	.2 FTE Clerk
	Compile information provided by the Laundry Facility to track clothing and PPE distribution. Prepare and submit journal vouchers so the appropriate projects and groups can be charged for the Laundry service.	PJ	.2FTE Clerk
1.4.2)2 Porter Activities			
Porter Supervision is responsible for the general conduct of work activities and oversight of employees.		HD, PJ	1.5 FTE Supervisor/ 30 porters (current ratio)
	General supervisory duties		.3 Supervisor
	Directing day-to-day activities of porters and providing direct employee oversight.		.4. Supervisor
	Interfacing with Industrial Relations and FAT&LC when issues are identified.		.1 Supervisor
	Interfacing with customers regarding Porter Activities		.2 Supervisor

Quantification Table - Porters/Laundry Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)			
Activity	**Sub-Activity**	**Calc Type**	**Calculations**
1.4.2)2 Porter Activities (Continued)			
Restroom Cleaning	*Daily* Remove all trash and reline the containers. Insure all toilets are flushed and unclogged. Wipe down sinks, counter tops, and paper towel dispensers and hand dryers including chrome fixtures and piping Clean mirrors. Clean toilets. Inspect and fill dispensers (paper towels, soap, toilet paper, toilet seat covers, feminine products, etc). Inspect stall walls and spot clean. Damp mop floors. Mop around all stalls, toilets, and sinks. *Weekly* Wipe down stall walls. Wipe down showers and shower fixtures.	HD	1 Porter x .44 minutes x 137 restrooms = 60 hrs. Daily
Office Cleaning	*Daily* Removal all trash and reline containers Inspect and spot clean walls. *Weekly* Dust ceilings, lights, and ledges that are accessible. Clean baseboards. Dust and mop floor. Inspect and spot clean all windows. Vacuum floors.	HD	1 Porter x 17 minutes x 1941 offices = 330 hrs. daily
Annual Floor Cleaning	Clean and shampoo carpets. Scrub, strip, and wax floors.	PJ	2 porters x 4 hrs/trailer or facility (100 trailers, 23 facilities) = 984 hrs./yr.

Quantification Table - Porters/Laundry Historical Data = (HD) Industry Standard = (IS) Composite of HD & IS = (Comp) Professional Judgement = (PJ)			
Activity	**Sub-Activity**	**Calc Type**	**Calculations**
1.4.2)2 Porter Activities (Continued)			
Shower/Locker Room Cleaning	*Daily Shower* Check shower area for any debris or clothing. *Weekly Shower* Spray disinfectant on all surfaces in the shower area, wait 5 minutes, wipe down all surfaces. *Daily Locker Room* Remove all trash and reline containers. Pick up all debris and discard in appropriate containers. Inspect and spot clean walls. Clean restrooms, per instruction. Dust mop floors. Mop floors, per instruction. *Weekly Locker Room* Wipe down lockers and doors. Dust ceilings, lights, ledges, locker tops, and vents.	HD	1 Porter x 2.2 hrs. x 7 showers/locker rooms = 15.4 hrs./day
Conference Room Cleaning	*Daily* Remove all trash and reline containers *Weekly* Dust the ledges, baseboards, and furniture in the conference room Inspect and spot clean walls and windows Clean tabletops and equipment Dust mop floors or vacuum Mop floors	HD	1 Porter x .45 min x 48 conf. Rooms = 36 hrs. day

Quantification Table - Porters/Laundry Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)			
Activity	**Sub-Activity**	**Calc Type**	**Calculations**
1.4.2)2 Porter Activities (Continued)			
Hallway /Stairwell Cleaning	*Daily (Hallways)* Inspect and spot clean glass on doors and partitions. Check for gum on floors; remove as necessary. Sweep floors. *Weekly (Hallways)* Damp dust doorframes and kick plates. Mop floors. Dust ceilings, ledges, lights, and vents that are accessible. Vacuum and sweep all walk mats. *Weekly (Stairwells)* Dust ceilings, ledges, lights, and vents that are accessible. Coordinate high level cleaners as needed for the higher areas that need dusting and cleaning. Damp dust doorframes and kick plates. Spot clean glass. Sweep steps. (Check all corners of the steps and landings to be sure they are free of debris and wax buildup) Spot check for gum and remove as needed. *Bi-Weekly (Stairwells)* Wipe down railings and walls as needed. Vacuum mats and mop steps.	HD	1 PT x 2 hrs/day x 4 areas = 8 hrs. day

Quantification Table - Porters/Laundry Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)			
Activity	**Sub-Activity**	**Calc Type**	**Calculations**
1.4.2)2 Porter Activities (Continued)			
Control Point Cleaning	*Daily* Remove any debris from the area. Removes trash and reline container. Trash must be placed in Rad bags, taped and staged for removal. Contact Rad personnel working in the area when preparing to sweep and mop, as each area is done differently depending on the work activity in the area. Vacuum all mats. *Weekly* Dust ceilings, ledges, lights, and vents that are accessible. Damp dust doorframes and kick plates.	HD	1 Porter x 1 hr. x 10 control points = 10 hrs./day
Cafeteria Cleaning	*Daily* Remove any loose debris. Wipe down tables. Removes trash and reline containers. Remove pop cans. Spot-check for gum; remove as necessary. Sweep area. Mop area. *Weekly* Wipe down chairs. Clean trash and pop can receptacles. Dust baseboards and equipment. Wipe down all equipment and vending machine	HD	1 Porter x 3 hr. = 3 hr/day.

Quantification Table - Porters/Laundry Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)			
Activity	**Sub-Activity**	**Calc Type**	**Calculations**
1.4.2)2 Porter Activities (Continued)			
Storage Area Cleaning	*Daily* Ensure all chemicals are stored properly. Remove excess items. Dirty mop heads need to be removed and taken to laundry for washing. Store damp mop heads properly. Do inventory of cleaning chemicals and supplies. Report any mechanical problems with equipment, so the proper repairs can be made. *Weekly* Sweep and mop floors. Clean sinks.	HD	1 Porter x .13 mins. x 71 storage areas = 9.2 hrs. day
Green is Clean Program	Inspect contents of bags, seal bags with tape, mark origin and date on bag and transport bags to designated storage bins.	HD	1 Porter x 7.75 hrs/day
1.4.3)2 Laundry			
Laundry Supervision			1 Supervisor/10 Laundry Workers
	General supervisory duties	PJ	.3 Supervisor
	Directing day-to-day activities of the laundry and providing direct employee oversight.		.4 Supervisor
	Interfacing with Industrial Relations and FAT&LC when issues are identified.		.1 Supervisor
	Interfacing with customers regarding Porter Activities		.2 Supervisor
Clothing Distribution at Services Bldg.	Hand out clothing and track distributed/returned clothing	HD, PJ	3 LW x 2.5 hrs./day = 7.5 hrs. daily
R1-F01-027 Manage Laundry subcontract invoice and administration to assure project cost are allocated appropriately		HD, PJ	Clerk 4 hours/day
Locker Rooms	Men and women's locker rooms are picked up twice a day and dirty clothing gathered, placed in proper containers and taken to Laundry Facility for shipment	HD, PJ	2 LW x 2 hr. x 2 daily = 8 hrs. daily
	Towels placed in locker rooms	HD, PJ	1 LW x 1 hr. = 1 hr. daily

Quantification Table - Porters/Laundry Historical Data = (HD); Industry Standard = (IS); Composite of HD & IS = (Comp); Professional Judgement = (PJ)			
Activity	**Sub-Activity**	**Calc Type**	**Calculations**
Preparation for off-site Laundry Shipment	Soiled PPE and Clothing is placed in bags	HD, PJ	2 LW x 2 hr. x 2 daily = 8 hrs. daily
	Rad Techs surveys inside and outside of containers	HD, PJ	1 RT x 2 hr x 2/wk. = 4hrs/wk.
	Bags surveyed, weighed and placed in containers	HD, PJ	1RT x 3 hrs x 2/wk. = 6 hrs./wk. 2 LW x 3 hrs. x 2/wk = 12 hrs/wk
1.4.3)2 Laundry (Continued)			
Preparation for off-site Laundry Shipment (Continued)	Doors shut, locked and taped	HD, PJ	1 LW X .5 hrs.x 2/wk = 1 hr/wk.
	Weights logged	HD, PJ	1LW X .5 hrs.x 2/wk = 1 hr/wk.
Shipment	MVO uses fork lift to place containers in sealand	HD, PJ	1 MVO x 2 hrs x 2/wk = 4 hrs/wk.
	Laborer arranges containers in sealand	HD, PJ	2 Laborers x 2 hrs. x 2/wk = 8 hr/wk.
	Rad Tech seals container and places invoice sticker on container	HD, PJ	1 RT x .5 hrs.
	Sealand is moved to RIMIA and weighed	HD, PJ	1 MVO + 1 LW x 1 hr. x 2/wk =4 hrs/wk.
	QA inspections on outgoing shipment, trailer,	HD, PJ	1 QA x 4 hrs. x 2/wk = 8 hrs/wk
Receiving a Shipment	Fork Truck driver removes containers from sealand	HD, PJ	1 MVO x 2 hrs. x 2/wk = 4 hrs/wk
	QA inspects incoming shipment	HD, PJ	1 QA x 1 hr.
	Laundry workers place clean clothing in proper containers	HD, PJ	5 LW x 2 hrs. x 2/wk = 20 hrs./wk
Storeroom Activities	Issue boots, pull new clothing from shelves to put into system for use, stock new clothing, ensures maximum/minimum stock levels are maintained and fill PPE and respirator orders for the SCA.	HD, PJ	1 SA x 4 hrs/day = 4 hrs./day

Quantification Table - Porters/Laundry
Historical Data = (HD) Industry Standard = (IS) Composite of HD & IS = (Comp) Professional Judgement = (PJ)

Activity	Sub-Activity	Calc Type	Calculations
Satellite Change Areas Bag and remove soiled clothing and PPE. Stock SCAs with clothing, PPE, and respirators (T-shirts, socks, boxer shorts, panties, bras, respirators, washable yellow PPE, shoecovers, skull caps, hoods) place orders for following day	T-94 SCA	HD	2 LW x 4 hrs = 8 hrs/day
	T-93 SCA	HD	2 LW x 3 hrs = 6 hrs/day
	T-96 SCA	HD	2 LW x 2.5 hr = 5 hr/day
	T-139 SCA	HD	2 LW x 1.5 hrs. = 3 hr/day
	T-512 SCA	HD	1 LW x 1 hr. = 1 hr/day
	T-95 SCA	HD	1 LW x 2.5 hrs. = 2.5 hr/day
1.4.3)2 Laundry (Continued)			
Satellite Change Areas Bag and remove soiled clothing and PPE. Stock SCAs with clothing, PPE, and respirators (T-shirts, socks, boxer shorts, panties, bras, respirators, washable yellow PPE, shoecovers, skull caps, hoods) place orders for following day (Continued)	Lab/DOP Shop SCA	HD	2 LW x 1 hr = 2 hr/day
	Building 68 SCA	HD	2 LW x .5 hrs. = 1 hr. day
	Building 80 SCA	HD	2 LW x 2 hrs. = 4 hrs./day
	AWWT SCA	HD	2 LW x 1 hr. = 2 hr./day
	T-517 SCA	HD	2 LW x .5 hr. = 1 hr./day
	3A SCA	HD	2 LW x 1 hr. = 2 hr./day
	T191 SCA	HD	2 LW x 1.5 hrs. = 3 hr/day
	Building 64 SCA	HD	2 LW x 1 hr. = 2 hr./day
Weekly Laundry	Receive porter items for cleaning	HD, PJ	1 LW x .5 hrs = .5 hrs/wk
	Pick up and return laundry to Medical	HD, PJ	1 LW x .5 hrs = .5 hrs/wk
	Laundry workers pick up training PPE for laundering	HD, PJ	1 LW x .5 hrs = .5 hrs/wk
Respirator Facility	Receive and organize clean respirators	HD, PJ	2 x 4 hrs. x 2/wk. = 16 hrs./wk.
	Remove respirators and nosecups from bags and prepare for smears	HD, PJ	2 x 4 hrs.x 2/wk. = 16 hrs./wk.
	Perform smears	HD, PJ	1RT x 1 hrs. x 2/wk. = 2 hr./wk
	Process respirators - physical, visual inspections and direct frisk	HD, PJ	1 RT x 10 min/respirator x 600 respirators/wk. = 100 hrs./wk.

R1-F01-003

Quantification Table - Porters/Laundry Historical Data = (HD) Industry Standard = (IS) Composite of HD & IS = (Comp) Professional Judgement = (PJ)			
Activity	**Sub-Activity**	**Calc Type**	**Calculations**
	Bag, seal and box respirators. Scan box with scanner and place in supply system	HD, PJ	1 RT x 3 min/ respirator x 600 respirators/wk. = 30 hrs. wk.
	Instrument source check for monitoring of incoming PPE. Daily rad survey in Laundry loading and unloading area. Complete material unrestricted release forms for laundry clothing items	HD, PJ	1 RT x 1.2 hr. x 2/wk. = 2.4 hrs/wk.
	Maintain paperwork associated	HD, PJ	1 RT x 2 hr. = 2 hr./wk.
	Quality control checks	HD, PJ	1 RT x .3 hrs x 5 days = 1.5 hrs./wk.

SECTION 4

2.0 MANPOWER PLANS

Manpower Planning Sheet (CR2)

MPS # 1AB04 PORTERS/LAUNDRY

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
202 PLANT 5 D&D	10/02/2000	08/28/2001		xxx xxx xxx xx					
203 PLANT 6 D&D	10/02/2000	04/09/2002		xxx xxx xxx xxx	xxx xxx x				
204 BUILDING 64/65 D&D	07/01/2004	09/28/2004					xxx		
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
210 OU1 COMPLEX D&D	12/03/2004	07/29/2005						x xxx xxx x	
211 OU4 SILOS SUPERSTRUCTURE D&D	10/02/2006	10/31/2007							
212 OFFICE TRAILER D&D	10/03/2005	04/03/2007							xxx xxx xxx xxx
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	
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							
632 Area 5: Excavation	10/03/2005	03/31/2008							xxx xxx xxx xxx
638 Natural Resources Restoration	10/01/2003	12/31/2009					xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx
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	

Maintenance	Project Support Manager	90.20	3.4	3.4	3.4	3.4	3.3	3.3	3.2	3.1	3.1	3.1	3	3	3	3	3.1	3	2.5	2.4	2.1	2.1	2.9	2.6	2.6	2.5
Administration	Clerks	42.10	1.8	1.8	1.8	1.8	1.7	1.7	1.6	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.5	1.5	1.3	1.3	1.1	1.1	1.2	1	1	1
General Labor	Laundry Worker	231.20	9.5	9.5	9.5	9.5	10	10	9	8.5	8.5	8.5	8	8	8	7.8	7.8	7.8	7.5	7.5	7.3	7.3	6.6	6.1	6.1	6.1

Manpower Planning Sheet (CR2)

MPS # 1AB04 PORTERS/LAUNDRY

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
202 PLANT 5 D&D	10/02/2000	08/28/2001																				
203 PLANT 6 D&D	10/02/2000	04/09/2002																				
204 BUILDING 64/65 D&D	07/01/2004	09/28/2004																				
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																				
210 OU1 COMPLEX D&D	12/03/2004	07/29/2005																				
211 OU4 SILOS SUPERSTRUCTURE D&D	10/02/2006	10/31/2007	xxx	xxx	xxx	xxx	x															
212 OFFICE TRAILER D&D	10/03/2005	04/03/2007	xxx	xxx	x																	
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																				
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													
632 Area 5: Excavation	10/03/2005	03/31/2008	xxx	xxx	xxx	xxx	xxx	xxx														
638 Natural Resources Restoration	10/01/2003	12/31/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	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																				
Maintenance	Project Support Manager		2.3	2.3	2.3	2.3	2.1	2.1	1.9	0.9	0.7	0.7	0.7	0.7	0.7	0	0	0	0	0	0	0
Administration	Clerks		0.9	0.9	0.9	0.9	0.8	0.8	0.6	0.5	0.3	0.3	0.3	0.3	0.3	0	0	0	0	0	0	0
General Labor	Laundry Worker		4.1	4.1	4.1	4.1	4.1	2.1	2.1	2.1	2	2	2	2	2	0	0	0	0	0	0	0

Manpower Planning Sheet (CR2)

MPS # 1AB04 PORTERS/LAUNDRY

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
	General Labor	Porter		495.50	20.8	20.8	20.8	20.8	21.1	21.1	20.9	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.5	20.5	19	19	18	18	17.2	14.6	14.6	14.6
	Environmental Safety & H	Safety Tech.		46.30	1.9	1.9	1.9	1.9	2.1	3.9	2	1.9	1.9	1.9	1.7	1.7	1.6	1.6	1.6	1.6	1.5	1.5	1.4	1.4	1.3	1.1	1.1	1.1
	Environmental Safety & H	Rad Tech		47.30	1.4	1.4	1.4	1.4	2.5	2.5	2.4	2.3	2.3	2.3	1.8	1.8	1.8	1.8	1.8	1.8	1.6	1.6	1.5	1.5	1.4	0.9	0.9	0.9
	QA/QC	QA Engineer		31.60	1.3	1.3	1.3	1.3	1.4	1.4	1.3	1.3	1.3	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1	1	0.9	0.9	0.8	0.6	0.6	0.6
	General Labor	General Laborer		27.20	1.3	1.3	1.3	1.3	1.2	1.2	1.1	1	1	1	0.9	0.9	0.9	0.9	0.9	0.9	0.7	0.7	0.6	0.6	0.5	0.4	0.4	0.4
	Transportation Labor	Motor Vehicle Operator		25.20	1.3	1.3	1.3	1.3	1.2	1.2	1	1	1	1	0.9	0.9	0.9	0.9	0.9	0.9	0.7	0.7	0.6	0.6	0.5	0.4	0.4	0.4
		Sheet Totals:		1036.60	42.70	42.70	42.70	42.70	44.50	46.30	42.50	41.00	41.00	41.00	39.30	39.30	39.20	39.00	39.30	39.20	35.80	35.70	33.50	33.50	32.40	27.70	27.70	27.60

Manpower Planning Sheet (CR2)

MPS # 1AB04 PORTERS/LAUNDRY

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
General Labor	Porter		3.6	3.6	3.6	3.6	3	2.1	1.7	1.7	1.5	1.5	1.5	1.5	1.5	0	0	0	0	0	0	0
Environmental Safety & Health	Safety Tech.		0.6	0.6	0.6	0.6	0.5	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0	0	0	0	0	0	0
Environmental Safety & Health	Rad Tech		0.9	0.9	0.9	0.9	0.8	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0	0	0	0	0	0	0
QA/QC	QA Engineer		0.6	0.6	0.6	0.6	0.5	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0	0	0	0	0	0	0
General Labor	General Laborer		0.4	0.4	0.4	0.4	0.4	0.3	1.3	0.3	0.2	1.1	0.2	0.2	0.2	0	0	0	0	0	0	0
Transportation Labor	Motor Vehicle Operator		0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0	0	0	0	0	0	0
		Sheet Totals:	13.80	13.80	13.80	13.80	12.60	8.60	8.80	6.70	5.50	6.40	5.50	5.50	5.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00

SECTION 4

3.0 ESTIMATE

ASVC4

PORTERS/LAUNDRY

09/07/2001
12:10 PM

PBS: 01
WBS: 1.1.A.B
CTRL ACCT: ASVC
CHARGE NO: ASVC4
COMMENT NO: F01-005 & F01-025

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
**** STATED IN FY01 DOLLARS ****
(1 FTE EQUALS 1747 HOURS)

DATE: 13 MAY 2001
PROJECT MGR: R. NICHOLS
CAM: R. NICHOLS
PREPARED BY: L. HAMPSHIRE
ALL FISCAL YEARS

Resource: CLERKS **CLERKS** **EOC:** LABOR
Res Dept: **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:	2,613.6	2,836.7	2,532.2	2,534.1	2,086.1	1,825.8	1,572.3	1,175.7	524.1	126.3
Cum Hours:	2,613.6	5,450.3	7,982.5	10,516.6	12,602.7	14,428.5	16,000.8	17,176.5	17,700.6	17,826.9
Yr Total Cost:	62,439	71,332	67,445	71,475	62,327	58,280	54,408	42,882	21,243	5,277
Cum Total Cost:	62,439	133,771	201,216	272,690	335,017	393,297	447,706	490,588	511,830	517,107

Resource: GLMNT **GEN LABOR MAINT** **EOC:** LABOR
Res Dept: **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:	1,887.6	1,963.2	1,658.7	1,572.3	1,130.4	738.2	698.8	1,014.3	748.1	84.2
Cum Hours:	1,887.6	3,850.8	5,509.5	7,081.8	8,212.2	8,950.4	9,649.2	10,663.5	11,411.6	11,495.8
Yr Total Cost:	46,133	50,503	45,196	45,368	34,551	24,106	24,738	37,847	31,020	3,599
Cum Total Cost:	46,133	96,636	141,833	187,201	221,751	245,857	270,596	308,442	339,462	343,061

Resource: LANDRY **LAUNDRY WORKER** **EOC:** LABOR
Res Dept: **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:	14,406.0	16,978.5	14,939.6	14,200.7	13,393.5	11,158.7	7,310.7	4,635.7	3,625.1	871.9
Cum Hours:	14,406.0	31,384.5	46,324.1	60,524.8	73,918.3	85,077.0	92,387.7	97,023.4	100,648.5	101,520.4
Yr Total Cost:	362,054	446,328	415,762	418,230	418,099	370,367	261,966	175,724	153,574	38,033
Cum Total Cost:	362,054	808,382	1,224,143	1,642,374	2,060,473	2,430,840	2,692,806	2,868,530	3,022,104	3,060,137

Resource: MAT300 **MATERIAL OBJCLASS300** **EOC:** MATERIAL
Res Dept: 950 **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:	423,167.0	521,083.7	515,750.7	467,679.5	340,483.0	277,026.0	195,632.0	110,861.0	78,726.4	15,553.7
Cum Units:	423,167.0	944,250.7	1,460,001.5	1,927,681.0	2,268,164.0	2,545,190.0	2,740,822.0	2,851,683.0	2,930,409.4	2,945,963.1
Yr Total Cost:	423,167	535,153	543,977	507,087	379,509	317,734	230,886	134,633	98,380	20,000
Cum Total Cost:	423,167	958,320	1,502,297	2,009,384	2,388,894	2,706,627	2,937,513	3,072,146	3,170,527	3,190,527

INCLUDES ESCALATION COSTS

09/07/2001
12:10 PM

Resource: MVOOPR **MOTOR VEHICLE OPER** **EOC:** LABOR
Res Dept: **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:	1,887.6	1,918.4	1,658.7	1,572.3	1,130.4	738.2	698.8	566.3	349.4	84.2
Cum Hours:	1,887.6	3,806.0	5,464.7	7,037.0	8,167.4	8,905.6	9,604.4	10,170.7	10,520.1	10,604.3
Yr Total Cost:	54,476	58,276	53,370	53,573	40,799	28,466	29,212	24,952	17,108	4,250
Cum Total Cost:	54,476	112,752	166,122	219,695	260,494	288,960	318,172	343,124	360,232	364,482

Resource: ODC700 **ODC 700** **EOC:** ODC
Res Dept: 950 **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:	1,813.0	2,299.5	2,056.5	1,742.0	1,695.0	1,428.0	955.3	579.7	466.6	106.4
Cum Units:	1,813.0	4,112.5	6,169.0	7,911.0	9,606.0	11,034.0	11,989.3	12,569.0	13,035.6	13,142.0
Yr Total Cost:	1,813	2,362	2,169	1,889	1,889	1,638	1,127	704	583	137
Cum Total Cost:	1,813	4,175	6,344	8,232	10,122	11,760	12,887	13,591	14,174	14,311

Resource: ODCTRVL **TRAVEL RESOURCE** **EOC:** ODC
Res Dept: 950 **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:	5,622.0	6,883.1	4,979.8	5,179.4	4,874.3	3,978.4	2,182.0	324.8	273.3	50.7
Cum Units:	5,622.0	12,505.1	17,484.8	22,664.2	27,538.5	31,516.9	33,698.9	34,023.7	34,297.0	34,347.7
Yr Total Cost:	5,622	7,069	5,252	5,616	5,433	4,563	2,575	394	341	65
Cum Total Cost:	5,622	12,691	17,943	23,559	28,992	33,555	36,130	36,525	36,866	36,931

Resource: PJSMGR **PROJECT SUPPORT MGR** **EOC:** LABOR
Res Dept: **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:	4,936.8	5,631.9	5,327.4	5,285.2	3,954.0	4,612.8	4,018.1	3,049.9	1,222.9	294.7
Cum Hours:	4,936.8	10,568.7	15,896.1	21,181.3	25,135.3	29,748.1	33,766.2	36,816.1	38,039.0	38,333.7
Yr Total Cost:	225,710	271,029	271,553	285,286	226,082	281,789	266,098	212,888	94,859	23,564
Cum Total Cost:	225,710	496,740	768,293	1,053,579	1,279,661	1,561,450	1,827,548	2,040,436	2,135,295	2,158,859

INCLUDES ESCALATION COSTS

Resource: PORTER **PORTER** **EOC:** LABOR
Res Dept: **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:	30,582.6	36,934.3	36,090.3	36,162.1	32,676.0	26,866.6	6,368.2	3,738.9	2,652.1	639.1
Cum Hours:	30,582.6	67,516.9	103,607.2	139,769.3	172,445.3	199,311.9	205,680.1	209,419.0	212,071.1	212,710.2
Yr Total Cost:	753,023	957,411	990,768	1,050,969	1,006,231	883,919	227,122	140,536	110,758	27,512
Cum Total Cost:	753,023	1,710,435	2,701,203	3,752,172	4,758,403	5,642,321	5,869,443	6,009,979	6,120,737	6,148,249

Resource: QACENG **QA ENGINEER** **EOC:** LABOR
Res Dept: **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	2,356.8	2,182.8	2,096.4	1,654.5	1,127.0	1,048.2	608.5	349.4	84.2
Cum Hours:	1,887.6	4,244.4	6,427.2	8,523.6	10,178.1	11,305.1	12,353.3	12,961.8	13,311.2	13,395.4
Yr Total Cost:	86,754	114,014	111,848	113,754	95,098	69,208	69,781	42,697	27,245	6,768
Cum Total Cost:	86,754	200,768	312,616	426,370	521,468	590,676	660,457	703,154	730,399	737,167

Resource: RADTEC **RAD TECH** **EOC:** LABOR
Res Dept: **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:	2,032.8	4,234.3	3,576.6	3,144.6	2,702.7	1,769.3	1,572.3	735.1	349.4	84.2
Cum Hours:	2,032.8	6,267.1	9,843.7	12,988.3	15,691.0	17,460.3	19,032.6	19,767.7	20,117.1	20,201.3
Yr Total Cost:	69,278	151,893	135,895	126,525	115,192	80,586	77,616	38,248	20,203	5,019
Cum Total Cost:	69,278	221,170	357,065	483,591	598,782	679,349	756,964	795,212	815,415	820,433

Resource: S&HTEC **SAFETY TECH** **EOC:** LABOR
Res Dept: **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:	2,758.8	4,320.3	3,142.7	2,795.2	2,528.0	2,000.5	1,048.2	608.5	349.4	84.2
Cum Hours:	2,758.8	7,079.1	10,221.8	13,017.0	15,545.0	17,545.5	18,593.7	19,202.2	19,551.6	19,635.8
Yr Total Cost:	79,757	131,467	101,294	95,406	91,400	77,275	43,894	26,858	17,138	4,257
Cum Total Cost:	79,757	211,224	312,518	407,924	499,324	576,599	620,493	647,351	664,489	668,746

Resource: SERVSUB **SUBS** **EOC:** SUBCONTRACTORS
Res Dept: 950 **Overtime:** MODY **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

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Yr Units:	101,733.0	121,632.0	122,752.0	102,592.0	73,472.0	59,584.0	50,624.0	28,448.0	26,000.0	11,856.0
Cum Units:	101,733.0	223,365.0	346,117.0	448,709.0	522,181.0	581,765.0	632,389.0	660,837.0	686,837.0	698,693.0
Yr Total Cost:	101,733	124,916	129,470	111,237	81,893	68,340	59,747	34,548	32,491	15,246
Cum Total Cost:	101,733	226,649	356,119	467,356	549,249	617,589	677,335	711,884	744,375	759,620

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:	62,993.4	77,174.4	71,109.0	69,362.9	61,255.6	50,837.1	24,335.6	16,132.9	10,169.9	2,353.0
Cum Hours:	62,993.4	140,167.8	211,276.8	280,639.7	341,895.3	392,732.4	417,068.0	433,200.9	443,370.8	445,723.8
Yr Total Cost:	2,271,960	2,921,753	2,873,999	2,886,414	2,558,504	2,266,251	1,349,171	912,910	624,944	153,727
Cum Total Cost:	2,271,960	5,193,713	8,067,712	10,954,125	13,512,629	15,778,880	17,128,051	18,040,961	18,665,905	18,819,632

CAM _____ CONTROL TEAM _____

INCLUDES ESCALATION COSTS

WBS DICTIONARY
CONTROL ACCOUNT/CHARGE NUMBER

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50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
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ASVC5	FACILITY SUPPORT	

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Subcontractors
Materials
ODC's

b. TECHNICAL CONTENT:

The Facilities Support scope is comprised of six site support service functions including: Management Support, Facilities (oversight/ownership programs), Facilities Engineering, Space Management, Utilities, and Radiological Surveillance. The labor and material budgets associated with the various services to support site operations are included in this charge number as follows:

MANAGEMENT SUPPORT

This Section provides the management and administrative oversight for the Facilities Support Department and is directly responsible for management of salary and wage personnel within this department, providing administrative support to the department, management reporting, providing/procuring the applicable training, tools and equipment for department personnel, participating in various committees/portfolio assignments and ensuring compliance with applicable site requirements and safety programs.

FACILITIES ENGINEERING

Facilities Engineering performs multi-discipline engineering services, including Civil, Electrical, Mechanical, Surveying as well as Hoisting and Rigging in support of site facility infrastructure system/components,

Project Manager	Control Account Manager	Control Team Manager
		Rodney Whitaker

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14. ELEMENT TASK DESCRIPTION

maintenance, operating facilities and discrete projects. The deliverables from this level of effort function include discipline technical expertise and engineered technical documentation in the form of various work orders, permissives, instructions, plans, estimates, reports, drawings, sketches, designs, surveying data, and specifications.

FACILITIES

Facilities provides oversight to implement a facility management program for projectized and non-projectized facilities including trailers, buildings, temporary structures, storage, grounds, parking lots, and storage pads. This program ensures site facilities are compliant with local, state, and federal facility regulations, as well as site required facility and safety requirements using designated facility owners to coordinate work activities and implement facility requirements.

UTILITIES

Utilities provides continuous coverage for monitoring all site utility systems and is responsible for the generation/distribution of steam and compressed air and the treatment/distribution of various site waters (potable water, process water, fire protection water, cooling water, boiler feed water, brine water, raw well water). Utilities is also responsible for maintaining the lift stations pickup points and infrastructure to gather sewage at the site to deliver to Advanced Waste Water Treatment (AWWT) facility for processing. This scope also oversees the distribution of electricity, as well as providing main utility verifications of the natural gas, city water and electric paid for by the Department Of Energy. Due to the 24 hour/7 day work schedule, the Utility Engineers serve as the Management presence and the designated Assistant Emergency Duty Officer during emergencies for on and off-shifts.

SPACE MANAGEMENT

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14. ELEMENT TASK DESCRIPTION

Space Management is responsible for the oversight and logistic office/functional space planning/scheduling in support of facility and personnel relocation activities for the FEMP, as well as providing oversight and ensuring implementation of the site Facility Infrastructure Integration and Closure Plan (FIICP). This scope also includes the administration and management of the on-site and off-site facility leases.

RADIOLOGICAL SURVEILLANCE

This Section provides contamination, radiation survey and job coverage to general Access Control Points, general site Radiological Monitoring, Air Quality Sample Collection, 24-hour EOC and Emergency Response to comply with DOE Radiological Control Manual, RM-0020 and Site Environmental Safety and Health Plan for non-projectized facilities.

c. SCOPE OF WORK:

MANAGEMENT SUPPORT

- Space coordination
- Commitment tracking and Lesson Learned tracking
- Database and Document management
- Maintain office supplies, stores, and credit card purchasing
- Records Custodian and document control
- Management of Safety Workgroup walk-through documentation; section Safety Representative
- Provide budget for the procurement of required training, certifications, and licensing to support Facility Support department scope (includes fees and incidental travel expenses), as well as, tools, equipment, facilities, hardware, software and supplies.
- Assist/Participate in site document review processes and Subject Expert (SE)

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ASVC5	FACILITY SUPPORT	

14. ELEMENT TASK DESCRIPTION

for site procedure SH-0018 which includes conducting annual reviews and ensuring the procedures are revised as applicable.
- Chair Sitewide Electrical Safety Committee at a minimum of once per quarter
- Task Team/Portfolio assignments
- Baseline and budget planning/oversight
- Management reviews/reports including weekly/monthly activity reports
- Participate and ensure department personnel are proactive in safety initiatives and programs, workgroup activities, reports and walk-throughs.
- Conduct and attend Management meetings
- Provide budget for labor associated with support from Project Control, Quality Control, Radiation Safety, Industrial Hygiene, and Industrial Safety functions.

FACILITIES ENGINEERING

Facilities Engineering provides Civil, Structural, Electrical, and Mechanical services in response to an average of 75 active Requests for Engineering Services (RES) per month to perform the following:

- Design and perform functional engineering tests
- System troubleshooting and consultation
- Provide subject matter functional expertise on infrastructure equipment and systems.
- Provide technical expertise and representation on special Task Teams/special committees (i.e. Sitewide Electrical Committee) .
- Create technical instructions and plans
- Generate engineering design ROM Cost Estimates
- Perform Conceptual Feasibility Studies
- Conduct facility condition assessments
- Perform Title I, II, and III engineering services
- Perform technical reviews, analysis, and evaluations of site documents
- Generate Engineering standards and provide subject matter expertise in interpreting codes and standards.
- Miscellaneous non-RES activity (i.e. small scale, short-term consultations, reviews, walk-downs, field inspections, etc.)
- Generate design packages

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ASVC5	FACILITY SUPPORT	

14. ELEMENT TASK DESCRIPTION

- Provide CADD production services in direct support Facility Engineering and Space Management scopes.

Hoisting and Rigging Engineering provides technical oversight to the site rigging, tool crib, and fall protection programs which includes the following:

- Design lift plans, provide approval authority for all site rigging/lift plans, and provide direct oversight of all critical lifts.
- Provide Subject Matter Expertise for site Hoisting and Rigging Manual (RM-0045), Site rigging procedures (MT-0005 and SH-0023) and technical interface with Fluor Corporate Rigging Program.
- Inspect and approve all vendor/contractor mobile crane prior to use on site
- Approve procurement of rigging equipment
- Provide rigging training/instruction for all new contractors and Fluor Fernald construction personnel.

Surveying Engineering services include the following:

- Penetration permitting coordination services to all projects outside the former production controlled areas.
- Provide general surveying and construction service sitewide
- Furnish field survey data in support of as-built drawing generation
- Provide field location data on site underground infrastructure systems
- Provide field confirmation/correction for facilities location mapping

FACILITIES

- Facilities is responsible for the designation of the Area Facility Owners and works with project organization to appoint a facility owner as a projectized facility point of contact.
- Ensure that the Area Facility Owners (AFO) and the Facility Owners (FO) are compliant with TQP and issue applicable required reading to AFO/FO for new/revised requirements.
- Determine and initiate frequency of facility condition assessment and evaluations.

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ASVC5	FACILITY SUPPORT	

14. ELEMENT TASK DESCRIPTION

- Interface, communicate, and inform DOE facility counterpart of issues of concern for assigned facilities on a weekly basis.
- Establish and maintain facility owner list and database. This database includes phone and pager numbers of owners and alternates, facility location, and history. Track and transfer facility ownership of 500+ facilities.
- Post signage to facilities with updated information of facility owner, alternate Facility owner, emergency contact, and property management phone numbers.

Conducts periodic facility inspections and housekeeping tours to include the following activities:

- Inspects 31 grids per month to ensure the surrounding grounds (1100 acres) are maintained.
- Conduct inspections of 537 facilities per month to ensure active projectized/non-projectized facilities and their tenants/operations are in compliance with facility requirements as well as act as a liaison with applicable project/support organizations to ID property, miscellaneous material, and records for proper disposition or to implement repairs.

- Subject Experts for site procedure OP-1024 and OP-1025 to provide interpretation, conduct an annual review for program changes, and revise as applicable.
- Oversee the subcontracts for portable restroom facilities and ice machines

Facilities assists Maintenance work activities through:

- Review/approval of approximately 20 Maintenance work orders and 30 work requests weekly to ensure Facility Maintenance repairs follow the graded approach.
- Serves as a point of contact to resolve tenant's safety concerns and issues, create work orders (WO) when needed, and provide feedback on work order status
- Conduct pre-job walk downs to verify completeness of Maintenance work order packages and to notify team members effected by work activities (i.e. outages, repairs)
- Coordinate field activities related to removal of leased trailers

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ASVC5	FACILITY SUPPORT	

14. ELEMENT TASK DESCRIPTION

- Coordinate field activities related to outages and service interruptions
- Assist Maintenance with planning facility closure activities prior to acceptance/turnover to the D & D contractor including facility inspections, identify abandoned records for disposition, initiate excessing of salvageable equipment and removal of miscellaneous materials from the facility.

UTILITIES

Provide continuous 24 hours/7 days coverage to monitor the site utility systems including performing the following activities:

- Collection of various utility system meter readings
- Test Emergency Power Generators
- Provide fuel consumption data quarterly for state permitting reports
- Treat water used at the cooling tower and cooling water system and boiler feed water systems.
- Provide expertise on water systems, and back-flow preventers
- Monitor the FEMP fire pumps and hydrants
- Monitor, maintain, and operate #1 and #2 raw water (Old Production Wells) to supply raw well water for dust suppression. Water is supplied via piping system to three truck filling stations and two wheel-washing stations.
- Monitor and operate the four boilers located at the Boiler Plant and associated equipment used to generate steam, including treating the makeup water.
- Monitor and operate the three air compressors located at the Boiler Plant and associated Equipment used to generate compressed air.
- Monitor and operate the distribution of site steam system and two (2) Steam Chillers in the Lab Building.
- Monitor the condensate collection system
- Monitor and control emergency generators and heaters for site use
- Provide brine solution to AWWT operations and Oiler Services to the site
- Provide Oiler Services to the site
- Perform chemical accountability
- Perform the duties of the Assistant Emergency Duty Officer (AEDO) for the FEMP when on duty, including providing off-shift, on-site Management presence and an on-site alternate facility owner for responding/reporting emergencies. Also

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ASVC5	FACILITY SUPPORT	

14. ELEMENT TASK DESCRIPTION

perform the duties of the Emergency Duty Officer (EDO) when scheduled.

Utilities general administrative work activities include:

- Develop general plans including departmental procedures and policies for managing daily/long-term Utilities operations, re-routing utility services, providing backup or alternate utility services, isolating of utility services for facilities being environmentally remediated.
- Develop departmental Energy Isolation Plans (EIPs) and assist other team members with the development of their program/project Energy Isolation Plans or Specific Equipment Plans (SEPs).
- Walkdown, review drawings and verify steps to be taken for penetration permits to minimize the negative impact to site utilities.
- Support training associated with General Site Work Qualification and specific training as spelled out in the Utilities Training and Qualification Programs #025 (Utilities Engineer), #040 (Water Treatment), and #043 (Boiler Plant), as well as, retain the necessary state/licenses/certifications.
- Serve as the liaison between the main utility suppliers (Cinergy and Cincinnati Water Works) and Fluor Fernald.
- Coordinate the annual state inspections of all site boilers
- Collect data concerning energy consumption by the FEMP and satellite facilities.
- Provide forecasts of energy use and costs on an bi-annual and monthly basis as well as various reports and charts tracking energy use for DOE and Fluor Management.
- Verify the natural gas/electric and water usage as noted by CINergy and Cincinnati Water Works to assist DOE in verifying utility bills to be paid.
- Coordinate utility outages with Maintenance, Construction, and others
- Investigate and resolve problems and concerns within Utilities and related areas.
- Maintain records of operation including, but not limited to: water used, chemicals used, and tower levels, fuel oil usage, natural gas usage, steam generated.

SPACE MANAGEMENT

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14. ELEMENT TASK DESCRIPTION

Provide technical and administrative planning/scheduling in support of relocations and reconfigurations for Fluor, DOE, IG, and subcontractors and functional/operational (i.e. conference rooms, labs, storage, etc.) space including personnel, furniture, records, personal affects, equipment and data/voice telecommunications (computer/phone) which includes the following work activities:

- Interface with CADD to design office and functional space layouts, also with applicable site and Engineering organizations to develop/revise/obtain approvals for interior floor plans and update facility drawings.
- Provide technical support to Internal/External Project Organization originators to submit work orders and tickets for office and building layout configurations, assembling/disassembly of furniture, disconnect/ connect telephones, update FEMP Phone Book, move boxes and computers.
- Authorized to release stored furniture for reconfiguration layouts and excess damaged or unusable furniture to excess property.
- Procure miscellaneous small furniture parts to support the reuse of existing major furniture components inventory (i.e., modular walls, desks, overheads, etc.)
- Provide logistical planning alternatives/ recommendations for new/existing configurations to assist in the resolution of safety, health and ergonomics concerns and maximize facility occupancies to meet manpower space needs.

- Generate and coordinate a three-week schedule of the Space Management Daily relocations and develop project specific relocation project schedules to support the FIICP, Construction/D&D, Maintenance and manpower changes.
- Conduct a monthly space coordination meeting with Space Management personnel, Division Space Coordinators and other applicable site organizations.
- Maintain the Space Management Database to track personnel seat assignments, functional space usage, availability and the number of relocations.
- Develop/issue a monthly performance indicator chart to provide trending analysis of increases or decreases in relocations in support of remediation projects and manpower/organizational changes.
- The off-site Facility Engineer in Space Management performs Facility Owner functions: participates in off-site fire & safety inspection such as walkthroughs with internal/external agencies and reports deficiencies to applicable site personnel and/or property owners to resolve issues for all

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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.A.B	INFRASTRUCTURE SERVICES	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
ASVC5	FACILITY SUPPORT	

14. ELEMENT TASK DESCRIPTION

offsite facilities; post applicable signage to off-site facilities.

Provide carpenter support through Maintenance at the off-site locations which includes the following work activities:

- Assemble/reconfigure/ disassemble furniture
- Ladder inspections
- Construction & installation of shelving, keyboard trays and miscellaneous small office equipment
- Cutting of mats and boards for graphics
- Provide monthly space occupancy reports and Rough Order of Magnitude (ROM) estimates to support internal project/remediation schedules and relocation studies.
- Conduct relocation and consolidation studies in support of manpower changes, lease terms and remediation activities
- Attend a weekly planning/scheduling meeting for Infrastructure Services as well as weekly status meetings for active relocation project at an average of 2 per week.

Serve as the technical representative and provide administrative oversight of onsite building/trailer leases and all offsite leases which include:

- Monitoring space utilization at the leased facilities to ensure maximum occupancy ratios.
- Generating requisitions/purchase orders in accordance with contract term dates.
- Conducting lease/buy analysis on leased facilities.
- Interface with the contract leasing representatives, vendors and property owners.
- Monitor onsite/offsite leases to ensure compliance with lease terms and conditions.

- Interface with Site Closure and D & D Divisions to implement/revise the FIICP objective/content.
- The document should be reviewed/revised for applicability at a minimum of once per year, but can be revised on an as needed basis when the direction has been altered.

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.A.B	INFRASTRUCTURE SERVICES	
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12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
ASVC5	FACILITY SUPPORT	

14. ELEMENT TASK DESCRIPTION

RADILOGICAL SURVEILLANCE

- Provide Radiological monitoring/surveys at Main Access Control Points for personnel, vehicle, equipment, parts, and supplies access and egress (Trailer 19, Lab, Service Building, Trailer 50, RIMIA, and 30/45).
- Provide Radiological monitoring/surveys for RAD II Control Points, Fire & Safety, Assist Emergency Duty Officer, Security and Water Treatment personnel.
- Collect 21 air samples from Plant 6, Plant 1, Building 12, Building 30A, Building 79, Building 80, Temporary Structure (TS-4), Advanced Waste Water Treatment (AWWT), Laundry, and Respirator Wash Facility.

Provide support for various radiological assistance requests such as:

- Perform briefing and issue TLD's at RIMIA for offsite visitors and vendors
- Respond to Stack alarms at Lab and Laundry facilities
- Support EOC Emergency Response, carry emergency pager, and follow up actions for medical, fire and radiological support.
- Support visitors, engineers, technical support, vendors and DOE when project Radiological Control Technician are scheduled to be off or unavailable.

- Maintain/update stand alone access computers at AWWT, Lab DOP facility, Respirator Wash facility, Buildings 3A, 4B, 64, 68, Plant 6 SW and Plant 6 NE.

Perform and maintain restricted release accountability log for all vehicles, equipment, and materials temporarily released from the Controlled Area from anywhere on site:

- Review surveys, log sheets and documents
- Maintain monthly survey log of vehicles (night shift only)
- Prepare and review packages for Document Control
- Source custodian for numerous non-exempt rad sources
- Provide radiological coverage for back shift Garage operations (night shift only)

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
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1.1.A.B	INFRASTRUCTURE SERVICES	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
ASVC5	FACILITY SUPPORT	

14. ELEMENT TASK DESCRIPTION

d. WORK SPECIFICALLY EXCLUDED:

- FAT&LC and GBTLC craft labor to support maintenance work orders or construction projects field activities.
- Management/Supervision and execution of rigger craft.
- Procurement of highly specialized technical engineering resources or projects that require labor intensive scope outside of Facilities Multi-discipline expertise such as Architect Engineers (A/E) will be paid for by the requesting organization.
- Specialized Honeywell fire protection technical support will be paid for by Emergency Services.
- Specialized telephone system technical support will be paid for by Information Systems.
- Labor, materials or maintenance costs for projectized facilities including buildings, trailers, grounds, roads, parking lots, fences, temporary structures, vehicles and laundry services.
- Waste shipments, processing or waste removal.
- Asbestos removal
- Training not related to the activities associated to Facilities Support scope.
- General laborer support for equipment and furniture moves, landscaping, grass cutting, snow and ice removal, and general housekeeping (including porter activities).
- Maintenance and replacement of general purpose vehicles.
- Utilities does not supply backflow preventers to subcontractors, projects, or for long term use.
- The responsibilities for compressed air do not include the portable compressors unless they located at the boiler plant and connect the site compressed air system.
- Utilities is not responsible for the treatment of sewage or the distribution of propane, fuel oil, or gasoline.
- Maintenance of emergency electric generators assigned to others should be paid for by the users organization.
- Payment of the main utility bills for potable water, natural gas and

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.A.B	INFRASTRUCTURE SERVICES	
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14. ELEMENT TASK DESCRIPTION

electricity delivered to the FEMP on the DOE main contracts and penalties incurred for over/under usage of forecasted natural gas or the curtailment actions taken by CINergy or the natural gas supplier (broker); nor for the penalties for under usage of city water invoked by the Cincinnati Water Works.

- Fuel oil costs incurred as the result of a management decision to burn fuel oil instead of natural gas should the price of natural gas reach a level sufficient to justify such action (Utilities has done a study).
- No efforts will made to collect additional condensate.
- While Utilities will supply "kits" for cleaning bottled water, Utilities does not clean the bottled water stations nor supply the bottled water.
- No attempt will be made to purchase, or convert existing vehicles to be powered by natural gas.
- New furniture component purchases for reconfigurations and other site project personnel related to convenience or ergonomics which includes but is not limited to: modular walls and doors, permanent walls and doors, desks, returns, overheads, filing cabinets, bookcases, keyboard trays, chairs, computer equipment, foot rests, wrist cushion pads.
- Removal of leased equipment.
- Payment of the onsite and offsite lease invoices, utilities, and procurement of new/existing facilities.
- Radiological support for Garage for pre-maintenance work on vehicles and equipment.
- Pre-operational checks on PCMs, HFMs, and hand held instruments
- Review surveys, log sheets, and documents nor perform material release evaluations on vehicles, equipment, tools and material for Radiological Control Technicians assigned to projects/projectized facilities, when their supervision is unavailable and during off shifts.

- Operation and maintenance of AWWT and Sewage Treatment Plant.
- Computer purchases and upgrades.
- Fluor Fernald General and Administrative Budget.

SECTION 5

1.0 NARRATIVE

1. PROJECT TITLE: FACILITY AND PROJECT SUPPORT	2. DATE: 09/10/01	3. PBS#: 01
4. WBS ELEMENT CODE: 1.1.A.B.	5. WBS ELEMENT TITLE: INFRASTRUCTURE SERVICES	
6. CAM NAME/ PHONE: ROBERT HAMMACK	7. CAM SIGNATURE:	
8. ORIGINAL/ CHANGE SCOPE/ PER CP#:	9.CONTROL ACCOUNT: ASVC	

PART 2: ASVC – INFRASTRUCTURE SERVICES
Section 5: ASVC5 – Facilities Support

1.0 NARRATIVE

1.1 OVERVIEW

Facilities Support Department is comprised of six (6) site support service organizations, including: Management Support, Facilities (oversight/ownership programs), Facilities Engineering, Space Management, Utilities, and Radiological Surveillance. The labor and material costs associated with the various services to support site operations are included in this charge number as follows:

1.1.1 Management Support

This Section provides the management and administrative oversight for the Facilities Support Department and is directly responsible for management of salary and wage personnel within this department, providing administrative support to the department, management reporting, providing/procuring the applicable training, tools and equipment for department personnel, participating in various committees/portfolio assignments and ensuring compliance with applicable site requirements and safety programs.

1.1.2 Facilities Engineering

Facilities Engineering performs multi-discipline engineering services, including Civil, Electrical, Mechanical, Surveying as well as Hoisting and Rigging in support of site facility infrastructure system/components, maintenance, operating facilities and discrete projects. The deliverables from this level of effort function include discipline technical expertise and engineered technical documentation in the form of various work orders, permissives, instructions, plans, estimates, reports, drawings, sketches, designs, surveying data, and specifications.

1.1.3 Facilities

R1-D-493

Facilities provides oversight to implement a ~~F~~facility ~~M~~management ~~P~~program for projectized and non-projectized facilities including trailers, buildings, temporary structures, storage, grounds, parking lots, and plant pads. This program ensures site facilities are compliant with local, state, and federal facility regulations, as well as, site required facility

and safety requirements through the support of designated facility owners to serve as a liaison between projects and service organizations to coordinate various work activities and implement these facility requirements.

1.1.4 Utilities

Utilities provides continuous coverage for monitoring all site utility systems and is responsible for the generation/distribution of steam and compressed air and the treatment/distribution of various site waters (potable water, process water, fire protection water, cooling water, boiler feed water, brine water, raw well water). Utilities is also responsible for maintaining the lift stations, pickup points and infrastructure to gather sewage at the site to deliver to Advanced Waste Water Treatment (AWWT) facility for processing. This Section also oversees the distribution of electricity, as well as, providing main utility verifications of the natural gas, city water and electric paid for by the Department Of Energy. Due to the 24 hour/7 day work schedule, the Utility Engineers serve as the Management presence and the designated Assistant Emergency Duty Officer during emergencies for on and off-shifts.

1.1.5 Space Management

Space Management is responsible for the oversight and logistic office/functional space planning/scheduling in support of facility and personnel relocation activities for the FEMP, as well as, the performing organization to provide oversight and ensure implementation of the site Facility Infrastructure Integration and Closure Plan (FIICP). This organization is also responsible for the administration and management of the on-site and off-site facility leases.

1.1.6 Radiological Surveillance

This Section provides contamination, radiation survey and job coverage to general Access Control Points, general site Radiological Monitoring, Air Quality Sample Collection, 24-hour EOC and Emergency Response to comply with DOE Radiological Control Manual, RM-0020 and Site Environmental Safety and Health Plan for non-projectized facilities.

1.2 ASSUMPTIONS/EXCLUSIONS

1.2.1 Assumptions

R1-F01-016

- ~~Central~~ Engineering Services will provide CADD Operators and equipment for ~~Facilities~~ Facility Engineering and Space Management support

R1-F01-016

- Maintenance will provide ~~carpenter~~ labor support on a permanent basis for the offsite facilities furniture reconfigurations, small miscellaneous furniture/shelving installations/relocations and to cut mats and boards for graphics

- Maintenance will provide Maintenance craft and non-skilled labor as scheduled to support Facilities Support scope of work, specifically, Space Management, Facilities and Utilities activities

- Transportation will provide Motor Vehicle Operators (MVOs) as scheduled to support Facilities Support scope of work, specifically, Space Management and Facilities, and Utilities activities. Transportation will also provide vehicles and maintenance for field support currently assigned the ~~Surveying~~ Construction Engineer and Utility Operations [~~UE lift van,~~ UE Blazer, Water Distribution station wagon, and Oiler Cart)

R1-F01-016

- Fluor Fernald project managers will identify project personnel to be assigned as Facility Owners in projectized facilities and the Area Facility Owners will be assigned as Facility owners in non-projectized and/or abandoned facilities

R1-D-493

- The site will maintain a ~~F~~facility ~~M~~management ~~P~~program and Radiological Surveillance Program on a graded approach as site/facility requirements and number of facilities change

- Utilities and Radiological Surveillance Programs will provide continuous 24 hours/7 days a week coverage to meet the site program requirements and continuous operational/projects needs. ~~Utilities will work a three, twelve-hour (3/12s) rotating on/off shifts and the Radiological personnel will work a four, twelve-hour (4/12s) rotating on/off shifts~~

R1-F01-016

R1-F01-016

- The subcontracts for the portable restrooms (Port-a-lets) ~~and ice machines~~ will ~~remain~~ be administered and funded under the Facilities Management ~~Program~~ Section

- Stationary Engineers will continue to monitor and operate the brine tanks, compressors, emergency generator, and fuel oil storage at the Boiler Plant in support of the AWWT in addition to preparing the Boiler Plant for D&D beyond the isolation of steam to the Administration Complex

R1-F01-016

- ~~Utilities assumes that quarterly~~ Quarterly reports for pollution and energy usage will continue such as those requested by In-House Energy Management and OEPA

- The existing FATLC Contract changes in February 2003; any changes in the contract after February 2003 may cause this baseline study to be adjusted

- Implementation of Space Management administration is based on the activities associated with the Facility Infrastructure Integration and Closure Plan (FIICP), D&D Remediation Schedule and Execution Schedule 6 Scenario for Baseline and Manpower forecasting as well as sitewide organizational changes

R1-F01-016

- Space Management manpower will remain ~~at 6 FTEs~~unchanged given the average monthly relocations/reconfigurations are not less than 40 and not greater than 100. If the references in Section 1.3.1 of this document are accelerated or delayed Space Management manpower will need to be adjusted

- Relocation planning/scheduling and Utility isolation support will be executed six months prior to the start of the D&D schedule start date for all facilities identified on the Execution 6 schedule, except, for areas with large population centers of personnel. Relocation planning and scheduling will be conducted one year from the D&D start date for the Administration Area Complex, Multi Complex and Lab/Pilot Plant Complex

R1-F01-016

- Given the implementation of the FIICP objectives, Execution 6 schedule, lease consolidation and manpower/organization changes, Space Management will maintain/reuse/reduce existing furniture stock consistent with site objectives

R1-D-035

- Manpower calculations are based on the following four possible sources: Historical Data (HD), Industry Standard (IS), Composite of HD & IS (Comp), and Professional Judgement (PJ). See Calculation Table ~~in~~ following Section ~~V~~ 1.4.4 for calculations by work scope activity/sub activity

R1-F01-002

- Other Direct Costs (ODCs) are based on FY00 actual cost of work performed and budgeted manpower (FTEs). ~~, as follows: ODC$s/FTEs. Minimum of $100/FTE will be used if FY00 calculations are < $100/FTE.~~ See Section 1.4.3 for quotient, by work scope function

R1-D-048

- ~~Premium~~ Overtime is based on FY00 actual cost of work performed overtime hours (OT) and regular (Reg) hours, as follows: OT/Reg. See Section 1.4.2 for quotient, by work scope function

- Material rates are broken down into two parts: 1-General Materials and 2-Additional Materials. General Materials are based on data supplied by Estimating Services. Additional Materials are based on FY00 ACWP data. See section 1.4 for materials rates.

- Subcontractor dollars are based on existing subcontracts at time of this baseline and anticipated new subcontracts not currently in place

R1-F01-001

- Dollar amounts are unescalated
- All calculations for manpower, subcontracts, materials, and ODCs are based on a 12-month year for 2002, 2003, 2004, 2005, 2006, 2007, 2008, and 2009
- All overtime is planned overtime

- Assume that all work activities are based on a 40-hour workweek
- The basis of this estimate assumes the use of Remediation Schedule, and Execution 6 Scenario
- Sales Tax @ 6% for all taxable items
- Estimate is expressed in FY01 dollars
- Estimate represents budget for the length of this charge number

1.2.2 Exclusions

- Salary Labor and materials not included in this Plan/Scope section
- FAT&LC and GBTLC craft labor to support maintenance work orders or construction projects field activities
- Management/Supervision and execution of rigger craft
- Procurement of highly specialized technical engineering resources or projects that require labor intensive scope outside of Facilities Multi-discipline expertise such as Architect Engineers (A/E) will be paid for by the requesting organization
- Specialized Honeywell fire protection technical support will be paid for by Emergency Services
- Specialized telephone system technical support will be paid for by Information Systems
- Labor, materials or maintenance costs for projectized facilities including buildings, trailers, grounds, roads, parking lots, fences, temporary structures, vehicles and laundry services
- Waste shipments, processing or waste removal, any waste activity
- Asbestos removal
- Training not related to the activities associated to Facilities Support scope
- General laborer support for equipment and furniture moves, landscaping, grass cutting, snow and ice removal, and general housekeeping (including porter activities)
- ~~Vehicle maintenance~~Maintenance and replacement of general purpose vehicles

R1-F01-017

- Utilities does not supply backflow preventers to subcontractors, projects, or for long term use

- The responsibilities for compressed air do not include the portable compressors unless they located at the boiler plant and connect the site compressed air system

- Utilities is not responsible for the treatment of sewage or the distribution of propane, fuel oil, or gasoline

- Maintenance of emergency electric generators assigned to others should be paid for by the users organization

- Payment of the main utility bills for potable water, natural gas and electricity delivered to the FEMP on the DOE main contracts and penalties incurred for over/under usage of forecasted natural gas or the curtailment actions taken by CINergy or the natural gas supplier (broker); nor for the penalties for under usage of city water invoked by the Cincinnati Water Works
- Fuel oil costs incurred as the result of a management decision to burn fuel oil instead of natural gas should the price of natural gas reach a level sufficient to justify such action (Utilities has done a study) ~~are not the responsibility of Utilities for return to the Boiler Plant~~

~~R1-F01-017~~

- No efforts will made to collect additional condensate

- While Utilities will supply "kits" for cleaning bottled water, Utilities does not clean the bottled water stations nor supply the bottled water

- No attempt will be made to purchase, or convert existing vehicles to be powered by natural gas

- New furniture component purchases for reconfigurations and other site project personnel related to convenience or ergonomics which includes but is not limited to: modular walls and doors, permanent walls and doors, desks, returns, overheads, filing cabinets, bookcases, keyboard trays, chairs, computer equipment, foot rests, wrist cushion pads

R1-F01-017

- ~~Removal of leased equipment~~

- Payment of the onsite and offsite lease invoices, utilities, and procurement of new/existing facilities

- Radiological support for Garage for pre-maintenance work on vehicles and equipment

- Pre-operational checks on 27 PCMs, 26 HFMs, and 36 hand held instruments

- Friday (for areas that work 4/10 schedule), Saturday, Sunday – perform daily surveys on break rooms, sitewide

- Review surveys, log sheets, and documents nor perform material release evaluations on vehicles, equipment, tools and material for Radiological Control Technicians assigned to projects/projectized facilities, when their supervision is unavailable and during off shifts

- Applicable Total Time charge to other charge numbers for one week (24 hours/7 days a week):

  - Day Shift RCTs 16 hours
  - Day Shift LRCTs 34 hours
  - Night Shift RCTs 48 hours
  - Night Shift LRCTs 40 hours

R1-F01-017

- Operation & Maintenance of AWWT & Sewage Treatment Plant

R1-F01-001

- Computer purchases and upgrades
- Does not include Fluor Fernald General Administrative Cost

1.2.3 Government-Furnished Equipment/Services

R1-F01-018

~~None~~Main Gas & Electric ~~feeds to site~~power accounts

1.3 DRIVERS

R1-F01-018r

1.3.1 Physical

- Facility Support in support of Execution 6 – Facility and Project Support projects:

  - Temporary Trailer Complex (18 doublewides) ~6/03
  - Refacilitization of RIMIA, T33, Northstar ~3/01
  - T-76 10 Plex ~6/03
  - T-84 Relocation ~1/04
  - Boiler Plant renovation (93A) ~3/03
  - Medical Complex Refacilitization 6 Plex ~6/03

- Facility Support in support of Execution 6 operations/evolutions:

-	OUI D&D Complex Z11BBC	~ 12/03
-	211BBQC1 Plt. 1 Phase II	~ 10/04
-	211BBWC1 New Elec. Sub. Sta.	~ 7/04
-	211BCF5 OU3 Office Trailer	~ 5/05
-	211BCIC Bldg. 64/65	~ 6/03
-	211BBEC Multicomplex D&D Mgmt.	~ N/A
-	211BBDG Lab/Pilot Plant D&D Mgmt	~ N/A
-	211BCGG Covered Storage Pad	~ 5/04
-	211BBLC Plt. 2 D&D	~ 10/02
-	211BBNC Plt. 8 D&D	~ 3/04
-	211BCFC Plt. 3 D&D	~ 6/04
-	211BBUC Gen. Sump D&D	~ 10/03
-	211BBSC Liquid Storage Tank	~ 10/04
-	211BBRC Pilot Plant D&D	~ 1/03
-	211BBVC Chem Lab	~ 10/03
-	212D134 Spit Operations D&D	~ 3/07
-	212D135 Dissolved Oxy D&D	~ 6/08
-	212D136 Met Tower D&D	~ 6/08
-	2121JAQ ARASA D&D	~ 2/04
-	212EMX Prod Area Title III	~ 5/04
-	212EMV1 Area 3A Utility Isolation	~ 11/02
-	212EML LSP Title I & II Design	~ 9/03
-	212EXR Area 3B/4B/5 Design	~ 9/03
-	212EXF Area 2, Phase II Design	~ 4/04

- Facility Support in support of Miscellaneous technical service requirements, projects, operations, facilities and infrastructure systems:
  - Re-facilitization of site telephone service building ~ 02
  - Honeywell communications reconfigurations
  - Telephone service reconfigurations
  - AWWT/Aquifer operations
  - Maintenance operations
  - Utilities operations
  - Silos projects/operations
  - WPRAP operations
  - WGS operations
  - OSDF operations
  - IR Support (Rigging portfolio) ~ 01

- The Utility Infrastructure at the FEMP site is operational 24 hours/7 days a week along with the Aquifer Restoration Project/Waste Water Treatment (AWRT), these continuous operations require Utilities to provide 24 hours/7 days a week coverage

- Due to the 24 hours/7 days a week work schedule and presence on site, a management directive exists for the Utility Engineer to serve as the Assistant Emergency Duty Officer (AEDO) and respond to various project emergency response plans and the Emergency Response functional area requirements

- Radiological Surveillance Program requires continuous 24 hours/7 days a week coverage to meet the sites operational and project needs for radiological monitoring

- Facility Infrastructure Integration and Closure Plan (FIICP)

- Dismantlement and Decommissioning (D & D) Remediation Schedule

- Soil Excavation Schedule

- Management Directives and Standing Orders, Manpower Plans and adjustments, Site Re-organization which drive personnel movement

1.3.2 Administrative

- Department of Energy/Fluor Prime Contact, DE-AC24-010H20115, Section H.7 for Self Performance

- DOE Order 440.1A, 18-22 Worker Protection Management for DOE Federal and Contractor Employees

- DOE Order 430.1A, Life Cycle Asset Management

- DOE Order 420.1, Facility Safety

- DOE Order 4330.4B, Maintenance Management Program

- DOE 4300.1C, Real Property Management

- DOE Order 5480.19, Conduct of Operations Requirements for Department of Energy Facilities

- DOE Radiological Control Manual

- Department of Commerce (DOC), Section 4101: Section 4-17

- Department of Commerce (DOC), Section 4102, Board of Building Standards for Determining Engineering Specifications

- Environmental Protection Agency, EPA 3745-95, Backflow Prevention and Cross Connection Control

- State of Ohio Administrative Code (SOAC), Repair and Inspection of Unfired Pressure Vessels

- Greater Cincinnati Building and Construction Trades Council (GCBCT) – Training section for Rigging

- Fernald Atomic Trades and Labor Council Collective Bargaining Agreement, dated 3/1/98

- Environmental Protection Agency, EPA 3745-07, Water Supply Works and Wastewater Works Personnel Certification, part –01 through 01

- Maintain agreements with the Department of Energy (DOE) to independently verify and prepare monthly reports of site gas usage and forecasting, primary electric, natural gas, and city water paid for by the Department of Energy.

- GSA Space Requirements for the Department of Energy and Inspector General personnel

- RM-0016, Management Plan, Standard/Requirements Identification Documents, specifically CH-2028, Section 1.5.4; Section 2.3.16

- Acquisition Practice Regulation E7-1, Acquisition of Lease Real Property

1.4 Scope of Work

1.4.1 Management Support

1.4.1)1 Plan/Scope

- Clerical/administrative support for the department

  - Maintain scheduling (i.e. manager's daily schedule, meetings and conference room scheduling, personnel training scheduling, travel coordination)

  - Section personnel support (i.e. mail distribution, paycheck distribution, cardex/phone directory updates, timesheet processing, copying, faxing, typing,)

  - Space coordination

- Document management (i.e. meeting minutes/notes, typing, presentation preparation, report for weekly and monthly activities)
- Management of Manager's email
- Commitment tracking and Lesson Learned tracking
- Database management
- Maintain office supplies, stores, and credit card purchasing
- Records Custodian and document control
- Management of Safety Workgroup walk-through documentation; section Safety Representative

- Provide budget for the procurement of required training, certifications, and licensing to support Facility Support department scope (includes fees and incidental travel expenses), as well as, tools, equipment, facilities, hardware, software and supplies
- Assist/Participate in site document review processes and Subject Expert (SE) for site procedure SH-0018 which includes conducting annual reviews and ensuring the procedures are revised as applicable
- Personnel Administration/management (14 salary direct report FTEs)
- Chair Sitewide Electrical Safety Committee at a minimum of once per quarter
- Task Team/Portfolio assignments
- Baseline and budget planning/oversight
- Management reviews/reports including weekly/monthly activity reports
- Participate and ensure department personnel are pro-active in safety initiatives and programs, workgroup activities, reports and walk-throughs
- Conduct and attend Management meetings
- Provide budget for Labor costs associated with support from Project Control, Quality Control, Radiation Safety, Industrial Hygiene, and Industrial Safety functions.

R1-D-048

1.4.1)2 Quantification/~~Premium~~ Overtime

R1-D-048

Refer to Quantification Table

R1-D-048

~~Premium~~ Overtime
~~Old Charge # 7FOP4 .0000~~
~~Old Charge # 6GAAU .0000~~
~~Old Charge # 6EAAJ .0047~~
~~Old Charge # 7RTS1 .0000~~
~~Old Charge # 7GCA1 .2249~~
~~Average = .0459~~ No Planned overtime

1.4.1)3 ODCs

Based on actuals of charge #'s 7FOP3, 7FOP4, 6GAAU, 6EAAJ, 7GCA1, 7RTS1,

ODC 600 - None
ODC 700 - $229/FTE
ODC Travel - $103/FTE

1.4.1)4 Subcontracts/ Materials

Subcontracts: NONE

Materials:

General Material $594/FTE

Additional Materials:

Materials/FTE NONE
Materials/Year NONE

1.4.2 Facilities Engineering

1.4.2)1 Plan/Scope

- Facilities Engineering provides Civil, Structural, Electrical, and Mechanical services in response to an average of 75 active Requests for Engineering Services (RES) per month to perform the following:
  - Design and perform functional engineering tests
  - System troubleshooting and consultation

- Provide subject matter functional expertise on infrastructure equipment and systems
- Provide technical expertise and representation on special Task Teams/special committees (i.e. Sitewide Electrical Committee)
- Create technical instructions and plans
- Generate engineering design ROM Cost Estimates
- Perform Conceptual Feasibility Studies
- Conduct facility condition assessments
- Perform Title I, II, and III engineering services
- Perform technical reviews, analysis, and evaluations of site documents
- Generate Engineering standards and provide subject matter expertise in interpreting codes and standards
- Miscellaneous Non-RES activity (i.e. small scale, short-term consultations, reviews, walk-downs, field inspections, etc.)
- Generate design packages
- Provide CADD production services in direct support Facility Engineering and Space Management scopes

• Hoisting and Rigging Engineering provides technical oversight to the site rigging, tool crib, and fall protection programs which includes the following:

- Design lift plans, provide approval authority for all site rigging/lift plans, and provide direct oversight of all critical lifts
- Provide Subject Matter Expertise for site Hoisting and Rigging Manual (RM-0045), Site rigging procedures (MT-0005 and SH-0023) and technical interface with Fluor Corporate Rigging Program
- Inspect and approve all vendor/contractor mobile crane prior to use on site
- Approve procurement of rigging equipment
- Provide rigging training/instruction for all new contractors and Fluor Fernald construction personnel

- Provide support to Industrial Relations (IR) as a liaison with the Greater Cincinnati Building and Trades Labor Council which includes:
  - Addressing grievances(3-step grievance process)
  - Conduct pre-job kick-off meetings, Quarterly Meetings and Monthly Safety Meetings with GCBTLC and contractors
  - Oversight to ensure compliance with the Building Trades Project Labor Agreement (PLA)
  - Interface with Business Agents, Operations and Construction Projects
  - Conduct annual review of the Craft pay rate for compliance with industry standards
- Surveying Engineering services include the following:
  - Penetration permitting coordination services to all projects outside the former production controlled areas
  - Provide general surveying and construction service sitewide
  - Furnish field survey data in support of as-built drawing generation
  - Provide field location data on site underground infrastructure systems
  - Provide field confirmation/correction for facilities location mapping

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1.4.2)2 Quantification/~~Premium~~ Overtime

Refer to Quantification Table

R1-D-048

~~Premium~~ Overtime
~~Old Charge # 6GAAU .0000~~
~~Old Charge # 7RTS1 .0000~~
~~Average = .0000 x regular hours~~ Overtime at 1.5x Engineers 15.15% and overtime at 2x Engineers 4.24%

1.4.2)3 ODCs

Based on actuals of charge #'s 7FOP3, 7FOP4, 6GAAU, 6EAAJ, 7GCA1, 7RTS1,

ODC 600 - None
ODC 700 - $229/FTE
ODC Travel - $103/FTE

1.4.2)4 Subcontracts/Materials

Subcontracts
(X $1,000S)

01	02	03	04	05	06	07			
PARSONS			$46K						
HERMANN			$.5k	$.5k	$.5k	$.5k	$.5k	$.5k	$.5k
INGERSOL-RAND			$ 5K	$ 5K	$ 5K	$ 5K	$ 5K	$ 5K	$ 5K
STATE OF OHIO			$.5k	$.5k	$.5k	$.5k	$.5k	$.5k	$.5k
STOERMER EQUIP			$10K	$10K	$10K	$10K			
HERCULIES/BETZ/ DEERBORN			$20k	$20k	$20k	$20k	$20k	$20k	$20k
RUMPKE				$2K	$2K	$2K	$2K		

Materials:

General Material $594/FTE

Additional Materials:

Materials/FTE NONE
Materials/Year NONE

1.4.3 Facilities

1.4.3)1 Plan/Scope

- Facilities is responsible for the designation of the Area Facility Owners and works with project organization to appoint a facility owner as a projectized facility point of contact

- Ensure that the Area Facility Owners (AFO) and the Facility Owners (FO) are compliant with TQP and issue applicable required reading to AFO/FO for new/revised requirements

- Determine and initiate frequency of facility condition assessment and evaluations

- Interface, communicate, and inform DOE facility counterpart of issues of concern for assigned facilities on a weekly basis

- Establish and maintain facility owner list and database. This database includes phone and pager numbers of owners and alternates, facility location, and history. Track and transfer facility ownership of 500+ facilities

- Post signage to facilities with updated information of facility owner, alternate Facility owner, emergency contact, and property management phone numbers

- Conducts periodic facility inspections and housekeeping tours to include the following activities:

  - Inspects 31 grids per month to ensure the surrounding grounds (1100 acres) are maintained.

  - Conduct inspections of 537 facilities per month to ensure active projectized/non-projectized facilities and their tenants/operations are in compliance with facility requirements as well as act as a liaison with applicable project/support organizations to ID property, miscellaneous material, and records for proper disposition or to implement repairs.

- Subject Experts for site procedure OP-1024 and OP-1025 to provide interpretation, conduct an annual review for program changes, and revise as applicable.

- Oversee the subcontracts for portable restroom facilities and ice machines (see Quantification Table)

- Facilities assists Maintenance work activities through:

  - Review/approval of approximately 20 Maintenance work orders and 30 work requests weekly to ensure Facility Maintenance repairs follow the graded approach

  - Serves as a point of contact to resolve tenant's safety concerns and issues, create work orders (WO) when needed, and provide feedback on work order status

  - Conduct pre-job walk downs to verify completeness of Maintenance work order packages and to notify team members effected by work activities (i.e. outages, repairs)

  - Coordinate field activities related to removal of leased trailers

  - Coordinate field activities related to outages and service interruptions

  - Participate and oversee facility closure activities prior to acceptance/turnover to the D & D contractor including facility inspections, identify abandoned records for disposition, initiate excessing of salvageable equipment and removal of miscellaneous materials from the facility

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1.4.3)2 Quantification/~~Premium~~ Overtime

Refer to Quantification Table

R1-D-048

~~Premium~~ Overtime
~~Old Charge # 7FOP3.2150~~
~~(Rad Tech Coverage at T-19)~~

~~Old Charge # 7FOP4.0000~~
~~Use .2150 x regular rad tech hours~~Overtime at 1.5x Rad Tech 9.52%, overtime at 2x Rad Tech 2.56%

1.4.3)3 ODCs

Based on actuals of charge #'s 7FOP3, 7FOP4

ODC 600 - None
ODC 700 - $229/FTE
ODC Travel - $103/FTE

1.4.3)4 Subcontracts/Materials

Subcontracts: NONE

Materials:

General Material $594/FTE
Additional Material

Materials/FTE NONE
Materials/Year NONE

1.4.4 Utilities

1.4.4)1 Plan/Scope

- Provide continuous 24 hours/7 days coverage to monitor the site utility systems including performing the following activities:

  - Collection of various utility system meter readings
  - Test Emergency Power Generators

  - Provide fuel consumption data quarterly for state permitting reports

- Treat water used at the cooling tower and cooling water system and boiler feed water systems
- Provide expertise on water systems, and back-flow preventers
- Monitor the FEMP fire pumps and hydrants
- Monitor, maintain, and operate #1 and #2 raw water (Old Production Wells) to supply raw well water for dust suppression. Water is supplied via piping system to three (3) truck filling stations and two (2) wheel-washing stations
- Monitor and operate the four (4) boilers located at the Boiler Plant and associated equipment used to generate steam, including treating the makeup water
- Monitor and operate the three (3) air compressors located at the Boiler Plant and associated Equipment used to generate compressed air
- Monitor and operate the distribution of site steam system and two (2) Steam Chillers in the Lab Building
- Monitor the condensate collection system
- Monitor and control emergency generators and heaters for site use
- Provide brine solution to AWWT operations and Oiler Services to the site
- Provide Oiler Services to the site
- Perform chemical accountability
- Perform the duties of the Assistant Emergency Duty Officer (AEDO) for the FEMP when on duty, including providing off-shift, on-site Management presence and an on-site alternate facility owner for responding/reporting emergencies. Also perform the duties of the Emergency Duty Officer (EDO) when scheduled

• Utilities general administrative work activities include:

- Manage, administer and supervise all wage and salary personnel assigned to Utilities
- Develop general plans including departmental procedures and policies for managing daily/long-term Utilities operations, re-routing utility services, providing backup or alternate utility services, isolating of utility services for facilities being environmentally remediated

- Develop departmental Energy Isolation Plans (EIPs) and assist other team members with the development of their program/project Energy Isolation Plans or Specific Equipment Plans (SEPs)

- Walkdown, review drawings and verify steps to be taken for penetration permits to minimize the negative impact to site utilities

- Support training associated with General Site Work Qualification and specific training as spelled out in the Utilities Training and Qualification Programs #025 (Utilities Engineer), #040 (Water Treatment), and #043 (Boiler Plant), as well as, retain the necessary state/licenses/certifications

- Serve as the liaison between the main utility suppliers (Cinergy and Cincinnati Water Works) and Fluor Fernald

- Coordinate the annual state inspections of all site boilers

- Collect data concerning energy consumption by the FEMP and satellite facilities

- Provide forecasts of energy use and costs on an bi-annual and monthly basis as well as various reports and charts tracking energy use for DOE and Fluor Management

- Verify the natural gas/electric and water usage as noted by CINergy and Cincinnati Water Works to assist DOE in verifying utility bills to be paid

- Coordinate utility outages with Maintenance, Construction, and others
- Investigate and resolve problems and concerns within Utilities and related areas

- Maintain records of operation including, but not limited to: water used, chemicals used, and tower levels, fuel oil usage, natural gas usage, steam generated

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1.4.4)2 Quantification/~~Premium~~ Overtime

Refer to Quantification Table

The continuous coverage of twenty-four hour, seven days a week by four Utilities Engineers, four Water Distribution Operators and four pairs of Stationary Engineers results in routine weekly premium time. In addition to the premium time generated from working holidays and week ends, premium time for work over forty hours in a week is generated whenever a scheduled employee is off due to sickness, vacation, jury duty, funeral leave,

or other reasons. Additional premium time is also generated when these employees attend training, medical checkups, and required meetings.

R1-D-048

~~Premium~~ Overtime
~~Old Charge # 7GCA1 .2249~~
~~Old Charge # 7GCA2 .2281~~
~~Old Charge # 7GCA4 .2301~~
~~Average = .2277 x Regular Hours~~ Overtime at 1.5x Stationary Engineers 20.28%, Water Plant Operators 16.69% and overtime at 2x Stationary Engineers 5.98%, Water Plant Operators 4.81%

1.4.4)3 ODCs

Based on actuals of charge #'s 7GCA1, 7GCA2, 7GCA4

ODC 600 - None
ODC 700 - $229/FTE
ODC Travel - $103/FTE

1.4.4)4 Subcontracts/Materials

Subcontracts:NONE

Materials:

General Materials $594/FTE

Additional Material

Materials/FTE NONE
Materials/Year $55,000 (Electric Bill, Fuel Oil, etc.)

1.4.5 Space Management

1.4.5)1 Plan/Scope

- Provide technical and administrative planning/scheduling in support of relocations and reconfigurations for Fluor, DOE, IG, and subcontractors and functional/operational (i.e. conference rooms, labs, storage, etc.) space including personnel, furniture, records, personal affects, equipment and data/voice telecommunications (computer/phone) which includes the following work activities:

  - Interface with CADD to design office and functional space layouts, also with applicable site and Engineering organizations to develop/revise/obtain approvals for interior floor plans and update facility drawings

- Provide technical support to Internal/External Project Organization originators to submit work orders and tickets for office and building layout configurations, assembling/disassembly of furniture, disconnect/ connect telephones, update FEMP Phone Book, move boxes and computers.

- Authorized to release stored furniture for reconfiguration layouts and excess damaged or unusable furniture to excess property

- Procure miscellaneous small furniture parts to support the reuse of existing major furniture components inventory (i.e., modular walls, desks, overheads, etc.)

- Provide logistical planning alternatives/ recommendations for new/existing configurations to assist in the resolution of safety, health and ergonomics concerns and maximize facility occupancies to meet manpower space needs

- Generate and coordinate a three-week schedule of the Space Management Daily relocations and develop project specific relocation project schedules to support the FIICP, Construction/D&D, Maintenance and manpower changes

  - Adjust and modify schedule for work variances once per week

- Conduct a monthly space coordination meeting with Space Management personnel, Division Space Coordinators and other applicable site organizations

- Maintain the Space Management Database to track personnel seat assignments, functional space usage, availability and the number of relocations

- Develop/issue a monthly performance indicator chart to provide trending analysis of increases or decreases in relocations in support of remediation projects and manpower/organizational changes
- The off-site Facility Engineer in Space Management performs Facility Owner functions: participates in off-site fire & safety inspection such as walkthroughs with internal/external agencies and reports deficiencies to applicable site personnel and/or property owners to resolve issues for all offsite facilities; post applicable signage to off-site facilities

- Provide carpenter support through Maintenance at the offsite locations which includes the following work activities:

  - Assemble/reconfigure/ disassemble furniture

  - Ladder inspections

- Construction and installation of shelving, keyboard trays and miscellaneous small office equipment

- Cutting of mats and boards for graphics

- Provide monthly space occupancy reports and Rough Order of Magnitude (ROM) estimates to support internal project/remediation schedules and relocation studies

- Conduct relocation and consolidation studies in support of manpower changes, lease terms and remediation activities

- Attend a weekly planning/scheduling meeting for Infrastructure Services as well as weekly status meetings for active relocation project at an average of 2 per week

- Serve as the technical representative and provide administrative oversight of onsite building/trailer leases and all offsite leases which include:

  - Monitoring space utilization at the leased facilities to ensure maximum occupancy ratios

  - Generating requisitions/purchase orders in accordance with contract term dates

  - Conducting lease/buy analysis on leased facilities

  - Interface with the contract leasing representatives, vendors and property owners

  - Monitor onsite/offsite leases to ensure compliance with lease terms and conditions

- Interface with Site Closure and D & D Divisions to implement/revise the FIICP objective/content

- The document should be reviewed/revised for applicability at a minimum of once per year, but can be revised on an as needed basis when the direction has been altered

R1-D-048

1.4.5)2 Quantification/~~Premium~~ Overtime

Refer to Quantification Table

R1-D-048

~~Premium~~ Overtime
~~Old Charge # 6EAAJ 0000 x regular hours~~

1.4.5)3 ODCs

Based on actuals of charge # 6EAAJ

ODC 600 - None
ODC 700 - $229/FTE
ODC Travel - $103/FTE

1.4.5)4 Subcontracts/Materials

Subcontracts: NONE

Materials:

General Material $594/FTE

Additional Material

Materials/FTE NONE
Materials/Year NONE

1.4.6 Radiological Surveillance

1.4.6)1 Plan/Scope

- Provide Radiological monitoring/surveys at Main Access Control Points for personnel, vehicle, equipment, parts, and supplies access and egress (Trailer 19, Lab, Service Building, Trailer 50, RIMIA, and 30/45)
- Provide Radiological monitoring/surveys for *RAD II Control Points*, Fire & Safety, Assist Emergency Duty Officer, Security and Water Treatment personnel
- Carry duty – cellular phone/radio (X648-4987/#355) as primary contact for Radiological Controls for the site
- Collect 21 air samples from Plant 6, Plant 1, Building 12, Building 30A, Building 79, Building 80, Temporary Structure (TS-4), Advanced Waste Water Treatment (AWWT), Laundry, and Respirator Wash Facility
- Provide support for various radiological assistance requests such as:
  - Perform briefing and issue TLD's at RIMIA for offsite visitors and vendors
  - Respond to Stack alarms at Lab and Laundry facilities

- Support EOC Emergency Response, carry emergency pager, and follow up actions for medical, fire and radiological support

- Support visitors, engineers, technical support, vendors and DOE when project Radiological Control Technician are scheduled to be off or unavailable

- Maintain/update stand alone access computers at AWWT, Lab DOP facility, Respirator Wash facility, Buildings 3A, 4b, 64, 68, Plant 6 SW and Plant 6 NE

- Perform and maintain restricted release accountability log for all vehicles, equipment, and materials temporarily released from the Controlled Area from anywhere on site:

  - Review surveys, log sheets and documents

  - Maintain monthly survey log of vehicles (night shift only)

- Prepare and review packages for Document Control

- Source custodian for numerous non-exempt rad sources

- Provide radiological coverage for back shift Garage operations (night shift only)

R1-D-048

1.4.6)2 Quantification/~~Premium~~ Overtime

Refer to Quantification Table

- (2) four-man, twelve hour (4/12's) rotating crews:

  Day Shift: 0600 – 1830, Monday – Friday, Charge to ASVC5 (special shift)
  Night Shift: 1830 – 0600, Monday – Friday (special shift)
  Off Shift: 0100 – 2400, Saturday, Sunday and Holidays (special shift, double time and overtime pay)

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~~Premium~~ Overtime
~~Old Charge # 7FOP3 .2150 (Rad Tech Coverage at T-19)~~

1.4.6)3 ODCs

Based on actuals of charge #'s 7FOP3

ODC 600 - None
ODC 700 - $229/FTE
ODC Travel - $103/FTE

1.4.6)4 Subcontracts/Materials

Subcontracts: NONE

Materials:

General Material $594/FTE

Additional Material

Materials/FTE NONE
Materials/Year NONE

Facilities Support Quantification Table Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)			
Activity	**Sub-Activity**	**Calc Type**	**Calculations**
1.4.1)2 Management Support			
Clerical/administrative support for the department	Maintain scheduling (i.e. manager's daily schedule, meetings and conference room scheduling, personnel training scheduling, travel coordination)	HD	.1 CLERK
	Section personnel support (i.e. mail distribution, paycheck distribution, Cardex/phone directory updates, timesheet processing, copying, faxing, typing and Space Coordination)	HD	.1 CLERK
	Document management (i.e. meeting minutes/notes, typing, presentation preparation, report for weekly and monthly activities)	HD	.2 CLERK
	Management of Manager's email	HD	.1 CLERK
	Commitment tracking and Lessons Learned tracking	HD	.1 CLERK
	Database management	HD	.1 CLERK
	Maintain office supplies, stores, and credit card purchasing	HD	.1 CLERK
	Records Custodian and document control		.1 CLERK
	Management of Safety Workgroup walk-through documentation; section Safety Representative		.1 CLERK
Assist/Participate in site document review processes and Subject Expert (SE) for site procedure SH-0018 which includes conducting annual reviews and ensuring the procedures are revised as applicable		HD & PJ	.1 PRJMGR
Personnel Administration/management (14 direct reports)		HD & PJ	.1 PRJMGR
Chair Sitewide Electrical Safety Committee at a minimum of once per quarter		HD & PJ	.1 PRJMGR
Task Team/Portfolio assignments		HD & PJ	.1 PRJMGR
Baseline and budget planning/oversight		HD & PJ	.1 PRJMGR
Participate and ensure department personnel are pro-active in safety initiatives and programs, workgroup activities, reports and walk-throughs		HD & PJ	.1 PRJMGR
Management reviews/reports including weekly/monthly activity		HD & PJ	.1 PRJMGR
Conduct and attend Management meetings		HD & PJ	.1 PRJMGR

Facilities Support Quantification Table Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)			
Activity	**Sub-Activity**	**Calc Type**	**Calculations**
1.4.1)2 Management Support (Continued			
Provide budget for the procurement of required training, certifications, and licensing to support Facility Support department scope (includes fees and incidental travel expenses), as well as, tools, equipment, facilities, hardware, software and supplies.		HD & PJ	.1 PRJMGR
Provide budget for support from Project Control, Quality Control, Radiation Safety, Industrial Hygiene, and Industrial Safety functions		HD & PJ	.1 PRJMGR
1.4.2)2 Facility Engineering			
Facility Engineering provides civil, structural, electrical, and mechanical services in response to an average of 75 active Requests for Engineering Services (RES) per month to perform the following:	Design and perform functional engineering tests	HD	.2 FACENG
	Discipline consultation	HD	.6 FACENG
	System troubleshooting and analytical services	HD	.6 FACENG
	Provide subject matter functional expertise on infrastructure equipment and systems	HD	.4 FACENG
	Provide technical expertise and representation on special Task Teams/special committees	HD	.1 FACENG
	Create technical instructions and plans	HD	.4 FACENG
	Generate engineering design ROM Cost Estimates	HD	.2 FACENG
	Perform Conceptual Feasibility Studies	HD	.2 FACENG
	Conduct facility condition assessments	HD	.5 FACENG
	Perform Title I, II, and III engineering services	HD	.6 FACENG
	Perform technical reviews, analysis, and evaluations of site documents	HD	.5 FACENG
	Generate Engineering standards and provide subject matter expertise in interpreting codes and standards Miscellaneous Non-RES activity (i.e. small scale, short-term consultations, reviews, walk-downs, field inspections, etc.)	HD	.1 FACENG
	Generate design packages	HD	1.4 FACENG
	Provide CADD production services in direct support Facility Engineering and Space Management scopes	HD	3.0 FACENG

Facilities Support Quantification Table Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)			
Activity	**Sub-Activity**	**Calc Type**	**Calculations**
1.4.2)2 Facility Engineering (Continued)			
Hoisting and Rigging Engineering provides technical oversight to the site rigging, tool crib, and fall protection programs which includes the following:	Design lift plans, provide approval authority for all site rigging/lift plans, and provide direct oversight of all critical lifts	HD & PJ	.1 FACENG
	Provide Subject Matter Expertise for site Hoisting and Rigging Manual (RM-0045), Site rigging procedures (MT-0005 and SH-0023) and technical interface with Fluor Corporate Rigging Program	HD & PJ	.1 FACENG
	Inspect and approve all vendor/contractor mobile crane prior to use on site	HD & PJ	.1 FACENG
	Approve procurement of rigging equipment	HD & PJ	.1 FACENG
	Provide rigging training/instruction for all new contractors and Fluor Fernald construction personnel	HD & PJ	.1 FACENG
Provide support to Industrial Relations (IR) as a liaison with the Greater Cincinnati Building and Trades Labor Council which includes:	Addressing grievances (3-step process)	HD & PJ	.1 FACENG
	Conduct pre-job kick-off meetings, Quarterly Meetings and Monthly Safety Meetings with GCBTLC and contractors	HD & PJ	.1 FACENG
	Oversight to ensure compliance with the Building Trades **Project Labor Agreement (PLA)**	HD & PJ	.1 FACENG
	Interface with Business Agents, Operations and Construction Projects	HD & PJ	.1 FACENG
	Conduct annual review of the Craft pay rate for compliance with industry standards	HD & PJ	.1 FACENG
Surveying Engineering services include the following:	Penetration permitting coordination services to all projects outside the former production controlled area	HD & PJ	.3 FACENG
	Furnish field survey data in support of as-built drawing generation	HD & PJ	.2 FACENG
	Provide field location data on site underground infrastructure systems	HD & PJ	.2 FACENG
	Provide field confirmation/correction for facilities location mapping	HD & PJ	.2 FACENG
	Provide general surveying and construction service sitewide	HD & PJ	.1 FACENG

Facilities Support Quantification Table Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)			
Activity	**Sub-Activity**	**Calc Type**	**Calculations**
1.4.3)2 Facilities			
Facilities is responsible for the designation of the Area Facility Owners and works with project organization to appoint a facility owner as a projectized facility point of contact		HD	.1 PRJREP
Ensure that the Area Facility Owners (AFO) and the Facility Owners (FO) are compliant with TQP and issue applicable required reading to AFO/FO for new/revised requirements		HD	.2 PJSMGR
Determine and initiate frequency of facility condition assessment and evaluations		PJ	.2 PJSMGR
Interface, communicate, and inform DOE facility counterpart of issues of concern for assigned facilities on a weekly basis		PJ	.2 PJSREP
Establish and maintain facility owner list and database. This database includes phone and pager numbers of owners and alternates, facility location, and history. Track and transfer facility ownership of 500+ facilities		HD	.2 PJSREP
Post signage to facilities with updated information of facility owner, alternate Facility owner, emergency contact, and property management phone numbers		HD	.2 PJSREP
Conducts the following periodic facility inspection to accomplish the following activities:	Inspects 31 grids per month to ensure the surrounding grounds (1100 acres) are maintained.	HD	.2 PJSREP
	Conduct inspections of 537 facilities per month to ensure active projectized/non-projectized facilities and their tenants/operations are in compliance with facility requirements as well as act as a liaison with applicable project/support organizations to ID property, miscellaneous material, and records for proper disposition or to implement repairs	HD	.2 PJSREP
Subject Experts for site procedure OP-1024 and OP-1025 to provide interpretation, an annual review for program changes, and revise as applicable		HD	.2 PJSMGR

1.4.3)2 Facilities (Continued)			
Subject Experts for site procedure OP-1024 and OP-1025 to provide interpretation, an annual review for program changes, and revise as applicable (Continued)	Reviews/approves 20 Maintenance work orders and 30 work requests weekly to ensure Facility Maintenance repairs follow the graded approach	HD	.1 PJSMGR .1 PJSREP
	Serves as a point of contact to resolve tenant's safety concerns and issues, create work orders (WO) when needed, and provide feedback on work order status	HD	.2 PJSREP
	Conduct pre job walk downs to verify completeness of Maintenance work order packages and to notify team members effected by work activities (i.e. outages, repairs)	HD	.2 PJSREP
	Coordinate field activities related to removal of leased trailers	HD	.2 PJSREP
	Coordinate field activities related to outages and service interruptions	HD	.2 PJSREP
	Participate and oversee facility closure activities prior to Acceptance/turnover to the D & D contractor including facility inspections, identify abandoned records for disposition, initiate excessing of salvageable equipment and removal of miscellaneous materials from the facility	HD	
1.4.4)2 Utilities			
Provide continuous 24 hours/7 days coverage to monitor the site utility systems including performing the following activities:	Collection of various meter readings	HD	.1 BLROPR .1 STAENG .1WTROPR
	Test Emergency Power Generators	HD	.2 ENGINR, .2 STAENG
	Treat water used at the cooling tower and cooling water system and boiler feed water systems	HD	.4 WTROPR
	Provide expertise on water systems, and back-flow preventers	HD	.1 OPRMGR
	Monitor the FEMP fire pumps and hydrants	HD	.2 WTROPR

1.4.4)2 Utilities (Continued)			
Provide continuous 24 hours/7 days coverage to monitor the site utility systems including performing the following activities: (Continued)	Monitor, maintain, and operate #1 and #2 raw water (Old Production Wells) to supply raw well water for dust suppression. Water is supplied via piping system to three (3) truck filling stations and two (2) wheel-washing stations	HD	.1 OPRMGR, .3 WTROPR
	Monitor and operate the four (4) boilers located at the Boiler Plant and associated equipment used to generate steam, including treating the makeup water	HD	.2 BLROPR, .1OPRMGR, 3 STAENG
	Monitor and operate the three (3) air compressors located at the Boiler Plant and associated Equipment used to generate compressed air	HD	.2 BLROPR, .1 OPRMGR, 2 STAENG
	Monitor and operate the distribution of site steam system and two (2) Steam Chillers in the Lab Building	HD	.2 BLROPR, .1 OPRMGR, 1.5 STAENG, .1 ENGINR
	Monitor the condensate collection system	HD	.2 ENGINR
	Monitor and control emergency generators and heaters for site use	HD	.1 ENGINR
	Provide brine solution to AWWT operations	HD	.3 STAENG
	Provide Oiler Services to the site	HD	1 OILERM
	Perform chemical accountability	HD	.2 BLROPR
	Perform the duties of the Assistant Emergency Duty Officer (AEDO) for the FEMP when on duty, including providing off-shift, on-site Management presence and an on-site alternate facility owner for responding/reporting emergencies. Also perform the duties of the Emergency Duty Officer (EDO) when scheduled	HD	.8 ENGINR
Utilities general administrative work activities include:	Manage, administer and supervise all wage and salary personnel assigned to Utilities	HD & PJ	.4 CLERKS, .3 OPRMGR, .3 PJSMGR
	Develop general usage plans for Utilities based on procedures and company policies, including manpower and financial constraints	HD & PJ	.1 OPRMGR, .1 ENGINR, .2 PJSMGR, .1 PJSREP
	Develop departmental Energy Isolation Plans (EIPs) and assist other team members with the development of their program/project Energy Isolation Plans or Specific Equipment Plans (SEPs)	HD & PJ	.1 OPRMGR .1 ENGINR .1 PJSMGR .1PJSREP
	Walkdown, review drawings and verify steps to be taken for penetration permits to minimize the negative impact to site utilities	HD	1.8 ENGINR .1 WTROPR

1.4.4)2 Utilities (Continued)			
Utilities general administrative work activities include: (Continued)	Support training associated with General Site Work Qualification and specific training as spelled out in the Utilities Training and Qualification Programs #025 (Utilities Engineer), #040 (Water Treatment), and #043 (Boiler Plant), as well as, retain the necessary state/licenses/certification	HD & PJ	.1 CLERKS, .1 OPRMGR, .1ENGINR, .1 PJSMGR .1PJSREP .2 STAENG .4 WTROPR
	Coordinate the annual state inspections of all site boilers	HD	.1 OPRMGR, .2STAENG
	Collect data concerning energy (electric/gas) consumption by the FEMP and satellite facilities.	HD	.2 ENGINR .1 PJSREP
	Provide fuel consumption data quarterly for state permitting reports	HD	.1 CLERK
	Provide forecasts of energy (natural gas) usage and costs twice per month as well as various reports/ charts tracking energy use for DOE and Fluor Management	HD	.1 PRJREP
	Assist the DOE once per month in paying for the water, natural gas and electric by verifying the invoices from the Main Utility suppliers	HD	.2 ENGINR .1 PRJREP
	Coordinate utilities outages with Maintenance, Construction, and others	HD	.1 OPRMGR .5 ENGINR .1 WTROPR
	Serve as the liaison between the main utility suppliers and Fluor Fernald	HD	.1 OPRMGR .1 PJSMGR .1 PJSREP
	Investigate and resolve problems and concerns within Utilities and related areas	HD & PJ	2 OPRMGR .5 ENGINR .2 PJSMGR .1 PJSREP .5 STAENG .8 WTROPR
	Maintain logs/records of operation including but not limited to water used, chemicals used, and tower levels, fuel oil usage, natural gas usage, steam generated	HD & PJ	.8 WTROPR

1.4.5)2 Space Management			
Provide technical and administrative planning/scheduling in support of relocations and reconfigurations for Fluor, DOE, IG, and subcontractors personnel (approximately 2,200 personnel) and functional/operational (i.e. conference rooms, labs, storage, etc.) space including personnel, furniture, records, personal affects, equipment and data/voice telecommunications (computer/phone) which includes the following work activities:	Interface with CADD to design office and functional space layouts, also with applicable site and Engineering organizations to develop/revise/obtain approvals for interior floor plans and update facility drawings	HD & PJ	.18 CNSENG .16 ENGINR .06 PJSREP
	Provide technical support to Internal/External Project Organization originators to submit work orders and tickets for office and building layout configurations, assembling/disassembly of furniture, disconnect/ connect telephones, update FEMP Phone Book, move boxes and computers.	HD & PJ	.18 CNSENG .16 ENGINR .06 PJSREP .5 CLERK
	Authorized to release stored furniture for reconfiguration layouts and excess damaged or unusable furniture to excess property	HD	.18 CNSENG .16 ENGINR .06 PJSREP .1 CLERK
	Procure miscellaneous small furniture parts to support the reuse of existing major furniture components inventory (i.e., modular walls, desks, overheads, etc.)	HD & PJ	.18 CNSENG .16 ENGINR .06 PJSREP
	Provide logistical planning alternatives/ recommendations for new/existing configuration 1) To assist in the resolution of safety, health and ergonomics concerns 2) Maximize facility occupancies to meet manpower space needs	HD & PJ	.18 CNSENG .16 ENGINR .06 PJSREP
Generate and coordinate a three-week schedule of the Space Management Daily relocations and develop project specific relocation project schedules to support the FIICP, Construction/D&D, Maintenance and manpower changes	Adjust and modify schedule for work variances once per week	HD	.2 CLERK
Conduct a monthly space coordination meeting with Space Management personnel, Division Space Coordinators and other applicable site organizations		HD	.1 PJSREP
Maintain the Space Management Database to track personnel seat assignments, functional space usage, availability and the number of relocations		HD	.2 PJSREP .1 CLERK

1.4.5)2 Space Management (Continued)			
Develop/issue a monthly performance indicator chart to provide trending analysis of increases or decreases in relocations in support of remediation projects and manpower/organizational changes		HD	.1 PJSREP .1 CLERK
The off-site Facility Engineer in Space Management performs Facility Owner functions: participates in off-site fire & safety inspection such as walkthroughs with internal/external agencies and reports deficiencies to applicable site personnel and/or property owners to resolve issues for all offsite facilities; post applicable signage to off-site facilities		HD	.8 PJSREP
Provide carpenter support through Maintenance at the offsite locations which includes the following work activities:	Assemble/reconfigure/ disassemble furniture	HD	.4 CRPNTR
	Ladder inspections	HD	.1 CRPNTR
	Construction & installation of shelving, keyboard trays and miscellaneous small office equipment	HD	.3 CRPNTR
	Cutting of mats and boards for graphics	HD	.2 CRPNTR
Provide monthly space occupancy reports and Rough Order of Magnitude (ROM) estimates to support internal project/remediation schedules and relocation studies		HD	
Conduct relocation and consolidation studies in support of manpowering changes, lease terms and remediation activities		HD	.4 CNSENG
Attend a weekly planning/scheduling meeting for Infrastructure Services as well as weekly status meetings for active relocation project at an average of 2 per week		HD	.2 CNSENG .2 ENGINR
Serve as the technical representative and provide administrative oversight of onsite building/trailer leases and all offsite leases which include: monitoring space utilization at the leased facilities to ensure maximum occupancy ratios	Generating requisitions/purchase orders in accordance with contract term dates	HD	.1 PJSREP .05 CSNENG
	Conducting lease/buy analysis on leased facilities	HD	.1 PJSREP .05 CSNENG
	Interface with the contract leasing representatives, vendors and property owners	HD	.1 PJSREP .05 CSNENG
	Monitor onsite/offsite leases to ensure compliance with lease terms and conditions	HD	.1 PJSREP .05 CSNENG

1.4.5)2 Space Management (Continued)			
Interface with Site Closure and D&D Divisions to implement/revise the FIICP objective/content	The document should be revived/revised for applicability at a minimum of once per year, but it can be revised on an as needed basis when the direction of the objective have been altered	HD	.2 PJSREP
1.4.6)2 Radiological Surveillance			
Provide Radiological monitoring/surveys for RAD II Control Points for Fire & Safety, Assist Emergency Duty Officer, Security and Water Treatment personnel. **These include any radiological area on site such as WPRAP, T-93, plant 6, plant 2/3, plant 8, pilot plant, building 64/65, building 56, AWWT and any other radiological area that may be created and needs to be accessed on the backshift.**		HD & PJ	.1 RCT
Collect 21 air samples from Plant 6, Plant 1, Building 12, Building 30A, Building 79, Building 80, Temporary Structure (TS-4), Advanced Waste Water Treatment (AWWT), Laundry, and Respirator Wash Facility		HD & PJ	.2 RCT
Provide support for various radiological assistance requests such as:	Perform briefing and issue TLD's at RIMIA for offsite visitors and vendors	HD & PJ	.2 RCT
	Respond to Stack alarms at Lab and Laundry facilities	HD & PJ	.1 RCT
	Support EOC Emergency Response, carry emergency pager, and follow up actions for medical, fire and radiological support	HD & PJ	.2 RCT
	Support visitors, engineers, technical support, vendors and DOE when project Radiological Control Technician are scheduled to be off or unavailable	HD & PJ	.2 RCT
Maintain/update stand alone access computers at AWWT, Lab DOP facility, Respirator Wash facility, Buildings 3A, 4b, 64, 68, Plant 6 SW and Plant 6 NE		HD & PJ	.3 RCT
Perform and maintain restricted release accountability log for all vehicles, equipment, and materials temporarily released from the Controlled Area from anywhere on site:	Review surveys, log sheets and documents	HD & PJ	.2 RCT
	Maintain monthly survey log of vehicles (night shift only)	HD & PJ	.1 RCT
Prepare and review packages for Document Control		HD & PJ	.4 RCT

1.4.6)2 Radiological Surveillance (Continued)			
Source custodian for numerous non-exempt rad sources		HD & PJ	.1 RCT
Provide radiological coverage for back shift Garage operations (night shift only)		HD & PJ	.4 RCT
Supervise T-19 RCTs		HD & PJ	.3 Rad Supervisor
Perform release surveys for vehicles and equipment exiting controlled area		HD & PJ	3.9 RCT
Maintain site "tickler" program that tracks all required site surveys		HD & PJ	1 RCT
Respond to personnel contamination alarms at the service building and T-50 on dayshift and all control points on the backshift		HD & PJ	.2 RCT
Survey all fire and safety vehicles quarterly		HD & PJ	.2 RCT
Perform approximately 30 semi-annual surveys of heavy equipment and transportation vehicles.		HD & PJ	.2 RCT
Respond to radon alarms at the Silos Project.		HD & PJ	.1 RCT
Daily pre-operational checks on approximately 27 PCMs, 26 HFMs, and 36 hand held instruments.		HD & PJ	

R1-F01-003

SECTION 5

2.0 MANPOWER PLANS

Manpower Planning Sheet (CR2)

MPS # 1AB05 FACILITY SUPPORT

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
202 PLANT 5 D&D	10/02/2000	08/28/2001		xxx xxx xxx xx					
203 PLANT 6 D&D	10/02/2000	04/09/2002		xxx xxx xxx xxx	xxx xxx x				
204 BUILDING 64/65 D&D	07/01/2004	09/28/2004					xxx		
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
210 OU1 COMPLEX D&D	12/03/2004	07/29/2005						x xxx xxx x	
211 OU4 SILOS SUPERSTRUCTURE D&D	10/02/2006	10/31/2007							
212 OFFICE TRAILER D&D	10/03/2005	04/03/2007							xxx xxx xxx xxx
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	
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							
632 Area 5: Excavation	10/03/2005	03/31/2008							xxx xxx xxx xxx
638 Natural Resources Restoration	10/01/2003	12/31/2009					xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx
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	

Operations Labor	Boiler Operator	22.90	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1	1	1	1	0
Craft Labor	Carpenter	32.30	1	1	1.3	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.1	1.2	1.1	1.1	1.2	0.8	1.1	1.1	1.1	1.1	1
Administration	Clerks	104.40	4.4	4.4	4.6	4.6	4	4	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.5	3.6	3.5	3.4	3.6	3.1	3.6	3.5	3.5	2.3	1.3

Manpower Planning Sheet (CR2)

MPS # 1AB05 FACILITY SUPPORT

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
202 PLANT 5 D&D	10/02/2000	08/28/2001					
203 PLANT 6 D&D	10/02/2000	04/09/2002					
204 BUILDING 64/65 D&D	07/01/2004	09/28/2004					
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					
210 OU1 COMPLEX D&D	12/03/2004	07/29/2005					
211 OU4 SILOS SUPERSTRUCTURE D&D	10/02/2006	10/31/2007	xxx xxx xxx xxx	x			
212 OFFICE TRAILER D&D	10/03/2005	04/03/2007	xxx xxx x				
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					
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			
632 Area 5: Excavation	10/03/2005	03/31/2008	xxx xxx xxx xxx	xxx xxx			
638 Natural Resources Restoration	10/01/2003	12/31/2009	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx 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					

		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
Operations Labor	Boiler Operator	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Craft Labor	Carpenter	1 1 1 1	1 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Administration	Clerks	1.3 1.3 1.3 1.3	1.3 1.3 1.2 1.2	1.2 1.2 1.2 1.2	1.2 0 0 0	0 0 0 0

Manpower Planning Sheet (CR2)

MPS # 1AB05 FACILITY SUPPORT

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
Construction	Construction Engineer		48.20	2.9	2.9	2.9	2.9	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1.7	1.8	1.6	1.6	0.2	0.2
Engineering & Design	Drafter/CAD Operator		45.10	4.4	4.4	4.4	4.4	3	3	2.6	2.6	2.6	2.6	2.4	2.4	2	1.1	1.1	0.9	0.4	0.4	0.2	0.2	0	0	0	0
Engineering & Design	Engineer		144.00	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Engineering & Design	Engineer Electrical		35.20	3.2	3.2	3.2	3.2	2.4	2.4	2.2	2.2	2.2	2.2	2	2	1.6	1.2	0.8	0.4	0.2	0.2	0.2	0.2	0	0	0	0
Engineering & Design	Engineer Civil		15.00	1.4	1.4	1.4	1.4	1	1	0.9	0.9	0.9	0.9	0.8	0.8	0.7	0.5	0.4	0.2	0.1	0.1	0.1	0.1	0	0	0	0
Engineering & Design	Engineer Piping/Mechanic		22.90	2	2	2	2	1.5	1.5	1.4	1.4	1.4	1.4	1.3	1.3	1.1	0.8	0.6	0.4	0.2	0.2	0.2	0.2	0	0	0	0
Operations Labor	Engineer: Process & Startup		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	Instrument Mechanic		37.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Maintenance	Maintenance Manager		4.90	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	1	1	1	0	0
Craft Labor	Millwright		46.00	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0
Craft Labor	Oiler (Maintenance)		23.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0
Operations	Operations Manager		60.00	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1
Craft Labor	Pipefitter		60.00	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1
Maintenance	Project Support Manager		58.30	3.2	3.2	3.2	4.1	2	2	2	2	2	2	2	2	2	1.6	1.5	1.5	1.3	1.3	1.2	1.2	1	1	1	1
Maintenance	Project Support Rep.		133.50	5.7	5.7	5.2	8.8	5.1	5.1	5.1	4.8	4.7	8.3	4.6	4.9	4.3	4.5	4.8	4.8	5	4.9	4.2	3.4	3.8	3.6	4.1	3
QA/QC	QA Engineer		11.50	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
Environmental Safety & H	Rad Tech		135.60	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	6.7	6.7	6.7	6.7	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Environmental Safety & H	Safety Engineer		18.70	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.5	0.5	0.5	0.5	0.5	0
Operations Labor	Stationary Engineer		212.00	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	2
Waste Management	Waste Engineer		5.80	1.1	1.1	1.1	1.1	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	0	0
Operations Labor	Water Plant Operator		149.70	4	4	4	4	3.9	4	4	4	4	4	4	4	4	4	5.8	4	4	4	4	4	4	4	4	4
	Sheet Totals:		1426.00	65.00	65.00	65.00	69.50	57.90	58.00	57.10	56.80	54.20	57.80	53.50	53.80	47.60	45.10	46.60	43.60	42.50	42.70	39.90	41.00	40.20	40.00	36.90	21.70

Manpower Planning Sheet (CR2)

MPS # 1AB05 FACILITY SUPPORT

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
Construction	Construction Engineer	0.2	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	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
Engineering & Design	Engineer	4	4	4	4	4	4	4	4	4	3	3	3	3	0	0	0	0	0	0	0
Engineering & Design	Engineer Electrical	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Engineering & Design	Engineer Civil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Engineering & Design	Engineer Piping/Mechanic	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
Craft Labor	Instrument Mechanic	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
Maintenance	Maintenance Manager	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Craft Labor	Millwright	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Craft Labor	Oiler (Maintenance)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operations	Operations Manager	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
Craft Labor	Pipefitter	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
Maintenance	Project Support Manager	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
Maintenance	Project Support Rep.	2.3	2.3	2.1	2	2	0.8	0.8	0.8	0.4	0.4	0.4	0.4	0.4	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
Environmental Safety & Health	Rad Tech	2.2	2.2	2.2	2.2	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
Operations Labor	Stationary Engineer	2	2	2	2	2	2	2	2	2	2	2	2	2	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
Operations Labor	Water Plant Operator	4	4	4	4	4	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0
	Sheet Totals:	21.00	21.00	20.70	20.60	18.40	16.20	16.10	16.10	15.70	14.70	14.70	14.70	14.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00

ASVC5

FACILITY SUPPORT

09/07/2001
12:11 PM

PBS: 01
WBS: 1.1.A.B
CTRL ACCT: ASVC
CHARGE NO: ASVC5
COMMENT NO: F01-031

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
**** STATED IN FY01 DOLLARS ****
(1 FTE EQUALS 1747 HOURS)

DATE: 13 MAY 2001
PROJECT MGR: R. NICHOLS
CAM: R. NICHOLS
PREPARED BY: L. HAMPSHIRE
ALL FISCAL YEARS

Resource: BLROPR **BOILER OPER HELPLER** **EOC: LABOR**
Res Dept: **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	1,702.2	1,271.0	0.0	0.0	0.0	0.0
Cum Hours:	1,452.0	3,199.0	4,946.0	6,693.0	8,395.2	9,666.2	9,666.2	9,666.2	9,666.2	9,666.2
Yr Total Cost:	39,915	50,550	53,543	56,700	58,521	46,685	0	0	0	0
Cum Total Cost:	39,915	90,466	144,008	200,708	259,229	305,913	305,913	305,913	305,913	305,913

Resource: CLERKS **CLERKS** **EOC: LABOR**
Res Dept: **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:	6,565.4	6,899.0	6,813.3	6,327.1	5,987.8	4,536.9	2,271.1	2,182.2	2,096.4	505.2
Cum Hours:	6,565.4	13,464.4	20,277.7	26,604.8	32,592.6	37,129.5	39,400.6	41,582.8	43,679.2	44,184.4
Yr Total Cost:	156,847	173,483	181,471	178,457	178,899	144,820	78,590	79,592	84,971	21,108
Cum Total Cost:	156,847	330,331	511,801	690,258	869,157	1,013,977	1,092,567	1,172,159	1,257,130	1,278,238

Resource: CNSENG **CONSTRUCTION ENG** **EOC: LABOR**
Res Dept: **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:	4,210.8	3,494.0	3,494.0	3,494.0	3,264.2	1,510.0	257.6	174.7	174.7	42.1
Cum Hours:	4,210.8	7,704.8	11,198.8	14,692.8	17,957.0	19,467.0	19,724.6	19,899.3	20,074.0	20,116.1
Yr Total Cost:	229,489	200,435	212,301	224,818	222,483	109,958	20,336	14,536	16,154	4,013
Cum Total Cost:	229,489	429,924	642,225	867,044	1,089,527	1,199,485	1,219,820	1,234,356	1,250,510	1,254,523

Resource: CRPNTR **CARPENTER** **EOC: LABOR**
Res Dept: **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:	1,716.9	2,096.4	2,096.4	2,008.0	1,830.8	1,874.1	1,747.0	422.0	0.0	0.0
Cum Hours:	1,716.9	3,813.3	5,909.7	7,917.7	9,748.5	11,622.6	13,369.6	13,791.6	13,791.6	13,791.6
Yr Total Cost:	53,172	68,339	72,385	73,421	70,910	77,551	78,370	19,953	0	0
Cum Total Cost:	53,172	121,512	193,897	267,317	338,227	415,778	494,148	514,101	514,101	514,101

INCLUDES ESCALATION COSTS

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Resource: DRFCAD **DRAFTER/CAD OPERATOR** **EOC:** LABOR
Res Dept: **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:	6,388.8	4,885.0	4,365.6	2,212.4	513.8	0.0	0.0	0.0	0.0	0.0
Cum Hours:	6,388.8	11,273.8	15,639.4	17,851.8	18,365.6	18,365.6	18,365.6	18,365.6	18,365.6	18,365.6
Yr Total Cost:	199,267	160,374	151,807	81,469	20,042	0	0	0	0	0
Cum Total Cost:	199,267	359,641	511,448	592,917	612,959	612,959	612,959	612,959	612,959	612,959

Resource: ENGCVL **ENGINEER CIVIL** **EOC:** LABOR
Res Dept: **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:	2,032.8	1,658.0	1,484.0	781.2	174.7	0.0	0.0	0.0	0.0	0.0
Cum Hours:	2,032.8	3,690.8	5,174.8	5,956.0	6,130.7	6,130.7	6,130.7	6,130.7	6,130.7	6,130.7
Yr Total Cost:	110,544	94,903	89,972	50,155	11,881	0	0	0	0	0
Cum Total Cost:	110,544	205,446	295,418	345,573	357,454	357,454	357,454	357,454	357,454	357,454

Resource: ENGELE **ENGINEER ELECTRICAL** **EOC:** LABOR
Res Dept: **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:	4,646.4	4,014.8	3,666.8	1,735.2	349.4	0.0	0.0	0.0	0.0	0.0
Cum Hours:	4,646.4	8,661.2	12,328.0	14,063.2	14,412.6	14,412.6	14,412.6	14,412.6	14,412.6	14,412.6
Yr Total Cost:	243,239	221,226	214,011	107,245	22,875	0	0	0	0	0
Cum Total Cost:	243,239	464,465	678,476	785,722	808,597	808,597	808,597	808,597	808,597	808,597

Resource: ENGINR **ENGINEER** **EOC:** LABOR
Res Dept: **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:	7,044.0	8,508.4	8,508.4	8,514.4	8,508.4	8,502.3	8,502.3	7,189.4	6,432.1	1,541.3
Cum Hours:	7,044.0	15,552.4	24,060.7	32,575.2	41,083.5	49,585.8	58,088.1	65,277.5	71,709.7	73,251.0
Yr Total Cost:	534,643	681,826	722,190	765,560	810,106	864,615	937,312	850,884	833,996	205,177
Cum Total Cost:	534,643	1,216,469	1,938,659	2,704,220	3,514,326	4,378,941	5,316,253	6,167,137	7,001,133	7,206,311

INCLUDES ESCALATION COSTS

Resource: ENGMEC **ENGINEER MECH/PIPING** **EOC:** LABOR
Res Dept: **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	2,531.5	2,357.5	1,259.1	349.4	0.0	0.0	0.0	0.0	0.0
Cum Hours:	2,904.0	5,435.5	7,793.0	9,052.1	9,401.5	9,401.5	9,401.5	9,401.5	9,401.5	9,401.5
Yr Total Cost:	180,571	165,685	163,431	92,432	27,170	0	0	0	0	0
Cum Total Cost:	180,571	346,256	509,687	602,120	629,290	629,290	629,290	629,290	629,290	629,290

Resource: INSMEC **INSTRUMENT MECHANIC** **EOC:** LABOR
Res Dept: **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	1,747.0	1,747.0	1,747.0	1,747.0	421.0
Cum Hours:	1,452.0	3,199.0	4,946.0	6,693.0	8,440.0	10,187.0	11,934.0	13,681.0	15,428.0	15,849.0
Yr Total Cost:	45,259	57,317	60,710	64,290	68,101	72,758	78,876	83,136	92,387	22,950
Cum Total Cost:	45,259	102,576	163,286	227,576	295,677	368,436	447,311	530,447	622,835	645,785

Resource: MAT300 **MATERIAL OBJCLASS300** **EOC:** MATERIAL
Res Dept: 950 **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:	82,711.0	91,395.0	89,805.0	84,327.0	81,535.0	77,348.0	68,779.0	92,633.0	65,292.7	16,114.3
Cum Units:	82,711.0	174,106.0	263,911.0	348,238.0	429,773.0	507,121.0	575,900.0	668,533.0	733,825.7	749,940.0
Yr Total Cost:	82,711	93,863	94,720	91,433	90,881	88,714	81,173	112,496	81,593	20,721
Cum Total Cost:	82,711	176,574	271,294	362,726	453,607	542,321	623,494	735,990	817,583	838,305

Resource: MILWRT **MILLWRIGHT** **EOC:** LABOR
Res Dept: **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:	2,904.0	3,494.0	3,494.0	3,494.0	3,494.0	2,542.0	0.0	0.0	0.0	0.0
Cum Hours:	2,904.0	6,398.0	9,892.0	13,386.0	16,880.0	19,422.0	19,422.0	19,422.0	19,422.0	19,422.0
Yr Total Cost:	90,750	114,929	121,732	128,910	136,551	106,140	0	0	0	0
Cum Total Cost:	90,750	205,679	327,411	456,321	592,872	699,012	699,012	699,012	699,012	699,012

Resource: MNTMGR **MAINTENANCE MGR** **EOC:** LABOR
Res Dept: **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	604.0	829.0	0.0	0.0	0.0	0.0

Cum Hours:	145.2	319.9	494.6	669.3	1,273.3	2,102.3	2,102.3	2,102.3	2,102.3	2,102.3
Yr Total Cost:	6,473	8,198	8,683	9,195	33,674	49,380	0	0	0	0
Cum Total Cost:	6,473	14,671	23,354	32,548	66,223	115,603	115,603	115,603	115,603	115,603

Resource: ODC700 **ODC 700** **EOC:** ODC
Res Dept: 950 **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:	12,872.0	13,722.0	13,110.0	10,998.0	9,921.0	7,138.0	5,004.0	3,203.0	4,495.0	0.0
Cum Units:	12,872.0	26,594.0	39,704.0	50,702.0	60,623.0	67,761.0	72,765.0	75,968.0	80,463.0	80,463.0
Yr Total Cost:	12,872	14,092	13,827	11,925	11,058	8,187	5,906	3,890	5,617	0
Cum Total Cost:	12,872	26,964	40,792	52,717	63,775	71,962	77,867	81,757	87,374	87,374

Resource: ODCTRVL **TRAVEL RESOURCE** **EOC:** ODC
Res Dept: 950 **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:	5,790.0	6,172.0	5,897.0	5,046.0	6,211.0	4,285.0	2,657.0	2,296.0	2,057.0	483.0
Cum Units:	5,790.0	11,962.0	17,859.0	22,905.0	29,116.0	33,401.0	36,058.0	38,354.0	40,411.0	40,894.0
Yr Total Cost:	5,790	6,339	6,220	5,471	6,923	4,915	3,136	2,788	2,571	621
Cum Total Cost:	5,790	12,129	18,348	23,820	30,742	35,657	38,793	41,581	44,152	44,773

Resource: OILERM **OILER MAINTENANCE** **EOC:** LABOR
Res Dept: **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	1,271.0	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	9,711.0	9,711.0	9,711.0	9,711.0	9,711.0
Yr Total Cost:	38,580	48,858	51,751	54,802	58,051	45,122	0	0	0	0
Cum Total Cost:	38,580	87,438	139,189	193,991	252,042	297,164	297,164	297,164	297,164	297,164

Resource: OPRMGR **OPERATIONS MGR** **EOC:** LABOR
Res Dept: **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	3,494.0	3,494.0	3,494.0	3,494.0	3,018.0	1,747.0	1,747.0	1,747.0	421.0
Cum Hours:	2,904.0	6,398.0	9,892.0	13,386.0	16,880.0	19,898.0	21,645.0	23,392.0	25,139.0	25,560.0
Yr Total Cost:	151,821	192,271	203,653	215,661	228,445	210,818	132,295	139,440	154,957	38,493
Cum Total Cost:	151,821	344,092	547,745	763,406	991,851	1,202,669	1,334,964	1,474,404	1,629,361	1,667,855

Resource: PARSONS **PARSONS** **EOC:** SUBCONTRACTORS
Res Dept: 950 **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:	46,000.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Units:	46,000.0	46,000.0	46,000.0	46,000.0	46,000.0	46,000.0	46,000.0	46,000.0	46,000.0	46,000.0
Yr Total Cost:	46,000	0	0	0	0	0	0	0	0	0
Cum Total Cost:	46,000	46,000	46,000	46,000	46,000	46,000	46,000	46,000	46,000	46,000

Resource: PIPFTR **PIPE FITTER** **EOC:** LABOR
Res Dept: **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:	2,904.0	3,494.0	3,494.0	3,494.0	3,494.0	3,018.0	1,747.0	1,747.0	1,747.0	421.0
Cum Hours:	2,904.0	6,398.0	9,892.0	13,386.0	16,880.0	19,898.0	21,645.0	23,392.0	25,139.0	25,560.0
Yr Total Cost:	90,692	114,855	121,654	128,827	136,464	125,934	79,028	83,296	92,565	22,994
Cum Total Cost:	90,692	205,547	327,201	456,029	592,493	718,427	797,455	880,751	973,316	996,310

Resource: PJSMGR **PROJECT SUPPORT MGR** **EOC:** LABOR
Res Dept: **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:	5,043.3	3,494.0	3,494.0	2,890.0	2,178.6	1,747.0	1,747.0	1,747.0	1,747.0	421.0
Cum Hours:	5,043.3	8,537.3	12,031.3	14,921.3	17,099.9	18,846.9	20,593.9	22,340.9	24,087.9	24,508.9
Yr Total Cost:	230,580	168,145	178,099	155,997	124,568	106,722	115,695	121,943	135,513	33,663
Cum Total Cost:	230,580	398,725	576,824	732,821	857,389	964,111	1,079,806	1,201,749	1,337,263	1,370,926

Resource: PJSREP **PROJECT SUPPORT REP** **EOC:** LABOR
Res Dept: **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:	9,422.5	8,777.1	9,849.7	8,042.2	7,569.9	6,303.4	3,786.9	1,904.0	698.8	168.4
Cum Hours:	9,422.5	18,199.6	28,049.3	36,091.5	43,661.4	49,964.8	53,751.7	55,655.7	56,354.5	56,522.9
Yr Total Cost:	384,155	376,658	447,710	387,105	385,971	343,375	223,635	118,513	48,337	12,007
Cum Total Cost:	384,155	760,813	1,208,523	1,595,628	1,981,598	2,324,973	2,548,608	2,667,121	2,715,458	2,727,465

Resource: QACENG **QA ENGINEER** **EOC:** LABOR
Res Dept: **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	635.5	0.0	0.0	0.0	0.0
Cum Hours:	726.0	1,599.5	2,473.0	3,346.5	4,220.0	4,855.5	4,855.5	4,855.5	4,855.5	4,855.5
Yr Total Cost:	33,367	42,257	44,759	47,398	50,207	39,026	0	0	0	0
Cum Total Cost:	33,367	75,624	120,382	167,780	217,987	257,013	257,013	257,013	257,013	257,013

Resource: RADTEC **RAD TECH** **EOC:** LABOR
Res Dept: **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:	15,036.9	18,089.9	13,319.9	4,376.3	4,374.2	4,372.1	4,372.1	0.0	0.0	0.0
Cum Hours:	15,036.9	33,126.8	46,446.7	50,823.0	55,197.2	59,569.2	63,941.3	63,941.3	63,941.3	63,941.3
Yr Total Cost:	546,780	692,339	542,914	188,948	200,004	213,528	231,481	0	0	0
Cum Total Cost:	546,780	1,239,119	1,782,033	1,970,981	2,170,985	2,384,513	2,615,994	2,615,994	2,615,994	2,615,994

Resource: S&HENG **SAFETY ENGINEER** **EOC:** LABOR
Res Dept: **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	1,572.3	1,572.3	1,572.3	1,202.3	635.5	0.0	0.0	0.0	0.0
Cum Hours:	1,306.8	2,879.1	4,451.4	6,023.7	7,226.0	7,861.5	7,861.5	7,861.5	7,861.5	7,861.5
Yr Total Cost:	64,961	82,269	87,139	92,277	74,745	42,210	0	0	0	0
Cum Total Cost:	64,961	147,230	234,369	326,645	401,390	443,600	443,600	443,600	443,600	443,600

Resource: SERVSUB **SUBS** **EOC:** SUBCONTRACTORS
Res Dept: 950 **Overtime:** HERC **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:	38,000.0	38,000.0	33,000.0	38,000.0	26,000.0	26,000.0	26,000.0	0.0	0.0	0.0
Cum Units:	38,000.0	76,000.0	109,000.0	147,000.0	173,000.0	199,000.0	225,000.0	225,000.0	225,000.0	225,000.0
Yr Total Cost:	38,000	39,026	34,806	41,202	28,980	29,821	30,685	0	0	0
Cum Total Cost:	38,000	77,026	111,832	153,034	182,014	211,835	242,520	242,520	242,520	242,520

09/07/2001
12:11 PM

Resource: STAENG **STATIONARY ENGINEER** **EOC:** LABOR
Res Dept: **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:	15,308.0	18,435.3	18,435.3	18,453.2	18,435.3	14,613.9	4,596.4	4,605.3	4,600.9	1,094.4
Cum Hours:	15,308.0	33,743.3	52,178.6	70,631.8	89,067.1	103,681.1	108,277.5	112,882.8	117,483.6	118,578.0
Yr Total Cost:	546,718	693,291	734,334	778,681	823,728	696,611	237,613	251,122	278,692	67,976
Cum Total Cost:	546,718	1,240,009	1,974,342	2,753,023	3,576,751	4,273,362	4,510,976	4,762,097	5,040,789	5,108,765

Resource: WSTENG **WASTE ENGINEER** **EOC:** LABOR
Res Dept: **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:	1,597.2	174.7	174.7	174.7	82.2	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,597.2	1,771.9	1,946.6	2,121.3	2,203.5	2,203.5	2,203.5	2,203.5	2,203.5	2,203.5
Yr Total Cost:	81,505	9,384	9,939	10,525	5,246	0	0	0	0	0
Cum Total Cost:	81,505	90,889	100,828	111,353	116,599	116,599	116,599	116,599	116,599	116,599

Resource: WTROPR **WATER PLANT OPER** **EOC:** LABOR
Res Dept: **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:	7,287.1	8,723.6	8,765.7	9,568.4	8,765.7	8,758.6	8,758.6	8,772.8	8,765.7	2,075.1
Cum Hours:	7,287.1	16,010.7	24,776.4	34,344.9	43,110.6	51,869.2	60,627.8	69,400.7	78,166.4	80,241.5
Yr Total Cost:	255,076	321,556	342,057	391,950	383,697	409,464	443,892	468,950	520,533	126,048
Cum Total Cost:	255,076	576,632	918,689	1,310,639	1,694,337	2,103,801	2,547,692	3,016,643	3,537,175	3,663,224

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:	104,450.1	110,125.2	105,168.8	88,179.7	80,742.4	67,185.3	41,280.0	32,238.5	29,756.6	7,110.5
Cum Hours:	104,450.1	214,575.3	319,744.1	407,923.8	488,666.2	555,851.5	597,131.5	629,370.0	659,126.6	666,237.1
Yr Total Cost:	4,499,776	4,892,468	4,965,820	4,434,853	4,270,180	3,836,352	2,778,022	2,350,542	2,347,886	575,772
Cum Total Cost:	4,499,776	9,392,244	14,358,064	18,792,917	23,063,098	26,899,449	29,677,471	32,028,013	34,375,899	34,951,670

CAM _____ CONTROL TEAM _____

INCLUDES ESCALATION COSTS

WBS DICTIONARY
CONTROL ACCOUNT/CHARGE NUMBER

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.A.B	INFRASTRUCTURE SERVICES	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
ASVC6	LABOR HOUR SUPPORT AND PLANNING	

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Subcontractors
Materials
ODC's

b. TECHNICAL CONTENT:

This charge number provides for the Labor Hour Contractor (LHC) office staff, core crew, support shops, building trades, craft training, and small miscellaneous tools and equipment. This charge number also provides for the management of the Labor Hour Contract and planning activities for M&IS/FEMP.

c. SCOPE OF WORK:

LABOR HOUR CONTRACTOR OVERHEAD

- The Wise Office Staff scope includes performing project planning and support, craft management, project coordination, payroll activities, coordination of benefits, coordination with GCBT&C, entrance/exit scheduling, training scheduling and records, all health & safety planning, meetings, oversight, and records.
- The Wise Fab Shop scope includes the operation and maintenance of the Fabrication Shop. The activities include receiving, excessing, inventory, maintenance, repair, and daily control of all Wise tools, equipment, and chemicals.
- The Building Trades scope includes travel and labor costs associated with

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.A.B	INFRASTRUCTURE SERVICES	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
ASVC6	LABOR HOUR SUPPORT AND PLANNING	

14. ELEMENT TASK DESCRIPTION

Stewards representing the GCBT&C. The Stewards will attend union related meeting, participate in the Safety First Initiative, sit as a voting member on the LSRC, and attend to all other union related business for the Building Trades.

- The Craft Training scope includes costs associated with supplying all training, where one project can not be identified, for all staff and craft personnel who are required to enter the site and/or perform field activities.
- The Core Crew scope includes retaining a core crew of craft in the event that project work is not available. The maximum number of hours that a member of the core crew can charge time to this charge number is 120 hours per fiscal year. The core crew is limited to GCBT&C craft only and are defined as two laborers, two electricians, two pipefitters, one teamster, and one operator.

FLUOR MANAGEMENT OF LABOR HOUR CONTRACTOR

- Contract management (invoice review, addressing general questions from other projects regarding protocols for using this contract, coordinating project priorities, track & plan government equipment usage).
- Communication with stakeholders (e.g., DOE, GCBT&C, other projects).
- Supporting the home project during project initiation (e.g., D-B determinations, Task Order, material take-offs).
- Development of field permissives (e.g., traveler, permits).
- Direct field oversight of craft.
- Supporting the project during closeout (e.g., project closeout report, records management, etc.).

GENERAL

- Miscellaneous tools, equipment, chemicals, and general supplies may be purchased which may be used on any construction and/or demolition project. This charge number also includes the purchase of heavy equipment (i.e. loadall), and rental and service of port-o-lets, and purchase of consumable items (i.e. gas, ice water, etc.).
- General planning and coordination activities will by performed to support M&IS/FEMP activities.

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.A.B	INFRASTRUCTURE SERVICES	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
ASVC6	LABOR HOUR SUPPORT AND PLANNING	

14. ELEMENT TASK DESCRIPTION

- Maintain the Model Construction Contract be reviewing site commitments to determine if they are applicable to the model and integrating the requirements as necessary.
- Assist and/or mentor Soils, Silos, Aquifer, D & D projects in the development of project-specific Invitation for Bids (IFBs)/Request for Proposals (RFPs).
- Review all project-specific IFB/RFPs prior to issuance to ensure compliance with the model IFB/RFP.
- Assist in the project-specific IFB/RFP storyboards.
- Providing technical input to site and construction procedures.
- Assist and/or mentor all projects in the development of project-specific travelers.
- Perform record custodian activities for the management of the Labor Hour Contractor
- Perform sitewide utility integration and planning activities
- Perform integration activities between D&D Projects and F&PS
- Develop weekly and monthly reports for IS/M&IS
- Identify, plan, coordinate, and schedule facilities closure activities which are outside the scope of Facility Shutdown and D&D Projects
- Perform technical writing, prepare deliverables, and provide communications regarding Operable Unit 3 issues

d. WORK SPECIFICALLY EXCLUDED:

- Project related direct craft costs
- Project related tools and equipment costs
- Project specific training
- FAT&LC charges
- D&D planning
- Computer purchases and upgrades
- Fluor Fernald General and Administrative Budget

SECTION 6

1.0 NARRATIVE

1. PROJECT TITLE: FACILITY AND PROJECT SUPPORT	2. DATE: 09/10/01	3. PBS#: 01
4. WBS ELEMENT CODE: 1.1.A.B.	5. WBS ELEMENT TITLE: INFRASTRUCTURE SERVICES	
6. CAM NAME/ PHONE: ROBERT HAMMACK	7. CAM SIGNATURE:	
8. ORIGINAL/ CHANGE SCOPE/ PER CP#:	9. CONTROL ACCOUNT: ASVC	

PART 2: ASVC – INFRASTRUCTURE SERVICES
Section 6: ASVC6 – Labor Hour Support and Planning (Includes Wise Overhead)

1.0 NARRATIVE

1.1 OVERVIEW

This charge number provides for the Labor Hour Contractor (LHC) office staff, core crew, support shops, building trades, craft training, and small miscellaneous tools and equipment. This charge number also provides for the management of the Labor Hour Contract and planning activities for M&IS/FEMP.

1.2 ASSUMPTIONS/EXCLUSIONS

1.2.1 Assumptions

- Assumes the Labor Hour Contractor (LHC), Wise Services, Inc. will be remain on-site throughout FY06
- Assumes LHC will be assigned small projects that may be scheduled to allow a levelized work force (20-35 craft) each year until FY04 then decrease 25% each year until FY06
- Assumes craft manhours for training will remain consistent with historical costs and will be planned consistent with the work force described above
- Assumes the site retains two full time Building Trades Representatives from FY01, then one representative from FY05-FY06
- Assumes the Davis-Bacon determination of 4 work orders per FY will result in discrete construction projects. This number is based on historical averages and Professional Judgement for future FY's
- Assumes the OU3 RD/RA Work Plan commitments to the EPA's regarding regulatory deliverables (i.e. Implementation Plan and Travelers) will not change

- Manpower calculations are based on the following four possible sources: Historical Data (HD), Industry Standard (IS), Composite of HD & IS (Comp), and Professional Judgement (PJ). See Calculation Table ~~in~~ following Section ~~V~~ 1.4.4 for calculations by work scope activity/sub activity

R1-D-035

- Other Direct Costs (ODCs) are based on FY00 actual cost of work performed and budgeted manpower (FTEs). ~~, as follows: ODC$s/FTEs. Minimum of $100/FTE will be used if FY00 calculations are < $100/FTE.~~ See Section 1.4.3 for quotient, by work scope function

R1-F01-002

- ~~Premium~~ Overtime is based on FY00 actual cost of work performed overtime hours (OT) and regular (Reg) hours, as follows: OT/Reg. See Section 1.4.2 for quotient, by work scope function

R1-D-048

- Material rates are broken down into two parts: 1-General Materials and 2-Additional Materials. General Materials are based on data supplied by Estimating Services. Additional Materials are based on FY00 ACWP data. See section 1.4 for materials rates.

- Subcontractor dollars are based on existing subcontracts at time of this baseline and anticipated new subcontracts not currently in place.

R1-F01-001

- Dollar amounts are unescalated
- All calculations for manpower, subcontracts, materials, and ODCs are based on a 12-month year for 2002, 2003, 2004, 2005, 2006, 2007, 2008, and 2009
- All overtime is planned overtime
- Assume that all work activities are based on a 40-hour workweek
- The basis of this estimate assumes the use of Remediation Schedule, and Execution 6 Scenario
- Sales Tax @ 6% for all taxable items
- Estimate is expressed in FY01 dollars
- Estimate represents budget for the length of this charge number

1.2.2 Exclusions

- Excludes the scope and budget of any project other than those listed below
- Excludes project related direct craft costs

- Excludes project related tools and equipment costs
- Excludes project specific training
- Excludes any FAT&LC charges
- Excludes D&D planning

R1-F01-001

- Computer purchases and upgrades
- Does not include Fluor Fernald General Administrative Cost

1.2.3 Government-Furnished Equipment/Services

None

1.3 DRIVERS

- Health and Safety Building and Laboratory Building Roof Repair
- Renovation of Building 44A
- Renovation of T-76
- OU3 RD/RA Work Plan
- CT Procedures
- Greater Cincinnati Building and Construction Trades Council Agreement
- Renovation of Southwest Boiler House (93A)
- Construction of Pre-Engineered Building and Renovation of T-33
- T-84 Relocation
- T-86 and T-87 Relocation
- Installation of Medical Trailer Complex
- Installation of Temporary Trailer Complexes
- Miscellaneous Small Projects Resulting from Maintenance Work Orders

R1-F01-020

- Installation of Communications Center
- Improvements to T-45/46
- Improvements to Bldg. 44A (T-1)
- Improvements to the Services Building
- Site Road Paving
- Plant 6 Water Management

1.4 SCOPE OF WORK

1.4.1 Labor Hour Support and Planning

1.4.1)1 Plan/Scope

Labor Hour Contractor Overhead

- The Wise Office Staff scope includes performing project planning and support, craft management, project coordination, payroll activities, coordination of benefits, coordination with GCBT&C, entrance/exit scheduling, training scheduling and records, all health and safety planning, meetings, oversight, and records

- The Wise Fab Shop scope includes the operation and maintenance of the Fabrication Shop. The activities include receiving, excessing, inventory, maintenance, repair, and daily control of all Wise tools, equipment, and chemicals

- The Building Trades scope includes travel and labor costs associated with Stewards representing the GCBT&C. The Stewards will attend union related meeting, participate in the Safety First Initiative, sit as a voting member on the LSRC, and attend to all other union related business for the Building Trades

- The Craft Training scope includes costs associated with supplying all training, where one project can not be identified, for all staff and craft personnel who are required to enter the site and/or perform field activities

- The Core Crew scope includes retaining a core crew of craft in the event that project work is not available.

- The maximum number of hours that a member of the core crew can charge time to this task order is 120 hours per fiscal year. The core crew is limited to GCBT&C craft only and is defined as two laborers, two electricians, two pipefitters, one teamster, and one operator.

Fluor Management of Labor Hour Contractor

- Contract management (invoice review, addressing general questions from other projects regarding protocols for using this contract, coordinating project priorities, track & plan government equipment usage)

- Communication with stakeholders (e.g., DOE, GCBT&C, other projects)

- Supporting the home project during project initiation (e.g., D-B determinations, Task Order, material take-offs)

- Development of field permissives (e.g., traveler, permits)
- Direct field oversight of craft
- Supporting the project during closeout (e.g., project closeout report, records management, etc.)

General

- Miscellaneous tools, equipment, chemicals, and general supplies may be purchased which may be used on any construction and/or demolition project. This charge number also includes the purchase of heavy equipment (i.e. loadall), and rental and service of port-o-lets, and purchase of consumable items (i.e. gas, ice water, etc.)
- General planning and coordination activities will by performed to support M&IS/FEMP activities
- Maintain the Model Construction Contract be reviewing site commitments to determine if they are applicable to the model and integrating the requirements as necessary
- Assist and/or mentor Soils, Silos, Aquifer, D&D projects in the development of project-specific Invitation for Bids (IFBs)/Request for Proposals (RFPs)
- Review all project-specific IFB/RFPs prior to issuance to ensure compliance with the model IFB/RFP
- Assist in the project-specific IFB/RFP storyboards
- Providing technical input to site and construction procedures
- Assist and/or mentor all projects in the development of project-specific Travelers
- Perform record custodian activities for the management of the Labor Hour Contractor
- Perform sitewide utility integration and planning activities
- Perform integration activities between D&D Projects and F&PS
- Develop weekly and monthly report for IS/M&IS
- Identify, plan, coordinate, and schedule facilities closure activities which are outside the scope of Facility Shutdown and D&D Projects

- Perform technical writing, prepare deliverables, and provide communications regarding Operable Unit 3 issues

~~The scope of work for this charge number will require support for planning activities from the following centralized organizations/resources which are budgeted in another cost account:~~

R1-D-348

~~-Engineering for Title 1 and II~~
~~-Maintenance~~
~~-Acquisitions~~
~~-IH Engineer~~
~~-RAD Engineer~~
~~-WAO~~
~~-QA~~
~~-Waste Generator Services~~

R1-D-348

- The scope of work for this charge number will require support for activities from the following ~~centralized~~ organizations/resources which are included in this cost account:

  - CCM
  - CE
  - CC
  - Project Engineer
  - Safety Representative
  - Wise Staff
  - GCBT&C direct craft

R1-D-048

1.4.1)2 Quantifications/~~Premium~~ Overtime

Refer to Quantification Table

~~Old Charge # 7REL1 - .0409~~
~~Old Charge # 7TSP4 - .0301~~
~~Average = .0355 x regular hours~~ Overtime at 1.5x Construction Coordinator 9.33%, Construction Engineer 4.87%, and Construction Manager 2.51%

1.4.1)3 ODCs

Based on 3FCS1 Actuals of:

ODC 600 - None
ODC 700 - $241/FTE
ODC Travel - $339/FTE

1.4.1)4 Subcontracts/Materials

R1-F01-019

Subcontracts:

Port-A-Lets FY01 FY02 FY03 FY04 FY05 FY06
10k 12k 12k 12k 11.3k 12.7k
8 craft X 120 down time hours/year x $~~40~~38.12/hour = $~~38,400~~36,595
training = 805/year x $~~40~~38.12/hour = $~~32,200~~75,000
new hire training = 15 FTEs x 94 hours/year x $~~40~~38.12/hour = $~~56,400~~53,749

R1-F01-019

1 Proj Supt x 1760 hours/year x $57.68 = $101,516

~~4 office FTEs X $50/hour = $349,400~~Office Staff
1 Admin x 1760 x hours/year x $25.48 = $44,844
1 Safety Eng. x 1760 hours/year x $48.69 = $85694
1 Safety Eng x 1760 hours/year x $40.53 = $71,332
1 Field Supt x 880 hours/year x $41.61 = $36,617

~~1 fab shop FTE X $40/hour = $69,880~~Fab Shop
1 Field Supt. X 1760 hours/year x $41.61 = $73,233

~~stewards FTEs X $40/hour = $139,760~~Bldg Trades Stewards
1 Pipefitter x 1760 hours/year x $41.90 = $73,744
1 Electrician x 1760 hours/year x $38.26 = $67,338
Total - $~~686,040~~675,349 per year

Materials:

General Materials: $594/FTE
Additional Materials: Gasoline = $28.60/Wise FTE
Ice = $31.40/Wise FTE
Misc. Tools/Equip = $2,460/Wise FTE

~~Materials/FTE $300/Sub FTE/Year~~
~~Materials/Year NONE~~

Labor Hour Support and Planning Quantification Table Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)			
Activity	**Sub-Activity**	**Calc Type**	**Calculations**
Labor Hour Contract Overhead			
The Wise Office Staff scope includes performing project planning and support, craft management, project coordination, payroll activities, coordination of benefits, coordination with GCBT&C, entrance/exit scheduling, training scheduling and records, all health & safety planning, meetings, oversight, and records			4 Substaff
The Wise Fab Shop scope includes the operation and maintenance of the Fabrication Shop. The activities include receiving, excessing, inventory, maintenance, repair, and daily control of all Wise tools, equipment, and chemicals		HD & PJ	1 Subcraft (1 FAB Shop Attendant)
The Building Trades scope includes travel and labor costs associated with Stewards representing the GCBT&C. The Stewards will attend union related meeting, participate in the Safety First Initiative, sit as a voting member on the LSRC, and attend to all other union related business for the Building Trades			2 Subcraft (1 Pipefitter) (1 Electrician)
The Craft Training scope includes costs associated with supplying all training, where one project can not be identified, for all staff and craft personnel who are required to enter the site and/or perform field activities	Annual Training	HD	= 35 Hrs/year x avg. 23 core crew = 805 hrs/year. If 1746 hrs/yr = 1 FTE 805 hrs/yr = .5 FTE Planned .1 FTE/qtr.
	New hire Training	HD	= 94hrs/yr If hire avg.15 new/yr = 1402 hrs/yr If 1746 hrs/yr = 1 FTE Planned 1 FTE/yr or .25/qtr.
The Core Crew scope includes retaining a core crew of craft in the event that project work is not available. The maximum number of hours that a member of the core crew can charge time to this task order is 120 hours per fiscal year		HD	2 laborers, 2 electricians, 2 pipefitters, 1 teamster, 1 operator
Fluor Management of Labor Hour Contractor			
Contract management (invoice review, addressing general questions from other projects regarding protocols for using this contract, coordinating project priorities, track & plan government equipment usage)		PJ	.09 CSNMGR
Communication with stakeholders (e.g., DOE, GCBT&C, other projects)		PJ	.09 CSNMGR

Labor Hour Support and Planning Quantification Table

Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity	Sub-Activity	Calc Type	Calculations
Supporting the home project during project initiation (e.g., D-B determinations, Task Order, material take-offs)		PJ	.09 CSNMGR
Development of field permissives (e.g., traveler, permits)		PJ	.09 CSNMGR
Direct field oversight of craft		PJ	.09 CSNMGR
Supporting the project during closeout (e.g., project closeout report, records management, etc.)		PJ	.09 CSNMGR
General Scope			
General planning and coordination activities will be performed to support M&IS/FEMP activities		PJ	.31 CSNENR .12 CSNMGR .08 CSNCOR .08 ENGINR
Maintain the Model Construction Contract be reviewing site commitments to determine if they are applicable to the model and integrating as necessary		PJ	.31 CSNENR .12 CSNMGR .08 CSNCOR .08 ENGINR
Assist and/or mentor all projects in the development of project-specific Invitation for Bids (IFBs)/Request for Proposals (RFPs)		PJ	.31 CSNENR .12 CSNMGR .08 CSNCOR .08 ENGINR
Review all project-specific IFB/RFPs prior to issuance to ensure compliance with the model IFB/RFP		PJ	.31 CSNENR .12 CSNMGR .08 CSNCOR .08 ENGINR
Assist in the project-specific IFB/RFP storyboards		PJ	.31 CSNENR .12 CSNMGR .08 CSNCOR .08 ENGINR
Providing technical input to site and construction procedures		PJ	.31 CSNENR .12 CSNMGR .08 CSNCOR .08 ENGINR
Assist and/or mentor all projects in the development of project-specific Travelers		PJ	.31 CSNENR .12 CSNMGR .08 CSNCOR .08 ENGINR
Perform record custodian activities for the management of the Labor Hour Contractor		PJ	.31 CSNENR .12 CSNMGR .08 CSNCOR .08 ENGINR
Perform sitewide utility integration and planning activities		PJ	.31 CSNENR .12 CSNMGR .08 CSNCOR .08 ENGINR
Perform integration activities between D&D Projects and F&PS		PJ	.31 CSNENR .12 CSNMGR .08 CSNCOR .08 ENGINR

Labor Hour Support and Planning Quantification Table
Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity	Sub-Activity	Calc Type	Calculations
Develop weekly and monthly report for IS/M&IS		PJ	.31 CSNENR .12 CSNMGR .08 CSNCOR .08 ENGINR
Identify, plan, coordinate, and schedule facilities closure activities which are outside the scope of Facility Shutdown and D&D Projects		PJ	.31 CSNENR .12 CSNMGR .08 CSNCOR .08 ENGINR
Perform technical writing, prepare deliverables, and provide communications regarding Operable Unit 3 issues		PJ	.31 CSNENR .12 CSNMGR .08 CSNCOR .08 ENGINR

R1-F01-003

SECTION 6

2.0 MANPOWER PLANS

Manpower Planning Sheet (CR2)

MPS # 1AB07 LABOR HOUR SUPPORT & FACILITY SHUTDOWN

	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
202	PLANT 5 D&D	10/02/2000	08/28/2001		xxx xxx xxx xx					
203	PLANT 6 D&D	10/02/2000	04/09/2002		xxx xxx xxx xxx	xxx xxx x				
204	BUILDING 64/65 D&D	07/01/2004	09/28/2004					xxx		
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
210	OU1 COMPLEX D&D	12/03/2004	07/29/2005						x xxx xxx x	
211	OU4 SILOS SUPERSTRUCTURE D&D	10/02/2006	10/31/2007							
212	OFFICE TRAILER D&D	10/03/2005	04/03/2007							xxx xxx xxx xxx
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	
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							
632	Area 5: Excavation	10/03/2005	03/31/2008							xxx xxx xxx xxx
638	Natural Resources Restoration	10/01/2003	12/31/2009					xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx
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	

Construction	Construction Mgr.	28.00	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Construction	Construction Engineer	72.00	2.5	2.5	2.5	2.5	3.5	3.5	3.5	3.5	4	4	4	4	5	5	5	5	2	2	2	2	1	1	1	1
Construction	Construction Coordinator	24.00	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5

Manpower Planning Sheet (CR2)

MPS # 1AB07 LABOR HOUR SUPPORT & FACILITY SHUTDOWN

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
202 PLANT 5 D&D	10/02/2000	08/28/2001					
203 PLANT 6 D&D	10/02/2000	04/09/2002					
204 BUILDING 64/65 D&D	07/01/2004	09/28/2004					
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					
210 OU1 COMPLEX D&D	12/03/2004	07/29/2005					
211 OU4 SILOS SUPERSTRUCTURE D&D	10/02/2006	10/31/2007	xxx xxx xxx xxx	x			
212 OFFICE TRAILER D&D	10/03/2005	04/03/2007	xxx xxx x				
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					
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			
632 Area 5: Excavation	10/03/2005	03/31/2008	xxx xxx xxx xxx	xxx xxx			
638 Natural Resources Restoration	10/01/2003	12/31/2009	xxx xxx xxx xxx	xxx xxx xxx xxx	xxx 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					

Construction	Construction Mgr.	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	
Construction	Construction Engineer	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	
Construction	Construction Coordinator	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 # 1AB07 LABOR HOUR SUPPORT & FACILITY SHUTDOWN

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
Engineering & Design	Engineer		19.20	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1	1	1	1	2	2	2	2	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.3
Environmental Safety & H	Safety Engineer		12.00	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0
Subcontract	Subcontract Craft		80.40	3.5	5.8	3.5	3.5	3.5	5.8	3.5	3.5	3.5	5.8	3.5	3.5	3.5	5.8	3.5	3.5	1.6	4	1.6	1.6	1.6	1.6	1.6	1.6
Subcontract	Subcontract Staff		88.00	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3
		Sheet Totals:	323.60	14.00	16.30	14.00	14.00	14.00	16.30	14.00	14.00	15.50	17.80	15.50	15.50	18.50	20.80	18.50	18.50	8.60	11.00	8.60	8.60	7.40	7.40	7.40	7.40

Manpower Planning Sheet (CR2)

MPS # 1AB07 LABOR HOUR SUPPORT & FACILITY SHUTDOWN

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
Engineering & Design	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
Subcontract	Subcontract Craft		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subcontract	Subcontract Staff		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

3.0 ESTIMATE

ASVC6

LABOR HOUR SUPPORT & PLANNING

09/07/2001
12:11 PM

PBS: 01
WBS: 1.1.A.B
CTRL ACCT: ASVC
CHARGE NO: ASVC6
COMMENT NO: F01-031

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
**** STATED IN FY01 DOLLARS ****
(1 FTE EQUALS 1747 HOURS)

DATE: 13 MAY 2001
PROJECT MGR: R. NICHOLS
CAM: R. NICHOLS
PREPARED BY: L. HAMPSHIRE
ALL FISCAL YEARS

Resource: CNSCOD **CONSTRUCTION COORD** **EOC:** LABOR
Res Dept: **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:	1,627.0	1,922.0	1,922.0	3,843.0	960.5	960.5	0.0	0.0	0.0	0.0
Cum Hours:	1,627.0	3,549.0	5,471.0	9,314.0	10,274.5	11,235.0	11,235.0	11,235.0	11,235.0	11,235.0
Yr Total Cost:	54,418	67,135	71,110	150,548	39,853	42,579	0	0	0	0
Cum Total Cost:	54,418	121,553	192,663	343,211	383,064	425,643	425,643	425,643	425,643	425,643

Resource: CNSENG **CONSTRUCTION ENG** **EOC:** LABOR
Res Dept: **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:	3,848.0	6,332.5	7,337.0	9,172.0	3,669.0	1,834.0	0.0	0.0	0.0	0.0
Cum Hours:	3,848.0	10,180.5	17,517.5	26,689.5	30,358.5	32,192.5	32,192.5	32,192.5	32,192.5	32,192.5
Yr Total Cost:	215,657	369,521	456,411	604,224	256,037	136,719	0	0	0	0
Cum Total Cost:	215,657	585,177	1,041,588	1,645,812	1,901,849	2,038,569	2,038,569	2,038,569	2,038,569	2,038,569

Resource: CNSMGR **CONSTRUCTION MGR** **EOC:** LABOR
Res Dept: **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:	2,991.4	1,834.4	1,834.4	1,834.4	1,812.5	1,812.5	0.0	0.0	0.0	0.0
Cum Hours:	2,991.4	4,825.7	6,660.1	8,494.4	10,306.9	12,119.4	12,119.4	12,119.4	12,119.4	12,119.4
Yr Total Cost:	188,202	122,580	129,836	137,491	143,100	152,887	0	0	0	0
Cum Total Cost:	188,202	310,782	440,618	578,109	721,210	874,096	874,096	874,096	874,096	874,096

Resource: ENGINR **ENGINEER** **EOC:** LABOR
Res Dept: **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	1,747.0	3,494.0	873.5	524.1	0.0	0.0	0.0	0.0

INCLUDES ESCALATION COSTS

Cum Hours:	726.0	1,599.5	3,346.5	6,840.5	7,714.0	8,238.1	8,238.1	8,238.1	8,238.1	8,238.1
Yr Total Cost:	49,920	63,220	133,925	283,643	75,114	48,151	0	0	0	0
Cum Total Cost:	49,920	113,140	247,065	530,707	605,822	653,972	653,972	653,972	653,972	653,972

Resource: MAT300 **MATERIAL OBJCLASS300** **EOC:** MATERIAL
Res Dept: 950 **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:	76,634.8	91,960.5	93,445.5	95,227.5	68,233.0	52,160.0	0.0	0.0	0.0	0.0
Cum Units:	76,634.8	168,595.3	262,040.9	357,268.4	425,501.4	477,661.4	477,661.4	477,661.4	477,661.4	477,661.4
Yr Total Cost:	76,635	94,443	98,560	103,252	76,054	59,825	0	0	0	0
Cum Total Cost:	76,635	171,078	269,638	372,889	448,943	508,768	508,768	508,768	508,768	508,768

Resource: ODC700 **ODC 700** **EOC:** ODC
Res Dept: 950 **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:	1,305.0	1,567.0	2,169.0	2,892.0	1,085.0	795.0	0.0	0.0	0.0	0.0
Cum Units:	1,305.0	2,872.0	5,041.0	7,933.0	9,018.0	9,813.0	9,813.0	9,813.0	9,813.0	9,813.0
Yr Total Cost:	1,305	1,609	2,288	3,136	1,209	912	0	0	0	0
Cum Total Cost:	1,305	2,914	5,202	8,338	9,547	10,459	10,459	10,459	10,459	10,459

Resource: ODCTRVL **TRAVEL RESOURCE** **EOC:** ODC
Res Dept: 950 **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:	1,838.0	2,205.0	3,054.0	4,072.0	1,527.0	1,120.0	0.0	0.0	0.0	0.0
Cum Units:	1,838.0	4,043.0	7,097.0	11,169.0	12,696.0	13,816.0	13,816.0	13,816.0	13,816.0	13,816.0
Yr Total Cost:	1,838	2,265	3,221	4,415	1,702	1,285	0	0	0	0
Cum Total Cost:	1,838	4,103	7,324	11,739	13,441	14,725	14,725	14,725	14,725	14,725

Resource: S&HENG **SAFETY ENGINEER** **EOC:** LABOR
Res Dept: **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	1,747.0	1,747.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	726.0	1,599.5	3,346.5	5,093.5	5,093.5	5,093.5	5,093.5	5,093.5	5,093.5	5,093.5
Yr Total Cost:	36,089	45,705	96,821	102,530	0	0	0	0	0	0

INCLUDES ESCALATION COSTS

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Cum Total Cost:	36,089	81,794	178,615	281,145	281,145	281,145	281,145	281,145	281,145	281,145

Resource: SERVSUB **SUBS** **EOC:** SUBCONTRACTORS
Res Dept: 950 **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:	10,000.0	12,000.0	12,000.0	12,000.0	11,320.8	12,679.2	0.0	0.0	0.0	0.0
Cum Units:	10,000.0	22,000.0	34,000.0	46,000.0	57,320.8	70,000.0	70,000.0	70,000.0	70,000.0	70,000.0
Yr Total Cost:	10,000	12,324	12,657	13,011	12,618	14,542	0	0	0	0
Cum Total Cost:	10,000	22,324	34,981	47,992	60,610	75,153	75,153	75,153	75,153	75,153

Resource: WISE **WISE CONSTRUCTION** **EOC:** SUBCONTRACTORS
Res Dept: 950 **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:	562,791.0	675,349.0	675,349.0	675,349.0	675,349.0	675,349.0	0.0	0.0	0.0	0.0
Cum Units:	562,791.0	1,238,140.0	1,913,489.0	2,588,838.0	3,264,187.0	3,939,536.0	3,939,536.0	3,939,536.0	3,939,536.0	3,939,536.0
Yr Total Cost:	562,791	693,583	712,310	732,255	752,758	774,588	0	0	0	0
Cum Total Cost:	562,791	1,256,374	1,968,685	2,700,939	3,453,697	4,228,285	4,228,285	4,228,285	4,228,285	4,228,285

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:	9,918.4	11,835.9	14,587.4	20,090.4	7,315.5	5,131.1	0.0	0.0	0.0	0.0
Cum Hours:	9,918.4	21,754.2	36,341.6	56,431.9	63,747.4	68,878.5	68,878.5	68,878.5	68,878.5	68,878.5
Yr Total Cost:	1,196,855	1,472,385	1,717,139	2,134,504	1,358,447	1,231,487	0	0	0	0
Cum Total Cost:	1,196,855	2,669,239	4,386,378	6,520,882	7,879,329	9,110,816	9,110,816	9,110,816	9,110,816	9,110,816

CAM _____ CONTROL TEAM _____

INCLUDES ESCALATION COSTS

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	6

5. WBS ELEMENT CODE	6. WBS ELEMENT TITLE
1.1.A.C	FIELD OPERATIONS

7. APPROVED CP NO.	8. DATE OF CHANGES
NEW PER CP# FY0115-0001-00	12/01/2000

9. SYSTEM DESIGN DESCRIPTION	10. BUDGET AND REPORTING NUMBER
CERCLA/ACA	EW05H3010

11. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Materials
Subcontracts
ODCs

b. TECHNICAL CONTENT:

The Field Operation's element provides field support to site projects. This element is comprised of the following sub-elements:
Quality Control Operations
Environmental Safety and Health (ES&H) and Radiological Operations
Field Procurement

c. SCOPE OF WORK:

Field Operations provides the following support to site projects:

Quality Control Operations - Provides quality engineering, quality control oversight, and inspections and assessments of Fluor Fernald and contractor programs, work plans, procedures, and processes.

ES&H and Rad Operations - Provides support to line management in the implementation of safety and health requirements identified by the ESH&Q Program by providing site projects with safety and radiological engineers, industrial hygienists, and field technicians.

Field Procurement - Provides procurement, acquisitions, and contract administration services to site projects.

WORK SCOPE DEFINITION
(Control Account)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	05/01/2001	Page 1

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.A.C	FIELD OPERATIONS	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L HAMPSHIRE	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW PER CP# FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ONE LINE)	
AFLD	FIELD OPERATIONS	

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Materials
Subcontracts
ODCs

b. TECHNICAL CONTENT:

The Field Operation's element provides field support to site projects. This element is comprised of the following sub-elements:
Quality Control Operations
Environmental Safety and Health (ES&H) and Radiological Operations
Field Procurement

c. SCOPE OF WORK:

Field Operations provides the following support to site projects:

Quality Control Operations - Provides quality engineering, quality control oversight, and inspections and assessments of Fluor Fernald and contractor programs, work plans, procedures, and processes.

ES&H and Rad Operations - Provides support to line management in the implementation of safety and health requirements identified by the ESH&Q Program by providing site projects with safety and radiological engineers, industrial hygienists, and field technicians.

Field Procurement - Provides procurement, acquisitions, and contract administration services to site projects.

Project Manager	Control Account Manager	Control Team Manager
L D Hampshire	R Nichols	Rodney Whitaker

WORK SCOPE DEFINITION
(Control Account)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	05/01/2001	Page 2

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.A.C	FIELD OPERATIONS	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L HAMPSHIRE	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW PER CP# FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ONE LINE)	
AFLD	FIELD OPERATIONS	

14. ELEMENT TASK DESCRIPTION

d. WORK SPECIFICALLY EXCLUDED:

WBS DICTIONARY
CONTROL ACCOUNT/CHARGE NUMBER

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.A.C	FIELD OPERATIONS	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
AFLD1	QUALITY CONTROL OPERATIONS	

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Subcontractor
Materials
OCD's

b. TECHNICAL CONTENT:

- The Quality Control (QC) Operations department provides independent Quality Engineering, QC oversight, inspections and assessments of Fluor Fernald and contractor programs, work plans, procedures, and processes. The QC program supports the site by incorporating and verifying the quality of processes that ensures compliance with applicable requirements through proactive involvement with the customers and stakeholders.

- The Quality Control organization is divided into two entities for budgeting purposes. Quality Control Administration and Management (which includes the QC Operations Department Manager, his direct reports, and the Project Technical Support section) is budgeted under this charge number. Quality Control personnel assigned to the projects will be budgeted by their respective projects.

c. SCOPE OF WORK:

This scope includes the following QC Management and Administration functions and activities:

- Quality operations direction to the Projects
- Provide NCR (approximately 150) and CTS (approximately 140) tracking and data

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.A.C	FIELD OPERATIONS	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
AFLD1	QUALITY CONTROL OPERATIONS	

14. ELEMENT TASK DESCRIPTION

entry
- Support project procurement activities (review and approve 35 vendors and 2,500 requisitions yearly)
- Provide QC budgets, staffing and personnel management (50 QC professionals)
- Maintain QC letter files and QC document coordination (approximately 5,000 records)
- Develop and provide to project management Quality performance data quarterly for use in facilitating compliance and performance improvements
- Provide oversight and support to QC personnel who are matrixed to the projects
- Coordinate QC review and comment on project procedures (approximately 10/week)
- Develop and maintain all department procedures (15 currently) related to QC.
- Quality System and support through closure and development of quality process concerns (approximately 20 concerns annually)
- Perform internal quality assessments and coordinate external assessment responses of project activities
- Coordinate/oversight of approximately 500 surveillances and 2000 inspections of project areas, work processes and procedures per Fiscal Year (includes research, performance, reporting, corrective action follow-up and audit closeout)
- Develop and administer the independent assessment program and maintain data base (issue quarterly report) through closure
- Coordinate external assessment responses and independently verify corrective actions and external commitments for project related activities (about 70 per year)
- Provide quarterly project performance indicators
- Conduct self-assessments of QC Operations (approximately 5 per year)
- Conduct management assessments of QC Operations (about 8 per year)
- Coordinate external assessment responses for project related activities.

d. WORK SPECIFICALLY EXCLUDED:

- Programmatic QA activities
- QC items budgeted by the projects (such as 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.A.C	FIELD OPERATIONS	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
AFLD1	QUALITY CONTROL OPERATIONS	

14. ELEMENT TASK DESCRIPTION

- Implement Title III/Project inspection program (QEPs)
- Perform real-time radioscopy
- Repairs and general maintenance of radioscopy equipment
- Verify unplanned commitments from external assessments for projects.
- Perform vendor/supplier/lab audits
- Coordinate & conduct receiving inspections
- Support project procurement activities (e.g. requisition review)
- Work order/task order review
- Computer purchases and upgrades
- Fluor Fernald General and Administrative Budget

SECTION 1

1.0 NARRATIVE

1. PROJECT TITLE: FACILITY AND PROJECT SUPPORT	2. DATE: 09/10/01	3. PBS#: 01
4. WBS ELEMENT CODE: 1.1.A.C.	5. WBS ELEMENT TITLE: FIELD OPERATIONS	
6. CAM NAME/ PHONE: V. TURNER/S. WENTZEL/F. MARANDA	7. CAM SIGNATURE:	
8. ORIGINAL/ CHANGE SCOPE/ PER CP#:	9. CONTROL ACCOUNT: AFLD	

PART 3: AFLD – FIELD OPERATIONS
Section 1: AFLD1 – Quality Control Operations

1.0 NARRATIVE

1.1 OVERVIEW

The Quality Control (QC) Operations department provides independent Quality Engineering, QC oversight, inspections and assessments of Fluor Fernald and contractor programs, work plans, procedures, and processes. The QC program supports the site by incorporating and verifying the quality of processes that ensures compliance with applicable requirements through proactive involvement with the customers and stakeholders.

The Quality Control organization is divided into two entities for budgeting purposes. Quality Control Administration and Management (which includes the QC Operations Department Manager, his direct reports, and the Project Technical Support section) is budgeted through its own charge account and will include those functions listed in Sections 1.4.1 through 1.4.3 of this narrative. Quality Control personnel assigned to the projects will be budgeted by their respective projects and will perform the functions listed in Section 1.4.4 of this narrative.

1.2 ASSUMPTIONS/EXCLUSIONS

1.2.1 Assumptions

- QC Operations will remain a Project department at the FEMP through closure.
- R1-D-053 Project assessments (including surveillances and QEPs) will be performed by QC Project personnel and will be budgeted by the project(s).
- Quality Control personnel assigned to the projects will be budgeted for and funded by their respective projects.
- No additional requirements will be added by DOE or the QA Programmatic Function.
- 10 CFR 830 applies through the end of the closure contract.

R1-D-054

- Radioscopy will be performed by QC personnel assigned to (and budgeted by) the projects. In addition to budgeting for manpower, the projects are also responsible for budgeting repairs and general maintenance of radioscopy equipment.

- FY01-FY05 reduction of nuclear facilities at FEMP.

- No significant changes in NTS, SEG and Envirocare shipment drivers.
- Project schedules will be maintained.

- QA Functional area audit function is maintained as a program element.

- Functional area lead is maintained by QA.

- QA/QC policies and procedures are well established and align with client expectations.

- QC oversight and documentation requirements will decrease as project work diminishes. This conclusion is based upon process knowledge. Manpower planning was based on ~~the percentage of budget decrease per PBS each fiscal year, and on the projected decreases in FTEs per PBS each~~ projects of project activities through closure, as provided by Project Managers, and on projected decreased in FTEs per PBS each fiscal year sitewide.

R1-D-139

R1-D-050

- ~~QA/QC functions for major projects will be performed by subcontractors and not self performed.~~

R1-D-058

- Manpower calculations are based on the following four possible sources: Historical Data (HD), Industry Standard (IS), Composite of HD & IS (Comp), and Professional Judgement (PJ). See Quantification Table following Section 1.4.4 for calculations by work scope activity/sub activity

R1-D-035

R1-F01-002

- Other Direct Costs (ODCs) are based on FY00 actual cost of work performed and budgeted manpower (FTEs). ~~as follows: ODC$s/FTEs. Minimum of $100/FTE will be used if FY00 calculations are < $100/FTE.~~ See Section 1.4.1)3 for quotient, by work scope function

R1-D-048

- ~~Premium~~ Overtime is based on FY00 actual cost of work performed overtime hours (OT) and regular (Reg) hours, as follows: OT/Reg. See Section 1.4.1)2 for quotient, by work scope function

R1-D-051

- ~~Material rates are broken down into two parts: 1-General Materials and 2-Additional Materials.~~ General Materials are based on data supplied by Estimating Services. ~~Additional Materials are based on FY00 ACWP data.~~ See Section 1.4 for materials rates.

- Subcontractor dollars are based on existing subcontracts at time of this baseline and anticipated new subcontracts not currently in place
- Dollar amounts are unescalated
- All calculations for manpower, subcontracts, materials, and ODCs are based on a 12-month year for 2002, 2003, 2004, 2005, 2006, 2007, 2008, and 2009

R1-F01-001

- All overtime is planned overtime
- Assume that all work activities are based on a 40-hour workweek
- The basis of this estimate assumes the use of Remediation Schedule, and Execution 6 Scenario
- Sales Tax @ 6% for all taxable items
- Estimate is expressed in FY01 dollars
- Estimate represents budget for the length of this charge number

1.2.2 Exclusions

- Programmatic QA activities
- QC items budgeted by the projects
- Implement Title III/Project inspection program (QEPs)
- Perform real-time radioscopy
- Verify unplanned commitments from external assessments for projects.
- Perform vendor/supplier/lab audits
- Coordinate and conduct receiving inspections
- Support project procurement activities (e.g. requisition review)
- Work order/task order review

R1-F01-001

- Computer purchases and upgrades
- Does not include Fluor Fernald General Administrative Cost

1.2.3 Government-Furnished Equipment/Services

None

1.3 DRIVERS

- Site closure schedule
- Continuous work
- Aquifer restoration through closure
- Facility shutdown through closure

- Silos through FY07
- Initial work
- Waste pits through FY05
- Nuclear materials through FY05Waste management through FY06
- Mixed waste through FY03
- Out year work
- Soils excavation FY03 through FY10
- OSDF FY06 through FY10
- D&D FY03 through FY06
- QA/QC will be contractually required through site closure - Contract No. DE-AC24-010H20115 (Contract) awarded 11/20/00
- 10 CFR Park 830
- RM-0012
- RM-0016

1.4 Scope of work

1.4.1 Plan/Scope

- QC Management and Administration – This function will include the QC Operations Manager, one ~~Administrative Support person~~clerk, ~~six~~ five QC Section Managers, and the Project Technical Support group which includes ~~nine~~ seven QC personnel. ~~As stated in paragraph 1.2.11, this group will also decrease based upon the percentage of decrease in project work and FTEs. The manpower planning sheet reflects these numbers and is adjusted accordingly.~~ The scope of work for this function is listed below.

R1-D-057

- Quality operations direction to the Projects through closure - Contract; 10 CFR Part 830 Nuclear Safety Management, Subpart A Quality Assurance Requirements (830 Rule) 01/10/01, Criterion 1

- Provide NCR (approximately 150) and CTS (approximately 140) tracking and data entry - 830 Rule

- Support project procurement activities (review and approve 35 vendors and 2,500 requisitions yearly) - 830 Rule

- Provide QC budgets, staffing and personnel management (50 QC professionals) - RM-0016 Management Plan Rev. 4

- Maintain QC letter files and QC document coordination (approximately 5,000 records) - MS-0008 Rev2 5/7/99 Filing and Maintenance of Records; RM-0012 Quality Assurance Program Rev. 5 (RM-0012) 05/01/2000; 830 Rule Criterion 4

- Develop and provide to project management Quality performance data quarterly for use in facilitating compliance and performance improvements. - 830 Rule

- Provide oversight and support to QC personnel who are matrixed to the projects - Nevada Test Site Waste Acceptance Criteria (NTSWAC) Rev. 3, 12/2000; 830 Rule; Integrated Safety Management (ISM); RM-0016;

- Coordinate QC review and comment on project procedures (approximately 10/week). - 830 Rule Criterion 4

- Develop and maintain all department procedures (15 currently) related to QC. – 830 Rule Criterion 4

- Quality System and support through closure and development of quality process concerns (approximately 20 concerns annually). - 830 Rule

- Perform internal quality assessments and coordinate external assessment responses of project activities

- Coordinate/oversight of approximately 500 surveillances and 2000 inspections of project areas, work processes and procedures per Fiscal Year (includes research, performance, reporting, corrective action follow-up and audit closeout). - 830 Rule; RM-0012

- Develop and administer the independent assessment program and maintain data base (issue quarterly report) through closure. -830 Rule

- Coordinate external assessment responses and independently verify corrective actions and external commitments for project related activities (about 70 per year). - Contract; 830 Rule

- Provide quarterly project performance indicators. - 830 Rule; ISM

- Conduct self-assessments of QC Operations (approximately 5 per year). - 830 Rule

- Conduct management assessments of QC Operations (about 8 per year). - 830 Rule

R1-D-055

- Coordinate external assessment responses for project-related activities

R1-D-048

1.4.2 Quantification/~~Premium~~ Overtime

Refer to Quantification Table

No Planned Overtime

1.4.3 ODCs

Same ODC rates for AFLD3 (ES&H and Rad Operations) used for this account

ODC 600:
None

ODC 700:
$595/FTE

ODC Travel:
$882/FTE

1.4.4 Subcontracts/Materials

R1-F01-006

Subcontracts ~~NONE~~

	FY02	FY04	FY06	FY08
Calibration Subcontractor	$300	$300	$300	$300

R1-D-052

Materials:

General Materials: $594/FTE

Additional Materials:

Materials/FTE NONE
Materials/Year NONE

QUANTIFICATION TABLE
QC Operations Department
Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Driver(s)	Activity	Sub-Activity	Type	Calculations
QC Mgmt/Admin				
10 CFR 830, Subpart A, "QA Requirements"	Quality Control Operations Department management and direction to the Projects through closure **[1 QC Ops Manager]**	Budgets/Cost Analysis	PJ	100 hr./year
		Staffing (Interviews, etc.)		**10 hr./year**
		Performance planning		3 hr./employee x 56 =168 hr.
		Performance reviews		2 hr./employee x 56 = 112 hr.
		Salary planning		4 hr./employee x 56 = 224 hr.
		Employee Oversight		900 hr./year
		Employee counseling		52 hr./direct rpt. x 6 =312
				1826 hr. (1.04 FTE)
10 CFR 830, Subpart A, "QA Requirements"	Provide NCR (approx. 580) and CTS (approx. 300) tracking and data entry **[0.5 QA Engineer; 0.5 Tech. Support personnel]**	Review of source document(s)	HD & PJ	25 min./item = 367 hr. annually
		Initial entry of NCR/CTS item	HD & PJ	15 min./item = 220 hr. annually
		Periodic status updates	HD & PJ	15 min./item = 220 hr. annually
		Follow-up/reminders to responsible parties	HD & PJ	20 min./item = 293 hr. annually
		Entry of closure data	HD & PJ	20 min./item = 293 hr. annually
		Closure document review	HD & PJ	25 min./item = 367 hr. annually
		Scanning of closure documentation	HD & PJ	20 min./item = 293 hr. annually
		Status reports to Management	HD & PJ	2 hr./weekly = 104 hr. annually
				2157 hr. (1.2 FTE)
10 CFR 830, Subpart A, "QA Requirements"	Support Project procurement activities **[1 QA Engineers]**	Review and approve 35 vendors	HD & PJ	Prep. – 2 hr./review Perf. – 3 hr./review Rpt. – 2 hr./review = 245 hr.
		Maintain Evaluated Vendor List	HD & PJ	2 hr./FY Qtr. = 8 hr.
		Review and approve 2500 purchase requisitions	HD & PJ	30 min./requisition = 1250 hr.
		~~Perform QA reviews (surveillances) of purchase requisitions to ensure accuracy (20 per year)~~	HD & PJ	~~Prep. – 3 hr./inspection Perf. – 8 hr./inspection Rpt. – 2 hr./review = 260 hr.~~
				1763 hr. (1 FTE)

R1-F01-007

RM-0016, "Management Plan"	Provide QC budgets, staffing and personnel management for 50 QC professionals **[6 QC Section Managers]**	Employee counseling	HD & PJ	52 hr./employee x 50 = 2600 hr.
QC Mgmt/Admin				
		Assist in budgeting		10 hr./year x 6 Mgr. = 60 hr.
		Staffing (Interviews, etc.)	HD & PJ	10 hr./year x 6 Mgr. = 60 hr.
		Performance planning	HD & PJ	3 hr./employee x 50 = 150 hr.
		Performance reviews	HD & PJ	2 hr./employee x 50 = 100 hr.
		Salary planning	HD & PJ	4 hr./employee x 50 = 200 hr.
		Employee oversight	HD & PJ	900 hr./year x 6 Mgr. = 5400 hr.
				8570 hr. (4.76 FTE)
Maintain and coordinate QC documents (approx. 5000 documents) **[1 QA Engineer; 0.5 Tech. Support person; 0.06 Admin. Support person]**	QC letter files		HD & PJ	120 hr./year
		Active Records mgmt.	HD & PJ	File initiation = 30 min./item x 800 = 400 hr. File Maint. = 1 hr./file = 800 hr.
		Archiving	HD & PJ	NCR Admin.: ARIDS = 4 hr./day x 231 days = 924 hr. Shipment prep = 27 hr./month = 324 hr.

			CTS Admin.: ARIDS – 2 hr./day x 231 days = 462 hr. Shipment prep – 20 hr./month = 240 hr.
			3270 hr. (1.82 FTE)
Develop and provide to project management quarterly Quality performance data for use in facilitating compliance and performance improvements [0.27 QA Engineer]		HD & PJ	
			480 hr. (0.27 FTE)
QC Mgmt/Admin			
Maintain NDE Inspector qualifications/certifications, and maintain discipline inspector qualifications/certifications [0.03 QA Engineer]		HD & PJ	
			60 hr. (0.03 FTE)
Coordinate QC review and comment on project procedures (approx. 10 per week) [0.1 QA Engineer]		HD & PJ	
			200 hr. (0.1 FTE)
Develop and maintain all QC Department procedures (15 currently) [0.05 QA Engineer]		HD & PJ	
			100 hr. (0.05 FTE)
Support projects in developing and closing corrective actions in response to process concerns (approx. 20 annually) [0.1 QA Engineer]		HD & PJ	
			200 hr. (0.1 FTE)
Coordination/oversight of approx. 500 surveillances and 2000 inspections per fiscal year	Planning/coordination with Project Managers	HD & PJ	10 hr./year per Project (8) = 80

[0.75 QA Engineer]			hr.
	QC Mgmt. review	HD & PJ	30 min./assessment = 1250 hr.
			1330 hr. (0.74 FTE)
Develop and administer the independent assessment program and maintain the Integrated Assessment Database [1.6 QA Engineers; 1 Admin Support]	Maintain Integrated Assessment Database	HD & PJ	80 hr./month = 960 hr.
	Issue Sitewide Integrated Assessment Schedule	HD & PJ	160 hr.
	Maintain assessment files	HD & PJ	File initiation = 30 min./item x 2500 = 1250 hr. File Maint. = 30 min./file = 1250 hr.
	Review/approve assessment files	HD & PJ	15 min/file x 2500 = 625 hr.
	Scanning of assessments	HD & PJ	10 min/file x 2500 = 417 hr.
			4662 hr. (2.59 FTE)
QC Mgmt/Admin			
Coordinate external assessment responses and independently verify corrective actions and external commitments for project related activities (about 70 per year). [0.4 QA Engineer]		HD & PJ	Coordinate response = 2 hr./item x 70 = 140 hr. Verification = 9 hr. x 70 = 630 hr.
			770 hr. (0.4 FTE)
Provide quarterly project performance indicators. [0.1 QA Engineer]		HD & PJ	
			150 hr. (0.1 FTE)
Conduct self-assessments of QC Operations (approximately 5 per year). [0.06 QA Engineer]		HD & PJ	Prep = 4 hr./ass.mt = 20 hr./year

			Perf. = 8 hr./ass'mt = 40 hr./year Rpt. = 8 hr./ass'mt = 40 hr./year
			100 hr. (0.06 FTE)
Conduct management assessments of QC Operations (about 8 per year). [0.1 QA Engineer]		HD & PJ	Prep. = 4 hr./ass'mt = 32 hr./year Perf. = 8 hr./ass'mt = 64 hr./year Rpt. = 8 hr./ass'mt = 64 hr./year
			160 hr. (0.1 FTE)

Manpower Total QC Hours/Year = 26,421 = 15.0 FTE

Present QC Management and Administration Staff = 15.5 FTE

SECTION 1

2.0 MANPOWER PLANS

Manpower Planning Sheet (CR2)

MPS # 1AC01 QUALITY CONTROL OPERATIONS

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
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
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				

QA/QC	QA/QC	QA Engineer	76.00	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
QA/QC	QA/QC	QA Manager	174.00	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	4	4	4	4
QA/QC	Administration	Clerks	108.00	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Project Management	Tech/Program Support Rep.	36.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Information Management	Information Records Rep.	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
		Sheet Totals:	414.00	16.00	16.00	15.00	15.00	14.00	14.00	14.00	14.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	10.00	10.00	10.00	10.00

Manpower Planning Sheet (CR2)

MPS # 1AC01 QUALITY CONTROL OPERATIONS

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																		
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							
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																				
QA/QC	QA Engineer		2	2	2	2	2	2	2	2	2	2	2	2	0	0	0	0	0	0	0	0
QA/QC	QA Manager		4	4	4	4	3	3	3	3	2	2	2	2	0	0	0	0	0	0	0	0
Administration	Clerks		3	3	3	3	2	2	2	2	2	2	2	2	0	0	0	0	0	0	0	0
Project Management	Tech/Program Support Rep.		1	1	1	1	1	1	1	1	1	1	1	1	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
		Sheet Totals:	10.00	10.00	10.00	10.00	8.00	8.00	8.00	8.00	7.00	7.00	7.00	7.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

SECTION 1

3.0 ESTIMATE

AFLD1

QUALITY CONTROL OPERATIONS

09/07/2001
12:13 PM

PBS: 01
WBS: 1.1.A.C
CTRL ACCT: AFLD
CHARGE NO: AFLD1
COMMENT NO: F01-031

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
**** STATED IN FY01 DOLLARS ****
(1 FTE EQUALS 1747 HOURS)

DATE: 13 MAY 2001
PROJECT MGR: R. NICHOLS
CAM: R. NICHOLS
PREPARED BY: L. HAMPSHIRE
ALL FISCAL YEARS

Resource: CLERKS **CLERKS** **EOC:** LABOR
Res Dept: **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	6,988.0	5,241.0	5,241.0	5,241.0	5,241.0	5,241.0	3,494.0	3,494.0	0.0
Cum Hours:	5,808.0	12,796.0	18,037.0	23,278.0	28,519.0	33,760.0	39,001.0	42,495.0	45,989.0	45,989.0
Yr Total Cost:	138,753	175,721	139,593	147,823	156,586	167,295	181,361	127,438	141,619	0
Cum Total Cost:	138,753	314,474	454,067	601,891	758,477	925,772	1,107,134	1,234,571	1,376,190	1,376,190

Resource: INRREP **INFO RECORDS REP** **EOC:** LABOR
Res Dept: **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	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:	43,095	54,577	57,808	61,217	64,846	0	0	0	0	0
Cum Total Cost:	43,095	97,673	155,481	216,698	281,543	281,543	281,543	281,543	281,543	281,543

Resource: MAT300 **MATERIAL OBJCLASS300** **EOC:** MATERIAL
Res Dept: 950 **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:	7,623.0	8,910.0	8,304.9	8,338.1	8,304.9	2,970.0	2,970.0	4,752.0	4,158.0	0.0
Cum Units:	7,623.0	16,533.0	24,837.9	33,176.1	41,481.0	44,451.0	47,421.0	52,173.0	56,331.0	56,331.0
Yr Total Cost:	7,623	9,151	8,759	9,041	9,257	3,406	3,505	5,771	5,196	0
Cum Total Cost:	7,623	16,774	25,533	34,574	43,831	47,237	50,742	56,513	61,709	61,709

Resource: ODC700 **ODC 700** **EOC:** ODC
Res Dept: 950 **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

INCLUDES ESCALATION COSTS

Yr Units:	7,636.0	8,925.0	8,318.9	8,352.2	8,318.9	2,975.0	2,975.0	4,760.0	4,165.0	0.0
Cum Units:	7,636.0	16,561.0	24,879.9	33,232.1	41,551.0	44,526.0	47,501.0	52,261.0	56,426.0	56,426.0
Yr Total Cost:	7,636	9,166	8,774	9,056	9,272	3,412	3,511	5,781	5,205	0
Cum Total Cost:	7,636	16,802	25,576	34,632	43,905	47,317	50,828	56,609	61,813	61,813

Resource: ODCTRVL **TRAVEL RESOURCE** **EOC:** ODC
Res Dept: 950 **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:	11,319.0	13,230.0	12,331.6	12,380.9	12,331.6	4,410.0	4,410.0	7,056.0	6,174.0	0.0
Cum Units:	11,319.0	24,549.0	36,880.6	49,261.4	61,593.0	66,003.0	70,413.0	77,469.0	83,643.0	83,643.0
Yr Total Cost:	11,319	13,587	13,006	13,424	13,745	5,058	5,205	8,569	7,715	0
Cum Total Cost:	11,319	24,906	37,913	51,337	65,082	70,140	75,345	83,914	91,629	91,629

Resource: QACENG **QA ENGINEER** **EOC:** LABOR
Res Dept: **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	3,494.0	3,494.0	3,494.0	3,494.0	3,494.0	3,494.0	3,494.0	3,494.0	0.0
Cum Hours:	4,356.0	7,850.0	11,344.0	14,838.0	18,332.0	21,826.0	25,320.0	28,814.0	32,308.0	32,308.0
Yr Total Cost:	200,202	169,028	179,034	189,590	200,829	214,564	232,604	245,167	272,449	0
Cum Total Cost:	200,202	369,230	548,264	737,854	938,683	1,153,246	1,385,851	1,631,018	1,903,467	1,903,467

Resource: QACMGR **QA MANAGER** **EOC:** LABOR
Res Dept: **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:	9,281.0	10,482.0	10,482.0	10,482.0	10,482.0	6,988.0	6,988.0	5,241.0	3,494.0	0.0
Cum Hours:	9,281.0	19,763.0	30,245.0	40,727.0	51,209.0	58,197.0	65,185.0	70,426.0	73,920.0	73,920.0
Yr Total Cost:	499,503	593,804	628,957	666,040	705,523	502,516	544,767	430,643	319,043	0
Cum Total Cost:	499,503	1,093,307	1,722,264	2,388,305	3,093,828	3,596,344	4,141,111	4,571,754	4,890,797	4,890,797

Resource: SERVSUB **SUBS** **EOC:** SUBCONTRACTORS
Res Dept: 950 **Overtime:** CALB **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	300.0	0.0	300.0	0.0	300.0	0.0	300.0	0.0	0.0
Cum Units:	0.0	300.0	300.0	600.0	600.0	900.0	900.0	1,200.0	1,200.0	1,200.0

INCLUDES ESCALATION COSTS

09/07/2001
12:13 PM

Yr Total Cost:	0	308	0	325	0	344	0	364	0	0
Cum Total Cost:	0	308	308	633	633	977	977	1,342	1,342	1,342

Resource: TPSREP **TECH/PROG SUPT REP** **EOC:** LABOR
Res Dept: **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	1,747.0	1,747.0	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	13,681.0	15,428.0	15,428.0
Yr Total Cost:	75,446	95,547	101,203	107,170	113,523	121,287	131,485	138,587	154,009	0
Cum Total Cost:	75,446	170,993	272,196	379,367	492,890	614,177	745,663	884,249	1,038,258	1,038,258

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:	22,349.0	24,458.0	22,711.0	22,711.0	22,711.0	17,470.0	17,470.0	13,976.0	12,229.0	0.0
Cum Hours:	22,349.0	46,807.0	69,518.0	92,229.0	114,940.0	132,410.0	149,880.0	163,856.0	176,085.0	176,085.0
Yr Total Cost:	983,578	1,120,889	1,137,136	1,203,687	1,273,582	1,017,883	1,102,439	962,319	905,236	0
Cum Total Cost:	983,578	2,104,467	3,241,602	4,445,289	5,718,871	6,736,754	7,839,193	8,801,512	9,706,748	9,706,748

CAM R Nichols CONTROL TEAM Rodney Whitaker

INCLUDES ESCALATION COSTS

SECTION 1

4.0 RISK PLAN

Risk/Opportunity Identification and Analysis Form

Project: Facility Project Support		PBS Number: 01			Total Baseline Dollars (Minimum Case):			$30,602,849		
Evaluator: Robert Hammac	Date: 4/30/01	WBS Number: 1.1.A.C								
CAM: Bob Nichols	Date: 4/30/01	Control Account Number: AFLD								
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
Support Equipment	Replace equipment earlier than planned	Additional equipment procurements	Internal	$10,000,000	3	30	2	$3,000,000	3	Accept
Safety	Serious incident in Facilities Projects shut down operation	One year delay	Internal	$3,900,000	3	10	2	$390,000	3	Reduce/Mitigate
Overhead	Critical path projects (Silos) slips 1 year	One year delay	Internal	$3,900,000	4	5	3	$195,000	5	Reduce/Mitigate
			Total:	$17,800,000			Total:	$3,585,000		
Public Use Amenities	FCAB makes recommendations outside current plan	Changes in the facilities plans and lease costs	External	$10,000,000	3	70	4	$7,000,000	5	

WBS DICTIONARY
CONTROL ACCOUNT/CHARGE NUMBER

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.A.C	FIELD OPERATIONS	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
AFLD3	ES&H AND RAD OPERATIONS	

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Subcontractor
Materials
OCD's

b. TECHNICAL CONTENT:

- The Maintenance and Infrastructure Services (M&IS) Project Environmental, Safety and Health and Radiological Control Operations account provides for the management and support functions for Safety, Industrial Hygiene and Radiological field operations site-wide. The Operations Environmental, Safety and Health and Radiological Control organization manages resources consisting of safety engineers, radiological engineers, radiological control technicians, radiological control technician supervisor, safety technicians, and industrial hygiene technicians that are matrixed or projectized.

- The group's primary responsibility is to ensure a safe and healthful working environment for employees, compliance with DOE, Federal (OSHA), state and local health and safety requirements and the implementation of Fluor Fernald procedural requirements. This group supports management practices that: integrate process and operational safety information; hazard and operability studies; health and safety plan development; safety integration into operating procedures; employment of safe work practices; assures mechanical integrity and safe operation of equipment; support of start up and operating safety reviews; emergency planning; investigation of incidents and abnormal conditions; assures administrative compliance including training of matrixed and projectized personnel and the performance of critical self assessment.

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.A.C	FIELD OPERATIONS	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
AFLD3	ES&H AND RAD OPERATIONS	

14. ELEMENT TASK DESCRIPTION

c. SCOPE OF WORK:

The ES&H and Rad operations scope of work consists of the following functions and activities:

- Assure trained and qualified safety and radiological support personnel are available to support project activities.
- Act as the liaison between the projects and Safety Analysis / Criticality Safety, Fire Protection Engineering and Emergency Services.
- Manage site Safety and Radiological Control resources, assuring maximum efficiency.
- Implement requirements for projects to follow to assure standardization and compliance with the site safety & health and Radiological Control programs requirements.
- Provide technical direction for ES&H and Radiological Control personnel.
- Assist projects in the development of safety & health and radiological performance indicators; assist in the interpretation of data and the preparation of reports; coordinate information with programmatic staff.
- Maintain required S&H and Rad Control Required Reading programs.
- Assure safety work groups are established and maintained.
- Ensure performance of project safety and radiological management self assessments; participate as necessary.
- Provide technical expertise to programmatic organizations as needed.
- Participate in project procedure/task order/work permit development.
- Review program level procedures, documents, and directives for technical accuracy and feasibility of successful project implementation.
- Support of Wise Services will continue on a graded approach; various degrees of support will be needed based on the scope of the assigned task.
- Respond to internal/external audits/surveillances.
- Provide Site Manager and Technical Representative for Radiological Control Technician subcontractor.
- Maintain Rad Con Operator Aid program.
- Administrative tasks including records management, correspondence, and presentation preparation.

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.A.C	FIELD OPERATIONS	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
AFLD3	ES&H AND RAD OPERATIONS	

14. ELEMENT TASK DESCRIPTION

d. WORK SPECIFICALLY EXCLUDED:

- Matrixed or projectized resources including the following: safety engineers (includes industrial hygienist & fire protection engineer), radiological engineers, radiological control technicians, radiological control technician supervisor, safety technicians and industrial hygiene technicians that are assigned to projects.
- Health and safety personnel in transition between project and/or program assignments.
- Purchase or calibration of safety or radiological control equipment to support the projects.
- Computer purchases and upgrades.
- Fluor Fernald General and Administrative Budget.

SECTION 2

1.0 NARRATIVE

1. PROJECT TITLE: FACILITY AND PROJECT SUPPORT	2. DATE: 09/10/01	3. PBS#: 01
4. WBS ELEMENT CODE: 1.1.A.C.	5. WBS ELEMENT TITLE: FIELD OPERATIONS	
6. CAM NAME/ PHONE: V. TURNER/S. WENTZEL/F. MARANDA	7. CAM SIGNATURE:	
8. ORIGINAL/ CHANGE SCOPE/ PER CP#:	9. CONTROL ACCOUNT: AFLD	

PART 3: AFLD – FIELD OPERATIONS
Section 2: AFLD3 – ES&H and Radiological Operations

1.0 NARRATIVE

1.1 OVERVIEW

The Maintenance and Infrastructure Services (M&IS) Project Environmental, Safety and Health and Radiological Control Operations account provides for the management and support functions for Safety, Industrial Hygiene and Radiological field operations site-wide. The Operations Environmental, Safety and Health and Radiological Control organization manages resources consisting of safety engineers, radiological engineers, radiological control technicians, radiological control technician supervisor, safety technicians and industrial hygiene technicians that are matrixed or projectized.

R1-F01-008

The group's primary responsibility is to ensure a safe and healthful working environment for employees, compliance with DOE, Federal (OSHA), state and local health and safety requirements and the implementation of Fluor Fernald procedural requirements. This group supports management practices that: - integrate process and operational safety information; hazard and operability studies; health and safety plan development; safety integration into operating procedures; employment of safe work practices; assures mechanical integrity and safe operation of equipment; support of start up and operating safety reviews; emergency planning; investigation of incidents and abnormal conditions; assures administrative compliance including training of matrixed and projectized personnel and the performance of critical self assessment.

1.2 ASSUMPTIONS/EXCLUSIONS

1.2.1 Assumptions

- Cross training between safety and health disciplines will occur allowing for personnel to be multi tasked.
- Outsourcing will be considered a viable option for replacing or supplementing projectized or matrixed staff.

- Site-specific health and safety requirements including Fluor Fernald regulations and compliance with 29CFR1910 & 26, and 10 CFR 835 will be the basis for the safety and health program.

- Health and safety personnel will be actively involved in the work planning and execution process.

- Personnel will maintain specific Task Qualification Program and project specific requirements.

- When a project is completed or shut down for a period of time, safety and health personnel will assigned to a programmatic activity.

- Support of Wise Services will continue on a graded approach; various degrees of support will be needed based on the scope of the assigned task.

- Wise Services safety and health personnel will become qualified to Fluor safety and industrial hygiene technician Task Qualification Program requirements and maintain these qualifications.

- Dedicated Radiological, Safety & Health oversight of work activities will continue for work performed by Fluor Fernald and its subcontractors.

R1-D-035

- Manpower calculations are based on the following four possible sources: Historical Data (HD), Industry Standard (IS), Composite of HD & IS (Comp), and Professional Judgement (PJ). See Quantification Table following Section 1.4.4 for calculations by work scope activity/sub activity

R1-F01-002

- Other Direct Costs (ODCs) are based on FY00 actual cost of work performed and budgeted manpower (FTEs)~~., as follows: ODC$s/FTEs. Minimum of $100/FTE will be used if FY00 calculations are <$100/FTE.~~ See Section 1.4.1)2 for quotient, by work scope function

R1-D-048

- ~~Premium~~ Overtime is based on FY00 actual cost of work performed overtime hours (OT) and regular (Reg) hours, as follows: OT/Reg.

- Material rates are broken down into two parts: 1) General Material, and 2) Additional Materials. General materials are based on data supplied by Estimating Services. Additional materials are based on FY00ACWP data. See Section 1.4 for material rates.

- Subcontractor dollars are based on existing subcontracts at time of this baseline and anticipated new subcontracts not currently in place

R1-F01-001

- Dollar amounts are unescalated

- All calculations for manpower, subcontracts, materials, and ODCs are based on a 12-month year for 2002, 2003, 2004, 2005, 2006, 2007, 2008, and 2009
- All overtime is planned overtime
- Assume that all work activities are based on a 40-hour workweek
- The basis of this estimate assumes the use of Remediation Schedule, and Execution 6 Scenario
- Sales Tax @ 6% for all taxable items
- Estimate is expressed in FY01 dollars
- Estimate represents budget for the length of this charge number

1.2.2 Exclusions

- This scope of work does not include: scope for matrixed or projectized resources including the following: safety engineers (includes industrial hygienist and fire protection engineer), radiological engineers, radiological control technicians, radiological control technician supervisor, safety technicians and industrial hygiene technicians that are assigned to projects. R1-F01-008

- This scope of work does not include: scope and budget for health and safety personnel in transition between project and/or program assignments. R1-F01-009

- This scope of work does not include cost of purchase or calibration of safety or radiological control equipment to support the projects R1-F01-001
- Computer purchases and upgrades
- Does not include Fluor Fernald General Administrative Cost

1.2.3 Government-Furnished Equipment/Services

None

1.3 DRIVERS

1.3.1 Administrative

- DOE Order 231.1 Environmental, Safety & Health Reporting

- DOE Order 440.1A Worker Protection Management
- DOE Policy 450.4 Environmental, Safety, and Health Policy for the DOE Complex
- 10 CFR 830 Nuclear Safety Management
- 10 CFR 835 Occupational Radiation Protection
- 29 CFR 1904 Occupational Safety & Health Recording and Reporting of Occupational Injury and Illness
- 29 CFR 1910 Occupational Safety & Health for General Industry
- 29 CFR 1926 Occupational Safety & Health for Construction

1.3.2 Physical

- OU1 Complex D&D
- Plant 6/East Warehouse D&D
- Plant 1 Phase II D&D
- Admin Complex D&D
- Electrical Station D&D
- Silos 1-4, Superstructure, and RTS D&D
- OU3 other D&D
- Plant 5 D&D
- Maintenance Tank Farm D&D
- Multi Complex D&D
- Lab/Pilot Plant D&D
- Stand Alone D&D Components
- Mixed Waste Projects
- Low Level Waste Projects
- OSDF Project
- Aquifer/AWWT Project
- Environmental Monitoring
- ARASA Operations
- WPRAP Project Management
- Natural Resources Restoration
- Soil Remediation
- Stock Piles
- Silos Projects
- Waste Management

1.4 SCOPE OF WORK

1.4.1 Field Operations/ES&H and Rad

1.4.1)1 Plan/Scope

- Assure trained and qualified safety and radiological support personnel are available to support project activities.
- Act as the liaison between the projects and Safety Analysis/Criticality Safety, Fire Protection Engineering and Emergency Services.
- Manage site Safety and Radiological Control resources, assuring maximum efficiency.
- Implement requirements for projects to follow to assure standardization and compliance with the site safety & health and Radiological Control programs requirements.
- Provide technical direction for ES&H and Radiological Control personnel.
- Assist projects in the development of safety & health and radiological performance indicators; assist in the interpretation of data and the preparation of reports; coordinate information with programmatic staff.
- Maintain required S&H and Rad Control Required Reading programs.
- Assure safety work groups are established and maintained.
- Ensure performance of project safety and radiological management self-assessments; participate as necessary.
- Provide technical expertise to programmatic organizations as needed.
- Participate in project procedure/task order/work permit development.
- Review program level procedures, documents, and directives for technical accuracy and feasibility of successful project implementation.

R1-D-032

- Respond to internal/external audits/surveillances.
- Respond to emerging issues.

- Provide Site Manager and Technical Representative for Radiological Control Technician subcontractor.

- Maintain Rad Con Operator Aid program.
- Participate in required meetings.

R1-D-032

- Administrative tasks including records management, correspondence, presentation preparation.

R1-D-048

1.4.1)2 Quantification/~~Premium~~ Overtime

See Quantification Table

R1-D-048

~~Old Charge Number 6GAAA.0156 X REGULAR HOURS~~

1.4.1)3 ODC's

ODC 600: None

ODC 700:
Old Chare # 6GAAA - $595/FTE

ODC Travel:
Old Charge Number 6GAAA - $882/FTE

1.4.1)4 Subcontracts/Materials

Subcontracts SEC CORP - $125,000 in FY01 & $150,000 in FY02

Materials:

General Materials: $594/FTE

Additional Materials:

Materials/FTE $2,900/FTE (Publications, Periodicals, Excess Office Supplies)
Materials/Year NONE

ES&H and Radiological Operations Quantification Table Historical Data = (HD); Industry Standard = (IS); Composite of HD & IS = (Comp); Professional Judgement = (PJ)			
Activity	**Sub-Activity**	**Calc Type**	**Calculations**
Provide trained and qualified ES & H & Rad personnel to support project activities.		HD	.015 S&H Mgr, .015 Rad Mgr
Liaison between projects and programmatic depts. (SA/Criticality Safety, Fire Prot. Engineering, and Emergency Services		PJ	.03 S&H Mgr, .03 Rad Mgr
Manage site Safety and Radiological Control resources, assuring maximum efficiency		HD	.24 S&H Mgr, .24 Rad Mgr
Implement requirements for projects to follow to assure standardization and compliance with site S&H & Radiological Control Program requirements; provide technical direction to S&H & Rad personnel		PJ	.06 S&H Mgr, .06 Rad Mgr
Assist projects in development of S&H & Rad performance indicators; assist in interpretation of data and preparation of reports		HD	.035 S&H Mgr, .035 Rad Mgr, .14 Clerk .2 HP .2 IH .2 Safety Eng
Maintain S&H & Rad Control Required Reading Programs		HD	.31~~12~~ Clerk
Assure Safety Work Groups are established and maintained for personnel not assigned to projects.		HD	.06 S&H Mgr, .06 Rad Mgr
Ensure performance of S&H & Rad self assessments, participate as necessary		PJ	~~0~~.035 S&H Mgr, .035 Rad Mgr
Provide technical expertise to programmatic organizations as needed		PJ	.06 S&H Mgr, .06 Rad Mgr .1 HP .1 IH .1 Safety Eng
Participate in project procedure/task order/work permit/JSA development		HD	0.015 S&H Mgr, .06 Rad Mgr .2 HP .2 IH .2 Safety Eng
Review program level procedures, documents, and directives for technical accuracy and feasibility of successful project implementation		HD	.5 hrs/document x 520 docs/yr = .15 S&H Mgr, .15 Rad Mgr .15 Clerk
Respond to internal/external audits/surveillances		PJ	.035 S&H Mgr, .035 Rad Mgr
Respond to emerging issues		PJ	.15 S&H Mgr, .15 Rad Mgr
Maintain Rad Con Operator Aid Program		PJ	.02~~015~~ Rad Mgr

R1-D-032

R1-D-032

ES&H and Radiological Operations Quantification Table Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)			
Activity	**Sub-Activity**	**Calc Type**	**Calculations**
Provide Site Manager and Technical Representative for site Rad Control Tech subcontract		HD	~~1 HP,~~ .25 Rad Mgr
Participate in required meetings.		HD	.115~~2~~ S&H Mgr
Administrative tasks including records management, correspondence, presentation preparation		HD	1.2~~.6~~ Clerk

R1-F01-003

SECTION 2

2.0 MANPOWER PLANS

Manpower Planning Sheet (CR2)

MPS # 1AC03 ES&H & RAD OPERATIONS

	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
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
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 Supervisor/Manager		29.60	1	1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1	1	1	1
	Environmental Safety & H	Health Physicists		6.50	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	0	0	0	0	0	0	0	0	0	0
	Administration	Clerks		44.30	2	2	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	0.8	1	1	1
	Environmental Safety & H	Safety & Health Mgr.		37.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Environmental Safety & H	Industrial Hygienist		10.00	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	Environmental Safety & H	Safety Engineer		7.60	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0	0	0	0
		Sheet Totals:		135.00	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	4.40	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.00	3.20	3.20	3.20

Manpower Planning Sheet (CR2)

MPS # 1AC03 ES&H & RAD OPERATIONS

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																		
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							
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 Supervisor/Manager		0.5	0.5	0.5	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Health Physicists		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Administration	Clerks		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	0	0	0	0	0	0
Environmental Safety & Health	Safety & Health Mgr.		1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
Environmental Safety & Health	Industrial Hygienist		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	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
		Sheet Totals:	2.40	2.40	2.40	2.40	1.90	1.90	1.90	1.90	1.50	1.50	1.50	1.50	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00

SECTION 2

3.0 ESTIMATE

AFLD3

ES&H & RAD OPERATIONS

09/07/2001
12:14 PM

PBS: 01
WBS: 1.1.A.C
CTRL ACCT: AFLD
CHARGE NO: AFLD3
COMMENT NO:

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
**** STATED IN FY01 DOLLARS ****
(1 FTE EQUALS 1747 HOURS)

DATE: 13 MAY 2001
PROJECT MGR: R. NICHOLS
CAM: R. NICHOLS
PREPARED BY: L. HAMPSHIRE
ALL FISCAL YEARS

Resource: CLERKS **CLERKS** **EOC:** LABOR
Res Dept: **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:	2,727.4	3,144.6	3,144.6	2,271.1	2,271.1	1,668.2	1,222.9	1,222.9	873.5	210.5
Cum Hours:	2,727.4	5,872.0	9,016.6	11,287.7	13,558.8	15,227.0	16,449.9	17,672.8	18,546.3	18,756.8
Yr Total Cost:	65,158	79,075	83,756	64,057	67,854	53,250	42,318	44,603	35,405	8,795
Cum Total Cost:	65,158	144,232	227,988	292,045	359,899	413,148	455,466	500,069	535,474	544,269

Resource: HLTPHY **HEALTH PHYSICIST** **EOC:** LABOR
Res Dept: **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	1,747.0	441.0	421.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	726.0	2,473.0	2,914.0	3,335.0	3,335.0	3,335.0	3,335.0	3,335.0	3,335.0	3,335.0
Yr Total Cost:	32,017	81,094	21,683	21,920	0	0	0	0	0	0
Cum Total Cost:	32,017	113,110	134,793	156,712	156,712	156,712	156,712	156,712	156,712	156,712

Resource: INDHYG **INDUSTRIAL HYGIENIST** **EOC:** LABOR
Res Dept: **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	349.4	349.4	349.4	349.4	349.4	0.0	0.0
Cum Hours:	726.0	1,599.5	2,473.0	2,822.4	3,171.8	3,521.2	3,870.6	4,220.0	4,220.0	4,220.0
Yr Total Cost:	33,701	42,680	45,207	19,149	20,284	21,671	23,493	24,762	0	0
Cum Total Cost:	33,701	76,381	121,587	140,736	161,020	182,691	206,184	230,946	230,946	230,946

Resource: MAT300 **MATERIAL OBJCLASS300** **EOC:** MATERIAL
Res Dept: 950 **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:	12,229.0	20,964.0	18,344.0	14,735.9	13,392.1	11,007.0	8,386.0	6,639.0	5,335.5	1,216.5
Cum Units:	12,229.0	33,193.0	51,537.0	66,272.9	79,665.0	90,672.0	99,058.0	105,697.0	111,032.5	112,249.0

INCLUDES ESCALATION COSTS

Yr Total Cost:	12,229	21,530	19,348	15,978	14,927	12,624	9,897	8,063	6,668	1,564
Cum Total Cost:	12,229	33,759	53,107	69,085	84,012	96,636	106,533	114,596	121,263	122,828

Resource: ODC700 **ODC 700** **EOC:** ODC
Res Dept: 950 **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:	2,083.0	3,570.0	3,124.0	2,513.7	2,276.3	1,874.0	1,428.0	1,131.0	908.8	207.2
Cum Units:	2,083.0	5,653.0	8,777.0	11,290.7	13,567.0	15,441.0	16,869.0	18,000.0	18,908.8	19,116.0
Yr Total Cost:	2,083	3,666	3,295	2,725	2,537	2,149	1,685	1,374	1,136	266
Cum Total Cost:	2,083	5,749	9,044	11,770	14,307	16,456	18,142	19,515	20,651	20,917

Resource: ODCTRVL **TRAVEL RESOURCE** **EOC:** ODC
Res Dept: 950 **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:	3,087.0	5,292.0	4,631.0	3,725.6	3,374.4	2,779.0	2,117.0	1,676.0	1,346.9	307.1
Cum Units:	3,087.0	8,379.0	13,010.0	16,735.6	20,110.0	22,889.0	25,006.0	26,682.0	28,028.9	28,336.0
Yr Total Cost:	3,087	5,435	4,884	4,039	3,761	3,187	2,498	2,035	1,683	395
Cum Total Cost:	3,087	8,522	13,406	17,446	21,207	24,394	26,893	28,928	30,611	31,006

Resource: RADMGR **RAD SUPERVISOR/MGR** **EOC:** LABOR
Res Dept: **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:	1,628.6	2,096.4	2,096.4	2,096.4	2,096.4	1,747.0	873.5	0.0	0.0	0.0
Cum Hours:	1,628.6	3,725.0	5,821.4	7,917.8	10,014.2	11,761.2	12,634.7	12,634.7	12,634.7	12,634.7
Yr Total Cost:	97,407	131,978	139,792	148,034	156,809	139,611	75,675	0	0	0
Cum Total Cost:	97,407	229,385	369,177	517,210	674,019	813,631	889,305	889,305	889,305	889,305

Resource: S&HENG **SAFETY ENGINEER** **EOC:** LABOR
Res Dept: **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	349.4	349.4	0.0	0.0	0.0	0.0	0.0
Cum Hours:	726.0	1,599.5	2,473.0	2,822.4	3,171.8	3,171.8	3,171.8	3,171.8	3,171.8	3,171.8
Yr Total Cost:	36,089	45,705	48,411	20,506	21,722	0	0	0	0	0
Cum Total Cost:	36,089	81,794	130,205	150,711	172,432	172,432	172,432	172,432	172,432	172,432

INCLUDES ESCALATION COSTS

09/07/2001
12:14 PM

Resource: S&HMGR **SAFETY & HEALTH MGR** **EOC:** LABOR
Res Dept: **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	1,747.0	1,747.0	421.0
Cum Hours:	1,452.0	3,199.0	4,946.0	6,693.0	8,440.0	10,187.0	11,934.0	13,681.0	15,428.0	15,849.0
Yr Total Cost:	80,484	101,928	107,962	114,327	121,105	129,387	140,266	147,842	164,294	40,812
Cum Total Cost:	80,484	182,412	290,374	404,702	525,806	655,193	795,459	943,301	1,107,595	1,148,407

Resource: SERVSUB **SUBS** **EOC:** SUBCONTRACTORS
Res Dept: 950 **Overtime:** SEC **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:	125,000.0	150,000.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Units:	125,000.0	275,000.0	275,000.0	275,000.0	275,000.0	275,000.0	275,000.0	275,000.0	275,000.0	275,000.0
Yr Total Cost:	125,000	154,050	0	0	0	0	0	0	0	0
Cum Total Cost:	125,000	279,050	279,050	279,050	279,050	279,050	279,050	279,050	279,050	279,050

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:	7,986.0	10,482.0	9,176.0	7,234.3	6,813.3	5,511.6	4,192.8	3,319.3	2,620.5	631.5
Cum Hours:	7,986.0	18,468.0	27,644.0	34,878.3	41,691.6	47,203.2	51,396.0	54,715.3	57,335.8	57,967.3
Yr Total Cost:	487,254	667,140	474,336	410,735	408,999	361,880	295,833	228,679	209,185	51,833
Cum Total Cost:	487,254	1,154,395	1,628,731	2,039,466	2,448,465	2,810,345	3,106,178	3,334,856	3,544,041	3,595,874

CAM R Nichols CONTROL TEAM Rodney Whitaker

INCLUDES ESCALATION COSTS

WBS DICTIONARY
CONTROL ACCOUNT/CHARGE NUMBER

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.A.C	FIELD OPERATIONS	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
AFLD4	FIELD PROCUREMENT	

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Subcontractor
Materials
OCD's

b. TECHNICAL CONTENT:

The Acquisitions Department provides solicitation, award, and contract administration services, and DOE Contracting Officer interface for D&D, OSDF, Soils, Aquifer Restoration, Waste Pits Operations, Silos, Nuclear Material Disposition, Waste Treatment, and Site Support Projects; Lab Analysis, A&E, and Consultant Services, Benefits Programs, Temporary Professional BOA's; outsourcing; and buying and logistics management for Infrastructure, Site Support, Waste Management, Water Treatment, and Vehicle Administration Services, and Equipment and Facilities Leasing for Fluor Fernald, Inc. (Fluor Fernald).

c. SCOPE OF WORK:

The Field Procurement and Contract Manager is responsible for:

- Interface with internal and external customers
- Strategic planning and department oversight
- Implementation of prime contract requirements and applicable federal laws
- Review of contract actions prior to submittal for DOE consent
- Chairing the Contract Review Board
- The Balanced Score Card program
- Preparation and review of the Monthly DOE Procurement Action Report, and the biweekly Fluor Fernald/DOE Open Actions Report

Project Manager	Control Account Manager	Control Team Manager
		Rodney Whitaker

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.A.C	FIELD OPERATIONS	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
AFLD4	FIELD PROCUREMENT	

14. ELEMENT TASK DESCRIPTION

Procurement Managers (Programmatic Support Group; Cost Type Contract Closeout Group; Outsourcing Group; D & D, Maintenance, Site Support and Construction Group; and Silos, WPRAP & Lab BOA's Group) are responsible for:

- Interfacing with internal and external customers
- Participation in strategic planning
- Implementation of prime contract requirements and applicable federal laws
- Development and implementation of Fluor Fernald Acquisition Practices
- Reviewing contract actions prior to submittal for DOE consent
- Participating in Contract Review Boards Balanced Score Card reviews
- Input on the Monthly DOE Procurement Action Report
- Advising internal customers on appropriate contract vehicles
- Reviewing and assignment of requisitions for materials and services
- Reviewing of procurement and contract actions at varying levels depending on buyer/contract administrator expertise
- Participating in storyboard reviews of major solicitation and contract documents
- Preparing contract advertisements and solicitations
- Conducting pre-proposal meetings
- Leading proposal review teams and performing procurement review of proposals
- Preparing DOE and internal consent packages
- Preparing contract award documents
- Analyzing contract changes and claims through contract review and cost and price analysis
- Preparing negotiation positions and post negotiation documentation for contract change order proposals and requests for equitable adjustment and claims, and advise on same for group
- Conducting negotiations for contract changes requests for equitable adjustment and claims, and advise on same for group
- Performing contract administration
- Coordinating and track technical reviews
- Performing procurement review and approval of progress payment requests, and advise on same for group
- Preparing and tracking contract correspondence
- Maintaining familiarity with contract case law

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.A.C	FIELD OPERATIONS	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
AFLD4	FIELD PROCUREMENT	

14. ELEMENT TASK DESCRIPTION

Contract Administrators are responsible for:

- Advising internal customers on appropriate contract vehicles
- Participating in storyboard reviews of major solicitation and contract documents
- Preparing contract advertisements and solicitations
- Conduct pre-proposal meetings
- Leading proposal review teams, and perform procurement review of proposals
- Preparing DOE and internal consent packages
- Preparing contract award documents
- Analyzing contract changes and claims through contract review and cost and price analysis
- Preparing negotiation positions and post negotiation documentation for contract change order proposals and requests for equitable adjustment and claims
- Conducting negotiations for contract changes requests for equitable adjustment and claims
- Performing contract administration
- Coordinating and tracking technical reviews
- Performing procurement review and approval of progress payment requests
- Preparing and tracking contract correspondence
- Maintaining familiarity with contract case law
- Participating in quarterly Balanced Score Card reviews
- Reviewing publicized articles to maintain familiarity with contract case law

Buyers are responsible for:

- Preparing formal solicitations for commercial items and service
- Receiving and reviewing proposals
- Selecting the successful offer
- Preparing and awarding the purchase order
- Preparing award memorandums
- Performing source functions to identify and develop small and disadvantaged commercial sources of supply
- Participating in small and disadvantaged business outreach programs sponsored

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.A.C	FIELD OPERATIONS	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
AFLD4	FIELD PROCUREMENT	

14. ELEMENT TASK DESCRIPTION

by the Fluor Fernald Small and Disadvantaged Business Outreach Program
- Soliciting and evaluating oral proposals for commercial items and services through price analysis
- Selecting the successful proposer, and prepare and award the purchase order
- Preparing award memorandums
- Performing expediting functions
- Coordinating Teamster pickups of local urgent items
- Coordinating and tracking technical review, and performing procurement review and approval of invoices for payment
- Researching and solving invoice discrepancies; resolve "Over/Short/ Damaged" issues with receiving

The Credit Card Program Administrator provides daily guidance and instruction to all credit card holders within the Fluor Fernald Credit Card Program.

- Performing annual credit card holder training
- Reviewing and advising on credit card user monthly documentation
- Helping resolve any credit card holder statement disputes
- Supporting internal and external audits of the Fluor Fernald Credit Card program
- Interfacing with Payment tech (the credit card bank)

The Department Clerk is responsible for:

- Coordinating and scheduling conference rooms and group meetings
- Assisting departmental personnel with preparation of solicitation packages
- Performing data entry of purchase requisitions and purchase orders in CMMS
- Maintaining inventory and places orders for office supplies
- Performing the duties of Records Custodian associated with the site wide ARIDS system
- Compiling and creating various reports (Monthly Acquisitions Report, Open Action Items, specialized reports generated through CMMS etc.)
- Maintaining and issuing notification of Davis Bacon Wage Determinations
- Maintaining department's working and record files
- Generating, editing, and distributing correspondence, and meeting minutes

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.A.C	FIELD OPERATIONS	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
AFLD4	FIELD PROCUREMENT	

14. ELEMENT TASK DESCRIPTION

d. WORK SPECIFICALLY EXCLUDED:

- Budget for claims
- Computer purchases and upgrades.
- Fluor Fernald General and Administrative Budget.

SECTION 3

1.0 NARRATIVE

1. PROJECT TITLE: FACILITY AND PROJECT SUPPORT	2. DATE: 09/10/01	3. PBS#: 01
4. WBS ELEMENT CODE: 1.1.A.C.	5. WBS ELEMENT TITLE: FIELD OPERATIONS	
6. CAM NAME/ PHONE: V. TURNER/S. WENTZEL/F. MARANDA	7. CAM SIGNATURE:	
8. ORIGINAL/ CHANGE SCOPE/ PER CP#:	9. CONTROL ACCOUNT: AFLD	

PART 3: AFLD – FIELD OPERATIONS
Section 3: AFLD4 – Field Procurement

1.0 NARRATIVE

1.1 OVERVIEW

The Acquisitions Department provides solicitation, award, and contract administration services, and DOE Contracting Officer interface for D&D, OSDF, Soils, Aquifer Restoration, Waste Pits Operations, Silos, Nuclear Material Disposition, Waste Treatment, and Site Support Projects; Lab Analysis, A&E, and Consultant Services, Benefits Programs, Temporary Professional BOA's; outsourcing; and buying and logistics management for Infrastructure, Site Support, Waste Management, Water Treatment, and Vehicle Administration Services, and Equipment and Facilities Leasing for Fluor Fernald, Inc. (Fluor Fernald).

1.2 ASSUMPTIONS/EXCLUSIONS

1.2.1 Assumptions

- Fluor Fernald procurements will be governed by the approved Acquisitions Practices, and the Prime Contract and its incorporation of applicable portions of the Department Of Energy Acquisition Regulations (DEAR) and Federal Acquisition Regulations (FAR)

- Fluor Fernald's procurement authority imposing competition, notice and consent thresholds will remain as issued by DOE on April 1, 2001

R1-F01-010

- Acquisitions administrative functions such as Balanced Scorecard will continue through ~~FY10~~ the 1st quarter of FY10

- All D&D activities will be completed under one D&D Completion Contract Silos 1 and 2 AWRS will be completed through the existing fixed price contract with Foster Wheeler, and include the evaluation and negotiation of 30 to 40 requests for equitable adjustment totaling $40 to $50 million

- Silo 1, 2, and 3 Remediation Facility will be completed under a new fixed price construction contract

- The OSDF Cell 1 Cap will be completed through the existing fixed price contract with IT Corp

- There will be one future fixed price OSDF completion contract beginning in the 2nd quarter of FY04

- The Waste Pits Project will be completed under the existing fixed price contract with IT Corp and include only the evaluation and negotiation of only one request for equitable adjustment totaling $14 million. There will be one Time and Material Sitewide Drilling Completion Contract

- Waste Management will require treatment subcontracting through FY03

- Lab Analysis subcontracting will continue through FY08

- Miscellaneous small construction contracts (i.e. Natural Resource Restoration and trailer relocation contracts) will continue through 1st quarter of FY10

- Five Matrixed Contract Administrators will return to Acquisitions for contract close out after the physical work is complete on the project they are carried by (1 CA under WPRAP, 1 CA under Silos, 1 CA under OSDF, 1 CA under D&D, 1 CA under Waste Generator Services)

- Close out of cost type contracts will continue to require compliance –with Federal Cost Accounting Standards, and have close out audits performed by DCAA

R1-F01-011

- ~~Site support buying will continue through FY01~~

- Lab analysis requirements will continue through the duration of the Soils Excavation and OSDF projects

- Benefits programs and Temporary Worker BOA's will continue through FY10

- Site support buying will continue through FY10

- University Programs will continue through FY06

- The number of buyers in the Acquisitions Program Support group will decrease by one (1) FTE in the 2nd quarter of FY02 due to outsourcing of Information Management

- Acquisitions Program Support buying will continue through FY10 for such things as the Travel and Office Supply BOA's, and other miscellaneous support buying like printing services, and offsite conferences

- The CA for the Cell 1 Cap contract will be carried by Acquisitions from the 2nd quarter of FY02, when the CAP is complete, through the 3rd quarter of FY04, when the OSDF Completion Contract is awarded and he will again charge the project

- The majority of purchases under $2500 will continue to be made by credit card holders in other departments

R1-D-035

- Manpower calculations are based on the following four possible sources: Historical Data (HD), Industry Standard (IS), Composite of HD & IS (Comp), and Professional Judgement (PJ). See Quantification Table following Section 1.4.4 for calculations by work scope activity/sub activity

R1-F01-002

- Other Direct Costs (ODCs) are based on FY00 actual cost of work performed and budgeted manpower (FTEs). ~~, as follows: ODC$s/FTEs. Minimum of $100/FTE will be used if FY00 calculations are < $100/FTE.~~ See Section 1.4.1)3 for quotient, by work scope function

R1-D-048

- ~~Premium~~ Overtime is based on FY00 actual cost of work performed overtime hours (OT) and regular (Reg) hours, as follows: OT/Reg. See Section 1.4.1)2 for quotient, by work scope function

- Material rates are broken down into two parts: 1-General Materials and 2-Additional Materials. General Materials are based on data supplied by Estimating Services. Additional Materials are based on FY00 ACWP data. See Section 1.4 for materials rates.

- Subcontractor dollars are based on existing subcontracts at time of this baseline and anticipated new subcontracts not currently in place

R1-F01-001

- Dollar amounts are unescalated
- All calculations for manpower, subcontracts, materials, and ODCs are based on a 12-month year for 2002, 2003, 2004, 2005, 2006, 2007, 2008, and 2009
- All overtime is planned overtime
- Assume that all work activities are based on a 40-hour workweek
- The basis of this estimate assumes the use of Remediation Schedule, and Execution 6 Scenario
- Sales Tax @ 6% for all taxable items
- Estimate is expressed in FY01 dollars

- Estimate represents budget for the length of this charge number

1.2.2 Exclusions

- Five Contract Administrators will be carried by the projects for their duration (1 CA under WPRAP, 1 CA under Silos, 1 CA under OSDF, 1 CA under D&D, 1 CA under Waste Generator Services)
- No more than 10% or $3 million (whichever is less) in changes and claims are experienced on any of the contracts
- The department clerk who is on long-term disability is not considered in this effort

R1-F01-001

- Computer purchases and upgrades
- Does not include Fluor Fernald General Administrative Cost

1.2.3 Government-Furnished Equipment/Services

None

1.3 DRIVERS

1.3.1 Administrative

- Fluor Fernald Prime Contract imposed elements of the Federal Acquisition Regulations (FAR) And Department of Energy Acquisition Regulations (DEAR)
- Fluor Fernald Acquisitions Practices
- Fluor Daniel Corporate Policies
- Fluor Fernald subcontracting plan

1.3.2 Physical

- OU1 Complex D&D
- Plant 6/East Warehouse D&D
- Plant 1 Phase II D&D
- Admin Complex D&D
- Electrical Station D&D
- Silos 1-4, Superstructure, and RTS D&D
- OU3 other D&D
- Plant 5 D&D

- Maintenance Tank Farm D&D
- Multi Complex D&D
- Lab/Pilot Plant D&D
- Stand Alone D&D Components
- Mixed Waste Projects
- Low Level Waste Projects
- OSDF Project
- Aquifer/AWWT Project
- Environmental Monitoring
- ARASA Operations
- WPRAP Project Management
- Natural Resources Restoration
- Soil Remediation
- Stock Piles
- Silos Projects
- Waste Management

1.4 SCOPE OF WORK

1.4.1 Field Procurement

1.4.1)1 Plan/Scope

- The Field Procurement and Contract Manager is responsible for:
  - interface with internal and external customers
  - strategic planning and department oversight
  - implementation of prime contract requirements and applicable federal laws
  - review of contract actions prior to submittal for DOE consent
  - chairing the Contract Review Board
  - the Balanced Score Card program
  - departmental professional development, annual personnel and salary evaluations
  - preparation and review of the Monthly DOE Procurement Action Report, and the biweekly Fluor Fernald/DOE Open Actions Report
- Procurement Managers (Programmatic Support Group; Cost Type Contract Closeout Group; Outsourcing Group; D&D, Maintenance, Site Support and Construction

Group; and Silos, WPRAP & Lab BOA's Group) are responsible for:

- interface with internal and external customers participation in strategic planning
- implementation of prime contract requirements and applicable federal laws
- development and implementation of Fluor Fernald Acquisition Practices
- review of contract actions prior to submittal for DOE consent participation on Contract Review Boards Balanced Score Card reviews
- group professional development, annual group personnel and salary reviews
- input on the Monthly DOE Procurement Action Report
- advise internal customers on appropriate
- contract vehicles
- review and assignment of requisitions for materials and services
- review of procurement and contract actions at varying levels depending on buyer/contract administrator expertise
- participate in storyboard reviews of major solicitation and contract documents
- prepare contract advertisements and solicitations
- conduct pre-proposal meetings
- lead proposal review teams and perform procurement review of proposals
- prepare DOE and internal consent packages
- prepare contract award documents
- analyze contract changes and claims through contract review and cost and price analysis
- prepare negotiation positions and post negotiation documentation for contract change order proposals and requests for equitable adjustment and claims, and advise on same for group
- conduct negotiations for contract changes, requests for equitable adjustment and claims, and advise on same for group

- perform contract administration
- coordinate and track technical reviews
- perform procurement review and approval of progress payment requests, and advise on same for group
- prepare and track contract correspondence
- maintain familiarity with contract case law

• Contract Administrators:

- advise internal customers on appropriate contract vehicles
- participate in storyboard reviews of major solicitation and contract documents
- prepare contract advertisements and solicitations
- conduct pre-proposal meetings
- lead proposal review teams, and perform procurement review of proposals
- prepare DOE and internal consent packages
- prepare contract award documents
- analyze contract changes and claims through contract review and cost and price analysis
- prepare negotiation positions and post negotiation documentation for contract change order proposals and requests for equitable adjustment and claims
- conduct negotiations for contract changes, requests for equitable adjustment and claims
- perform contract administration
- coordinate and track technical reviews
- perform procurement review and approval of progress payment requests
- prepare and track contract correspondence
- maintain familiarity with contract case law

- participate in quarterly Balanced Score Card reviews
- review publicized articles to maintain familiarity with contract case law

- Buyers:
  - prepare formal solicitations for commercial items and service
  - receive and review proposals
  - select the successful offeror
  - prepare and award the purchase order
  - prepare award memorandums
  - perform sourcing functions to identify and develop small and disadvantaged commercial sources of supply
  - participate in small and disadvantaged business outreach programs sponsored by the Fluor Fernald Small and Disadvantaged Business Outreach Program
  - solicit and evaluate oral proposals for commercial items and services through price analysis
  - select the successful proposer, and prepare and award the purchase order
  - prepare award memorandums
  - perform expediting functions
  - coordinate Teamster pickups of local urgent items
  - coordinate and track technical review, and perform procurement review and approval of invoices for payment
  - research and solve invoice discrepancies; resolve "Over/Short/ Damaged" issues with receiving

- The Credit Card Program Administrator provides daily guidance and instruction to all credit card holders within the Fluor Fernald Credit Card Program
  - performs annual credit card holder training

- reviews and advises on credit card user monthly documentation
- helps resolve any credit card holder statement disputes
- supports internal and external audits of the Fluor Fernald Credit Card program
- interfaces with Payment tech (the credit card bank)

• The Department Clerk:

- coordinates and schedules conference rooms and group meetings
- assists departmental personnel with preparation of solicitation packages
- performs data entry of purchase requisitions and purchase orders in CMMS
- maintains inventory and places orders for office supplies
- performs the duties of Records Custodian associated with the site wide ARIDS system
- compiles and creates various reports (Monthly Acquisitions Report, Open Action Items, specialized reports generated through CMMS etc.)
- maintains and issues notification of Davis Bacon Wage Determinations
- maintains department's working and record files
- generates, edits, and distributes correspondence, and meeting minutes

R1-D-048

1.4.1)2 Quantification/~~Premium~~ Overtime

(Refer to Quantification Table)

No Planned Overtime

1.4.1)3 ODCs

ODC 600:
None

ODC 700:
Old Charge # 6EAAH - $1,811/FTE

ODC Travel:
Old Charge # 6EAAH - $1,214/FTE

1.4.1)4 Subcontracts/Materials

Subcontracts: NONE

Materials:

General Material $594/FTE

Additional Material

Materials/FTE NONE
Materials/Year NONE

Field Procurement Quantification Table Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)			
Activity	**Sub-Activity**	**Calc Type**	**Calculations**
Procurement and Contract Mgr.			
Management and oversight of procurement and contract operations.	Liaison between internal and external customers. Facilitate departmental strategic planning activities. Help establish departmental procedures that implement the requirements of the prime contract and applicable federal laws. Advise management and other department heads on appropriate contract vehicles available for planned procurement actions. Participate in and advise on analysis of change proposals, requests for equitable adjustment and contract claims. When required, review negotiation positions and records of negotiation, and on all contract actions in excess of $4 million prior to submittal for client consent. Participate in Contract Review Board reviews of contract actions. Oversee Acquisitions Balanced Score Card program. Review publicized articles to maintain familiarity with contract case law and decisions issued by the Government Courts and various Boards of Contract Appeals. Assist in the professional development of department personnel. Perform annual personnel evaluations of all direct reports. Oversee and approve all department annual salary reviews and perform annual salary reviews for direct reports. Assist with contract administration activities on the labor hour contract for construction labor and other contracts. Prepare Monthly DOE Procurement Action Report, and prepare the Biweekly Fluor Fernald/DOE Open Actions Report.	HD	1,747 hr./year x 1ea = 1,747 hrs.

Field Procurement Quantification Table Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)			
Activity	**Sub-Activity**	**Calc Type**	**Calculations**
Procurement Manager			
Management and oversight of procurement and contract administration for the following areas/projects: D&D; Aquifer Restoration; Waste Treatment; and Site Support Projects; Waste Pits Remedial Action; Silos; Waste Treatment; Lab Analysis; A&E; Consultant Services; Benefits Programs; Temporary Professional BOA's; Outsourcing; Cost Type Contract Closeout; Nuclear Materials Disposition; University Programs; Credit Card Program; Balanced Scorecard; Contract Review Board	Liaison between internal and external customers. Participate in departmental strategic planning activities. Help establish departmental procedures that implement the requirements of the prime contract and applicable federal laws. Advise internal customer management and personnel on appropriate contract vehicles available for planned procurement actions. Review requisitions for materials and services submitted to the; assign the same to buyers and contract administrators. Review procurement and contract actions at varying levels depending on contract administrator and buyer expertise. Participate in storyboard reviews of major solicitation and contract documents within direct responsibility. Prepare major contract advertisements, prepare solicitations, conduct pre-proposal meetings, receive proposals, lead proposal review teams, and perform procurement review of proposals, prepare client and internal award consent packages, prepare award documents on contracts within direct responsibility. Analyze (through contract review and cost and price analysis) and prepare negotiation position and documentation for contract change proposals, requests for equitable adjustment, and claims on contracts within direct responsibility. Conduct negotiations for contract changes, requests for equitable adjustment, and claims on contracts within direct responsibility. Prepare records of negotiation for negotiated contract changes, requests for equitable adjustment, and claims on	HD & PJ	1,747 hr./year x 5ea = 8,735 hrs.

Field Procurement Quantification Table

Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity	Sub-Activity	Calc Type	Calculations
Procurement Manager (Continued)	contracts within direct responsibility. Perform contract administration, and coordinate and track technical review, and perform procurement review and approval of progress payment requests on contracts within direct responsibility. Prepare and track contract correspondence on contracts within direct responsibility. Participate in Contract review Boards for review of major or critical procurement actions. Participate in quarterly Balanced Score Card assessments of procurement actions. Review publicized articles to maintain familiarity with contract case law and decisions issued by the Government Courts and various Boards of Contract Appeals. Assist in the professional development education of group team members. Perform annual personnel evaluations of all group team members. Perform annual salary reviews for group team members.		
Buyer/Contract Administrator			
Bid, Award and Administration of contracts for: D&D; Aquifer Restoration; Waste Treatment; and Site Support Projects; Waste Pits Remedial Action; Silos; Waste Treatment; Lab Analysis; A&E; Consultant Services; Benefits Programs; Temporary Professional BOA's; Outsourcing; OSDF; Cost Type Contract Closeout; Nuclear Materials Disposition; University Programs;	Participate in storyboard reviews of major solicitation and contract documents within direct responsibility. Prepare major contract advertisements, prepare solicitations, conduct pre-proposal meetings, receive proposals, lead proposal review teams, and perform procurement review of proposals, prepare client and internal award consent packages, prepare award documents. Analyze, through contract review and cost and price analysis, and prepare negotiation positions and documentation for contract change proposals, requests for equitable adjustment, and claims on contracts within direct responsibility.	HD & PJ	1,747 hr./year x 18 ea = 31,446 hrs.

Field Procurement Quantification Table Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)			
Activity	**Sub-Activity**	**Calc Type**	**Calculations**
Buyer/Contract Administrator (Continued)	Conduct negotiations for contract changes, requests for equitable adjustment, and claims on contracts within direct responsibility. Prepare records of negotiation for negotiated contract changes, requests for equitable adjustment, and claims on contracts within direct responsibility. Perform contract administration, and coordinate and track technical review, and perform procurement review and approval of progress payment requests on contracts within direct responsibility. Prepare and track contract correspondence on contracts within direct responsibility. Participate in Contract review Boards for review of major or critical procurement actions. Participate in quarterly Balanced Score Card assessments of procurement actions when requested. Review publicized articles to maintain familiarity with contract case law and decisions issued by the Government Courts and various Boards of Contract Appeals.		
And: Buying, expediting, and logistics management for: Infrastructure, Site Support, Waste Management, Water Treatment, and Vehicle Administration Services, Construction and Maintenance Equipment, Safety and Health, Engineering, Administration, Office Of The President; Facilities Leasing;	********** Prepare formal solicitations for commercial items and services, receive and review proposals, analyze proposals, and select the successful offeror, and prepare and award the purchase order. Prepare award memorandums to document the award process. Perform sourcing functions to identify and develop small and disadvantaged commercial sources of supply. Participate in small and disadvantaged business outreach programs sponsored by the Fluor Fernald Small and Disadvantaged Business Outreach Program.		

Field Procurement Quantification Table

Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity	Sub-Activity	Calc Type	Calculations
Buyer/Contract Administrator (Continued)	Solicit and evaluate oral proposals for commercial items and services through price analysis. Select the successful proposer, and prepare and award the purchase order. Prepare award memorandums to document the award process. Perform expediting functions on open purchase orders. Coordinate Teamster pickups of local urgent items. Coordinate and track technical review, and perform procurement review and approval of invoices for payment. Research and solve invoice discrepancies. Resolve "Over/Short/ Damaged" issues with receiving. Provide daily guidance and instruction to all credit card holders within the Fluor Fernald Credit Card Program. Annual credit card holder training. Review and advise on credit card user monthly documentation. Help resolve any credit card holder statement disputes. Support internal and external audits of the Fluor Fernald Credit Card program. Fluor Fernald's liaison with Paymenttech (the credit card bank).		
Clerks			
Departmental administrative assistance	Coordinate and schedule conference rooms and group meetings. Assist departmental personnel with preparation of solicitation packages. Perform data entry of purchase requisitions and purchase orders in CMMS. Maintain inventory and place orders for	HD & PJ	1,747 hr./year x 1ea = 1,747 hrs.

Field Procurement Quantification Table

Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity	Sub-Activity	Calc Type	Calculations
Clerks (Continued)	departmental supplies. Compile and create various reporting requirements (Monthly Acquisitions Report, Open Action Items, specialized reports through CMMS etc.) Maintain and issue notification of Davis Bacon Wage Determinations. Maintain department working and record files. Perform duties of Records Custodian associated with the site wide ARIDS system. Generate edit and distribute correspondence, meeting minutes, reports, etc. Total		43,675 hrs.

R1-F01-003

SECTION 3

2.0 MANPOWER PLANS

Manpower Planning Sheet (CR2)

MPS # 1AC04 FIELD PROCUREMENT

	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
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
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				
.....	Procurement	Procur. & Contracting Mgr.		130.50	6	6	6	6	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Procurement	Buyer/Contracts Administrator		529.20	19.3	19.3	19.3	18.3	17.3	17	17	17	15.8	15.8	15.8	15.8	16.8	16.8	16.8	16.8	15.8	14.8	14.8	14.8	14	14	14	14
	Administration	Clerks		32.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		Sheet Totals:		691.70	26.30	26.30	26.30	25.30	22.30	22.00	22.00	22.00	20.80	20.80	20.80	20.80	21.80	21.80	21.80	21.80	20.80	19.80	19.80	19.80	19.00	19.00	19.00	19.00

Manpower Planning Sheet (CR2)

MPS # 1AC04 FIELD PROCUREMENT

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																		
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							
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																				
Procurement	Procur. & Contracting Mgr.		3	3	3	3	2.5	2.5	2.5	1.5	1.5	1	1	1	1	0	0	0	0	0	0	0
Procurement	Buyer/Contracts Administrator		13	13	12	12	11	11	11	11	9.8	8.8	8.5	8.5	8.5	0	0	0	0	0	0	0
Administration	Clerks		1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0
		Sheet Totals:	17.00	17.00	16.00	16.00	14.50	14.50	14.50	13.50	11.30	9.80	9.50	9.50	9.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00

SECTION 3

3.0 ESTIMATE

AFLD4

FIELD PROCUREMENT

09/07/2001
12:15 PM

PBS: 01
WBS: 1.1.A.C
CTRL ACCT: AFLD
CHARGE NO: AFLD4
COMMENT NO: F01-031

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
**** STATED IN FY01 DOLLARS ****
(1 FTE EQUALS 1747 HOURS)

DATE: 13 MAY 2001
PROJECT MGR: R. NICHOLS
CAM: R. NICHOLS
PREPARED BY: L. HAMPSHIRE
ALL FISCAL YEARS

Resource: BUYCON **BUYER/CONTRACTS ADMN** **EOC:** LABOR
Res Dept: **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:	27,582.6	29,825.3	27,602.6	29,349.6	26,242.6	24,458.0	21,793.0	19,217.0	15,529.7	3,578.5
Cum Hours:	27,582.6	57,407.9	85,010.5	114,360.1	140,602.7	165,060.7	186,853.7	206,070.7	221,600.4	225,178.9
Yr Total Cost:	1,155,711	1,315,388	1,289,428	1,451,874	1,375,132	1,369,267	1,322,652	1,229,303	1,103,977	262,229
Cum Total Cost:	1,155,711	2,471,099	3,760,527	5,212,401	6,587,533	7,956,800	9,279,452	10,508,755	11,612,731	11,874,960

Resource: CLERKS **CLERKS** **EOC:** LABOR
Res Dept: **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	1,747.0	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	13,681.0	13,681.0	13,681.0
Yr Total Cost:	34,688	43,930	46,531	49,274	52,195	55,765	60,454	63,719	0	0
Cum Total Cost:	34,688	78,619	125,150	174,424	226,619	282,385	342,838	406,557	406,557	406,557

Resource: MAT300 **MATERIAL OBJCLASS300** **EOC:** MATERIAL
Res Dept: 950 **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:	12,870.0	14,895.0	13,543.0	14,137.0	13,098.0	12,474.0	10,395.0	8,910.0	6,102.0	1,263.0
Cum Units:	12,870.0	27,765.0	41,308.0	55,445.0	68,543.0	81,017.0	91,412.0	100,322.0	106,424.0	107,687.0
Yr Total Cost:	12,870	15,297	14,284	15,328	14,599	14,307	12,268	10,821	7,625	1,624
Cum Total Cost:	12,870	28,167	42,451	57,780	72,379	86,686	98,954	109,775	117,400	119,024

Resource: ODC700 **ODC 700** **EOC:** ODC
Res Dept: 950 **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:	39,239.0	45,411.0	41,291.0	43,102.0	39,933.0	38,031.0	31,693.0	27,165.0	18,605.4	3,850.6

INCLUDES ESCALATION COSTS

09/07/2001
12:15 PM

Cum Units:	39,239.0	84,650.0	125,941.0	169,043.0	208,976.0	247,007.0	278,700.0	305,865.0	324,470.4	328,321.0
Yr Total Cost:	39,239	46,637	43,551	46,734	44,510	43,619	37,404	32,990	23,250	4,951
Cum Total Cost:	39,239	85,876	129,427	176,161	220,671	264,290	301,695	334,685	357,935	362,886

Resource: ODCTRVL **TRAVEL RESOURCE** **EOC:** ODC
Res Dept: 950 **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:	26,304.0	30,442.0	27,679.0	28,893.0	26,769.0	25,494.0	21,245.0	18,211.0	12,472.6	2,581.4
Cum Units:	26,304.0	56,746.0	84,425.0	113,318.0	140,087.0	165,581.0	186,826.0	205,037.0	217,509.6	220,091.0
Yr Total Cost:	26,304	31,264	29,194	31,328	29,837	29,240	25,073	22,116	15,586	3,319
Cum Total Cost:	26,304	57,568	86,762	118,089	147,927	177,167	202,240	224,356	239,943	243,262

Resource: PURMGR **PROC & CONTRACT MGR** **EOC:** LABOR
Res Dept: **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:	8,712.0	6,988.0	6,988.0	6,988.0	6,988.0	6,988.0	5,241.0	3,926.5	1,957.5	421.0
Cum Hours:	8,712.0	15,700.0	22,688.0	29,676.0	36,664.0	43,652.0	48,893.0	52,819.5	54,777.0	55,198.0
Yr Total Cost:	551,470	465,599	493,162	522,239	553,197	591,030	480,543	379,462	210,227	46,607
Cum Total Cost:	551,470	1,017,068	1,510,230	2,032,469	2,585,667	3,176,697	3,657,240	4,036,702	4,246,929	4,293,536

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:	37,746.6	38,560.3	36,337.6	38,084.6	34,977.6	33,193.0	28,781.0	24,890.5	17,487.2	3,999.5
Cum Hours:	37,746.6	76,306.9	112,644.5	150,729.1	185,706.7	218,899.7	247,680.7	272,571.2	290,058.4	294,057.9
Yr Total Cost:	1,820,282	1,918,115	1,916,150	2,116,777	2,069,471	2,103,229	1,938,395	1,738,411	1,360,665	318,731
Cum Total Cost:	1,820,282	3,738,397	5,654,547	7,771,324	9,840,795	11,944,024	13,882,419	15,620,830	16,981,495	17,300,226

CAM _____ CONTROL TEAM _____

INCLUDES ESCALATION COSTS

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	7

5. WBS ELEMENT CODE	6. WBS ELEMENT TITLE
1.1.A.D	FACILITY PROJECTS

7. APPROVED CP NO.	8. DATE OF CHANGES
NEW PER CP# FY0115-0001-00	12/01/2000

9. SYSTEM DESIGN DESCRIPTION	10. BUDGET AND REPORTING NUMBER
CERCLA/ACA	EW05H3010

11. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Materials
Subcontracts
ODCs

b. TECHNICAL CONTENT:

The Facility Project element provides for off-site building and on-site trailer leases as well as the discrete projects necessary to maintain site infrastructure. The element is defined further into these activities:

Leases
New Trailer Complex
Medical 6-Plex
Miscellaneous Relocation Projects
Building Upgrades
Comm. Center Single-Wide
Equipment Disposition Pre-Fab Building
Plant 6 Water Management
Site Road Repairs

c. SCOPE OF WORK:

The Facility Project element provides for off-site building and on-site trailer leases as well as the discrete projects necessary to maintain site infrastructure. The discrete projects include installation of the new administrative trailer complex and medical 6-plex trailer, miscellaneous relocation projects, roof and HVAC building upgrades, and site road upgrades.

Miscellaneous relocation projects include the renovation of Building 93A, relocation of T-84, renovation of Building 44A, relocation of T-86 and T-87, and relocation of Stores/Equipment Disposition, renovation of T-45/46, renovation of Services Building.

WORK SCOPE DEFINITION
(Control Account)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	05/01/2001	Page 1

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.A.D	FACILITY PROJECTS	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L HAMPSHIRE	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW PER CP# FY01-0115-0001-00	12/00 - 12/09

12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ONE LINE)
APRJ	FACILITY PROJECTS

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Materials
Subcontracts
ODCs

b. TECHNICAL CONTENT:

The Facility Project element provides for off-site building and on-site trailer leases as well as the discrete projects necessary to maintain site infrastructure. The element is defined further into these activities:

Temporary Facility Leases and Purchases
New Trailer Complex
Health and Safety Building Relocation
Miscellaneous Relocation Projects
Upgrades

c. SCOPE OF WORK:

The Facility Project element provides for off-site building and on-site trailer leases as well as the discrete projects necessary to maintain site infrastructure. The discrete projects include installation of the new trailer complex, communications center and medical 6-plex trailer, miscellaneous relocation projects, Plant 6 water management, and site road upgrades.

Miscellaneous relocation projects include the renovation of Building 93A, relocation of T-84, relocation of T-86 and T-87, and relocation of Stores/Equipment Disposition.

Project Manager	Control Account Manager	Control Team Manager
L D Hampshire	R Nichols	Rodney Winters

WORK SCOPE DEFINITION
(Control Account)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	05/01/2001	Page 2

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.A.D	FACILITY PROJECTS	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L HAMPSHIRE	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW PER CP# FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ONE LINE)	
APRJ	FACILITY PROJECTS	

14. ELEMENT TASK DESCRIPTION

d. WORK SPECIFICALLY EXCLUDED:

FACILITY PROJECTS

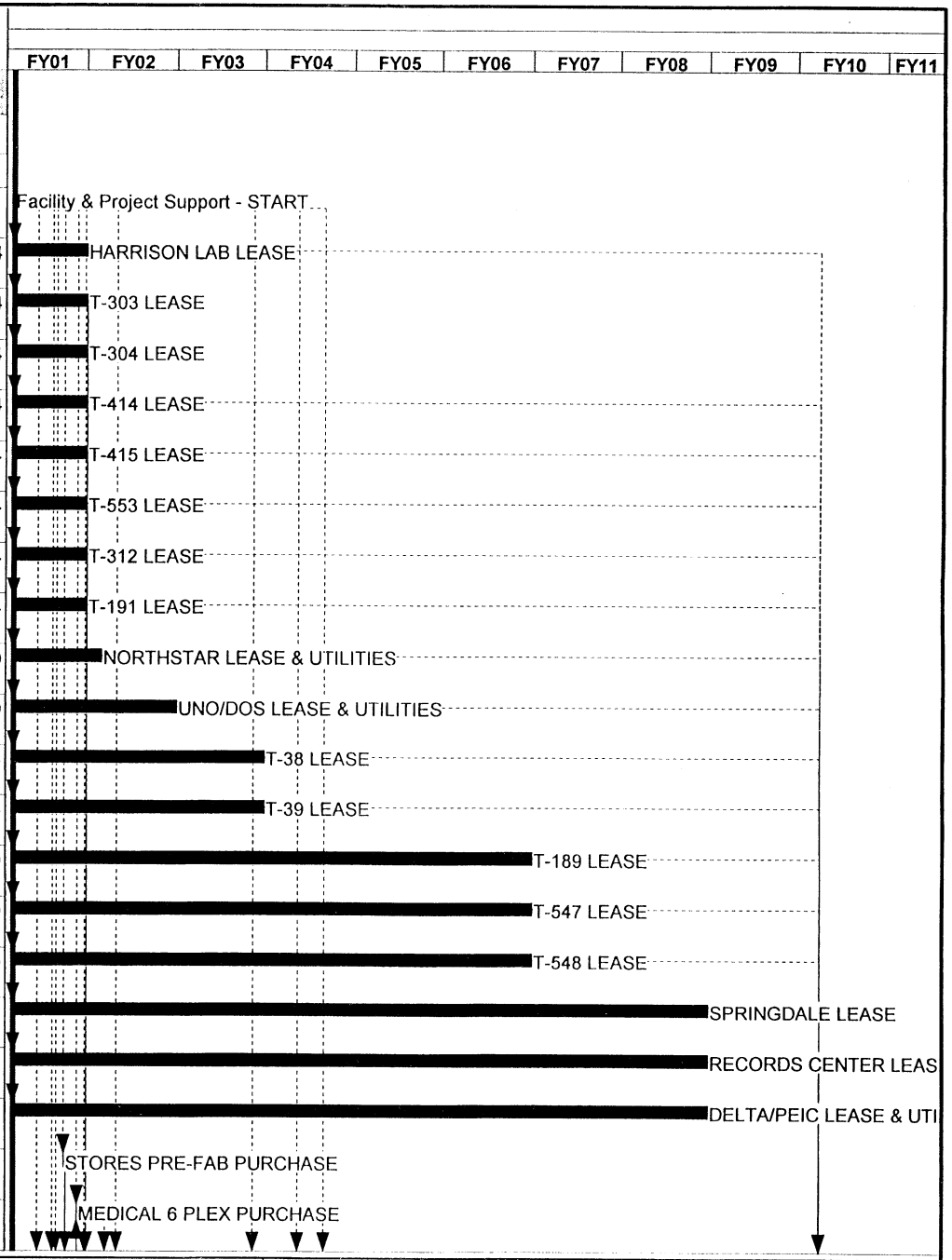
SCHEDULE

A PBS 01 - FACILITY & PROJECT SUPPORT

1.1.A.D FACILITY PROJECTS

APRJ1 LEASES & UTILITIES

Activity ID	Activity Description	Early Start	Early Finish	Orig Dur
APRJ10000	Facility & Project Support - START	01DEC00	01DEC00	1
APRJ10300	HARRISON LAB LEASE	01DEC00	30SEP01	304
APRJ10700	T-303 LEASE	01DEC00	30SEP01	304
APRJ10800	T-304 LEASE	01DEC00	30SEP01	304
APRJ11000	T-414 LEASE	01DEC00	30SEP01	304
APRJ11100	T-415 LEASE	01DEC00	30SEP01	304
APRJ11200	T-553 LEASE	01DEC00	30SEP01	304
APRJ11300	T-312 LEASE	01DEC00	30SEP01	304
APRJ11400	T-191 LEASE	01DEC00	30SEP01	304
APRJ10600	NORTHSTAR LEASE & UTILITIES	01DEC00	25NOV01	360
APRJ10200	UNO/DOS LEASE & UTILITIES	01DEC00	30SEP02	669
APRJ10900	T-38 LEASE	01DEC00	30SEP03	1,034
APRJ11900	T-39 LEASE	01DEC00	30SEP03	1,034
APRJ12000	T-189 LEASE	01DEC00	30SEP06	2,130
APRJ12100	T-547 LEASE	01DEC00	30SEP06	2,130
APRJ12200	T-548 LEASE	01DEC00	30SEP06	2,130
APRJ10100	SPRINGDALE LEASE	01DEC00	30SEP08	2,861
APRJ10400	RECORDS CENTER LEASE	01DEC00	30SEP08	2,861
APRJ10500	DELTA/PEIC LEASE & UTILITIES	01DEC00	30SEP08	2,861
APRJ12400	STORES PRE-FAB PURCHASE	29JUN01*	29JUN01	1
APRJ11700	MEDICAL 6 PLEX PURCHASE	20AUG01	20AUG01	1



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Start Date	01DEC00
Finish Date	27DEC09
Data Date	01DEC00
Run Date	09SEP01 09:43

BLCF - AP01

Sheet 1 of 3

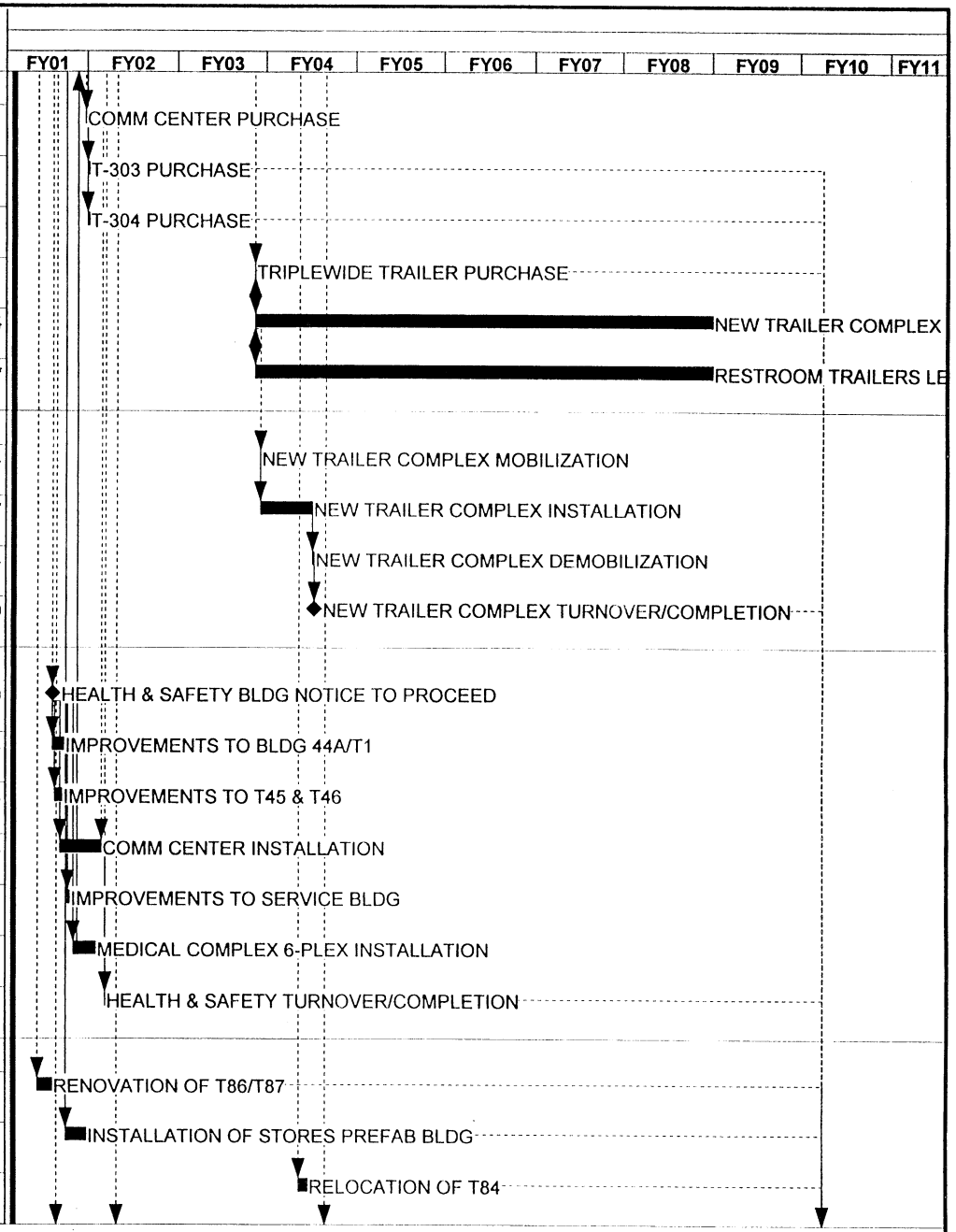
FACILITY & PROJECT SUPPORT

1.1.A.D FACILITY PROJECTS

Early Bar
Progress Bar
Critical Activity

Date	Revision	Checked	Approved
	F01-032		
	F01-036		
	F01-037		
	F01-039		

Activity ID	Activity Description	Early Start	Early Finish	Orig Dur
APRJ1 LEASES & UTILITIES				
APRJ12300	COMM CENTER PURCHASE	21SEP01*	21SEP01	1
APRJ10710	T-303 PURCHASE	01OCT01	01OCT01	1
APRJ10810	T-304 PURCHASE	01OCT01	01OCT01	1
APRJ11800	TRIPLEWIDE TRAILER PURCHASE	15AUG03	15AUG03	1
APRJ11500	NEW TRAILER COMPLEX LEASE	15AUG03	30SEP08	1,874
APRJ11600	RESTROOM TRAILERS LEASE	15AUG03*	30SEP08	1,874*
APRJ2 NEW TRAILER COMPLEX				
APRJ20100	NEW TRAILER COMPLEX MOBILIZATION	02SEP03*	08SEP03	4
APRJ20120	NEW TRAILER COMPLEX INSTALLATION	08SEP03	07APR04	117
APRJ20140	NEW TRAILER COMPLEX DEMOBILIZATION	08APR04	14APR04	4
APRJ20160	NEW TRAILER COMPLEX TURNOVER/COMPLETION		14APR04	0
APRJ3 HEALTH & SAFETY BLDG RELOCATION				
APRJ30100	HEALTH & SAFETY BLDG NOTICE TO PROCEED	14MAY01*		0
APRJ30110	IMPROVEMENTS TO BLDG 44A/T1	14MAY01	25JUN01	24
APRJ30120	IMPROVEMENTS TO T45 & T46	21MAY01	18JUN01	16
APRJ30130	COMM CENTER INSTALLATION	11JUN01	26NOV01	93
APRJ30140	IMPROVEMENTS TO SERVICE BLDG	09JUL01	23JUL01	9
APRJ30150	MEDICAL COMPLEX 6-PLEX INSTALLATION	06AUG01	05NOV01	52
APRJ30160	HEALTH & SAFETY TURNOVER/COMPLETION	12DEC01*	12DEC01	1
APRJ4 MISC RELOCATIONS				
APRJ40120	RENOVATION OF T86/T87	12MAR01*	10MAY01	36
APRJ40160	INSTALLATION OF STORES PREFAB BLDG	02JUL01	28SEP01	63
APRJ40140	RELOCATION OF T84	17FEB04*	19MAR04	24



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Start Date	01DEC00
Finish Date	27DEC09
Data Date	01DEC00
Run Date	09SEP01 09:43

BLCF - AP01

Sheet 2 of 3

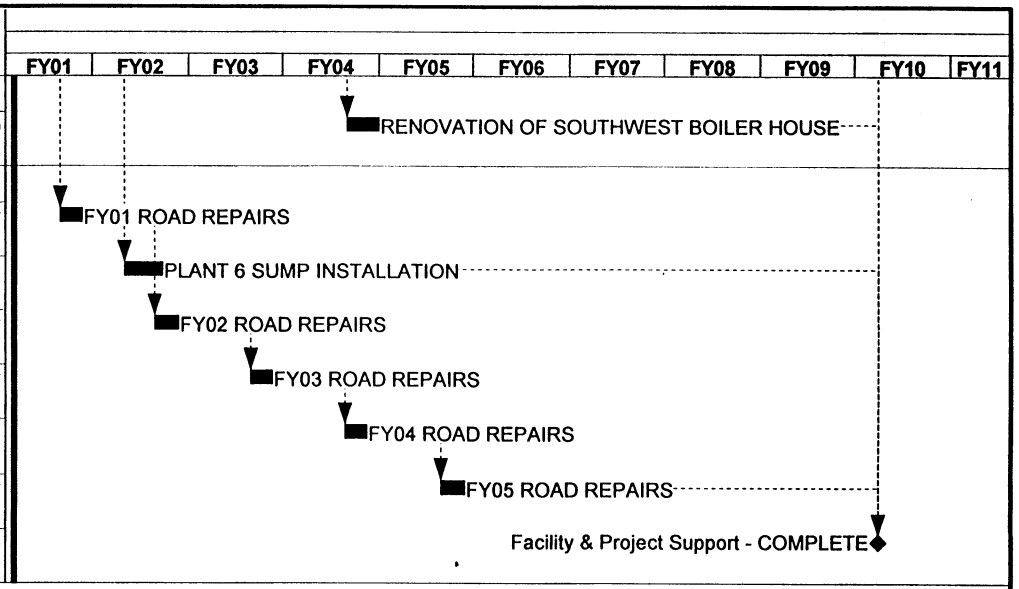
FACILITY & PROJECT SUPPORT

1.1.A.D FACILITY PROJECTS

Early Bar
Progress Bar
Critical Activity

Date	Revision	Checked	Approved
	F01-032		
	F01-036		
	F01-037		
	F01-039		

Activity ID	Activity Description	Early Start	Early Finish	Orig Dur
APRJ4 MISC RELOCATIONS				
APRJ40100	RENOVATION OF SOUTHWEST BOILER HOUSE	01JUN04*	30SEP04	69
APRJ5 UPGRADES				
APRJ50110	FY01 ROAD REPAIRS	29MAY01*	23AUG01	50*
APRJ50160	PLANT 6 SUMP INSTALLATION	28JAN02	20JUN02	82
APRJ50120	FY02 ROAD REPAIRS	28MAY02*	22AUG02	50*
APRJ50130	FY03 ROAD REPAIRS	27MAY03*	21AUG03	51*
APRJ50140	FY04 ROAD REPAIRS	24MAY04*	19AUG04	50*
APRJ50150	FY05 ROAD REPAIRS	31MAY05*	25AUG05	50*
APRJ59999	Facility & Project Support - COMPLETE		27DEC09*	0



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Start Date	01DEC00
Finish Date	27DEC09
Data Date	01DEC00
Run Date	09SEP01 09:43

BLCF - AP01

FACILITY & PROJECT SUPPORT

1.1.A.D FACILITY PROJECTS

Early Bar
Progress Bar
Critical Activity

Date	Revision	Checked	Approved
	F01-032		
	F01-036		
	F01-037		
	F01-039		

WBS DICTIONARY
CONTROL ACCOUNT/CHARGE NUMBER

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.A.D	FACILITY PROJECTS	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
APRJ1	TEMPORARY FACILITY LEASES AND PURCHASES	

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Subcontractors
Materials
ODC's

b. TECHNICAL CONTENT:

This account provides coverage for lease payment in accordance with specific lease terms and conditions, and associated electric and/or gas utilities for offsite leased facilities. This account also includes purchase and/or lease of on-site trailers, and facilities needed to support long-term space management.

c. SCOPE OF WORK:

This account includes off-site building leases, utility costs associated with off-site leased buildings, on-site trailer leases, and purchases of on-site trailers and facilities. Work scope specifically included is listed below:

OFF-SITE BUILDING LEASES:

- Springdale
- Uno/Dos Buildings
- Harrison Lab
- Record Center
- Delta Building (PEIC)
- Northstar Warehouse

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.A.D	FACILITY PROJECTS

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3010	FACILITY AND PROJECT SUPPORT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00	12/00 - 12/09

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
APRJ1	TEMPORARY FACILITY LEASES AND PURCHASES

14. ELEMENT TASK DESCRIPTION

UTILITIES ASSOCIATED WITH OFF-SITE LEASED BUILDINGS:

- Uno/Dos Buildings
- Delta Building (PEIC)
- Northstar Warehouse

ON-SITE TRAILER LEASES:

- Trailer 303
- Trailer 304
- Trailer 38
- Trailer 414
- Trailer 415
- Trailer 553
- Trailer 312
- Trailer 191
- Trailer 39
- Trailer 189
- Trailer 547
- Trailer 548
- New Trailer Complex - 18 double-wide trailers (associated with APRJ2)
- 3 Restroom Trailers (associated with APRJ2)

PURCHASE OF ON-SITE TRAILERS AND FACILITIES:

- Trailer 303
- Trailer 304
- Medical 6-Plex (associated with APRJ3)
- Triplewide Trailer (associated with APRJ3)
- Communication Center (associated with APRJ3)
- Stores/Equipment Disposition Pre-Fab Structure (associated with APRJ4)

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.A.D	FACILITY PROJECTS	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
APRJ1	TEMPORARY FACILITY LEASES AND PURCHASES	

14. ELEMENT TASK DESCRIPTION

d. WORK SPECIFICALLY EXCLUDED:

- All Space Management administrative support associated with the identified leases.
- All labor and material costs associated with the planning/scheduling and/or relocation field activities of facilities, personnel and equipment.
- Labor costs for new facility construction installation/removal and/or repairs/corrective maintenance not covered by the lease terms and conditions.
- All leased facility expenses not explicitly covered by lease terms and conditions.
- Computer purchases and upgrades.
- Fluor Fernald General and Administrative Budget.

SECTION 1

1.0 NARRATIVE

SECTION 1

2.0 ESTIMATE

APRJ1

LEASES

09/07/2001
12:16 PM

PBS: 01
WBS: 1.1.A.D
CTRL ACCT: APRJ
CHARGE NO: APRJ1
COMMENT NO: F01-038 & F01-039

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
**** STATED IN FY01 DOLLARS ****
(1 FTE EQUALS 1747 HOURS)

DATE: 13 MAY 2001
PROJECT MGR: R. NICHOLS
CAM: R. NICHOLS
PREPARED BY: L. HAMPSHIRE
ALL FISCAL YEARS

Resource: MAT300 **MATERIAL OBJCLASS300** **EOC:** MATERIAL
Res Dept: 950 **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:	654,814.0	67,900.0	78,050.0	6,500.0	6,500.0	6,500.0	6,500.0	6,500.0	0.0	0.0
Cum Units:	654,814.0	722,714.0	800,764.0	807,264.0	813,764.0	820,264.0	826,764.0	833,264.0	833,264.0	833,264.0
Yr Total Cost:	654,814	69,733	82,322	7,048	7,245	7,455	7,671	7,894	0	0
Cum Total Cost:	654,814	724,547	806,869	813,917	821,162	828,617	836,288	844,182	844,182	844,182

Resource: SERVSUB **SUBS** **EOC:** SUBCONTRACTORS
Res Dept: 950 **Overtime:** HAR **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:	1,572,700.0	1,623,000.0	1,436,962.6	1,584,756.3	1,584,007.5	1,583,258.7	1,568,858.7	1,570,356.3	0.0	0.0
Cum Units:	1,572,700.0	3,195,700.0	4,632,662.6	6,217,418.9	7,801,426.4	9,384,685.0	10,953,543.7	12,523,900.0	12,523,900.0	12,523,900.0
Yr Total Cost:	1,572,700	1,666,821	1,515,606	1,718,290	1,765,568	1,815,910	1,851,577	1,907,091	0	0
Cum Total Cost:	1,572,700	3,239,521	4,755,127	6,473,417	8,238,985	10,054,895	11,906,471	13,813,563	13,813,563	13,813,563

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 Total Cost:	2,227,514	1,736,554	1,597,928	1,725,338	1,772,813	1,823,365	1,859,248	1,914,985	0	0
Cum Total Cost:	2,227,514	3,964,068	5,561,996	7,287,334	9,060,146	10,883,512	12,742,760	14,657,744	14,657,744	14,657,744

CAM R Nichols CONTROL TEAM Rodney Whitaker

INCLUDES ESCALATION COSTS

SECTION 1

3.0 RISK PLAN

Risk/Opportunity Identification and Analysis Form

Project: Facility Project Support		PBS Number: 01 .				Total Baseline Cost (Minimum Case):		$18,389,195		
Evaluator: Robert Hamma	Date: 4/30/01	WBS Number: 1.1.A.D								
CAM: Bob Nichols	Date: 4/30/01	Control Account Number: APRJ								
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
Future Lab Construction	Construction Delays lead to greater degradation of roof	Replace large portions of roof no longer repairable	Internal	$750,000	3	70	4	$525,000	5	Accept risk
APRJ5 - Repair Lab South Hall Roof	Increase in expected roof degradation leading to increased SOW for contractor	Insufficient budget to cover additional scope. Increase in OT; schedule delays	Internal	$87,000	2	20	2	$17,400	3	Reduce by performing detailed engineering analysis of roofing materials and sub-structure
Construction Management	Multiple projects get expanded scopes	Additional work required to complete projects	Internal	$400,000	3	20	2	$80,000	3	Reduce by performing detailed engineering analysis
Craft Availability, Project Schedule	Insufficient available craft on multiple projects	Increase in OT; schedule delays	Internal	$175,000	2	10	1	$17,500	1	Accept risk
Procurement of FF furnished materials	Untimely delivery of materials on multiple projects	Schedule delay of 6 weeks	Internal	$44,000	2	15	2	$6,600	3	Reduce by identifying a secondary vendor
			Total:	$1,456,000			Total:	$646,500		

WBS DICTIONARY
CONTROL ACCOUNT/CHARGE NUMBER

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.A.D	FACILITY PROJECTS	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		09/03 - 04/04
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
APRJ2	NEW TRAILER COMPLEX	

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Subcontractors
Materials
ODC's

b. TECHNICAL CONTENT:

This charge number is used for the installation of a New Trailer Complex. Specifically this charge number includes the installation of 18 doublewides, installation of one triple-wide, and installation of three restroom trailers.

c. SCOPE OF WORK:

Install 18 doublewide trailers, each doublewide is 60'L x30'W. Install one triple-wide trailer, 60'L x 45'W. Install 3 restroom trailers, each 30'L x 15'W. The scope for the installation includes the following activities:

- Mobilize job boxes and materials
- Establish traffic control for movement of trailer sections
- Block, level, join, and anchor trailer sections per typical engineered drawings
- Install sealant and flashing to provide weather tight installation
- Install exterior lighting and emergency exit lights as engineered
- QA/system test electrical and Honeywell
- Install skirting, stairs and handicap access ramps
- Repair any damage to paved surface from trenching/excavation work
- Demobilization

Project Manager	Control Account Manager	Control Team Manager
L. Hampshire	R Nichols	Rodney Whitaker

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.A.D	FACILITY PROJECTS	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		09/03 - 04/04
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
APRJ2	NEW TRAILER COMPLEX	

14. ELEMENT TASK DESCRIPTION

- Interior plumbing in restroom and triple-wide trailers

Establish Utilities for 18 doublewides which will include:

- Tie-in to existing electric overhead cable from the existing 13.2 kw service. Mount 3 100kva transformers on the 3 existing poles west of the site. Purchase & install 6 new poles for the trailer complex area. Route approximately 1000 feet of 480v cable on the pole line and to the trailer masts.
- Tie-in to overhead communication/phone lines from the new telephone center. Route approximately 1500 feet of line on the existing poles and into each doublewide phone board.
- Route approximately 1500 feet of Honeywell cable on the existing poles and into the trailers utility rooms.
- Install 1 lift station, 4 catch basins, 700 feet of 12 inch PVC piping and tie-in to site storm drainage system.

Installation of three Restroom Trailers:

- Install and tie-in approximately 150 feet of 2 inch drinking water piping.
- Install and tie-in approximately 200 feet of 8 inch sanitary sewer piping.
- Install and tie-in approximately 150 feet of 1 inch electrical conduit and wire for outlets and lighting.

Installation of Triple-wide:

- Install and tie-in approximately 50 feet of 1-1/2 inch drinking water piping.
- Install and tie-in approximately 250 feet of 6 inch sanitary sewer piping to lift station SMH 163.
- Install and tie-in approximately 30 feet of overhead 80v cable.
- Install and tie-in approximately 30 feet of overhead communication/telephone lines.
- Install and tie-in approximately 30 feet of Honeywell fire alarm system line.
- Install 1 large drywell and stone along west side of road and tie-in to site storm drainage system.

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.A.D	FACILITY PROJECTS	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		09/03 - 04/04
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
APRJ2	NEW TRAILER COMPLEX	

14. ELEMENT TASK DESCRIPTION

d. WORK SPECIFICALLY EXCLUDED:

- Automatic sprinkler systems
- Upgrades for additional parking
- Upgrades to existing water supply lines
- Upgrades to existing storm drainage system
- Upgrades to existing sanitary sewage lines & lift station SMH3
- Upgrades to existing electrical supply
- Budget for trailer leases and purchases
- Phone center installation and start up budget
- Other resources required for planning, field and closeout activities that are not budgeted in their work scope will be budgeted in other charge numbers.
- Computer purchases and upgrades.
- Fluor Fernald General and Administrative Budget.

SECTION 2

1.0 NARRATIVE

1. PROJECT TITLE: FACILITY AND PROJECT SUPPORT	2. DATE: 09/10/01	3. PBS#: 01
4. WBS ELEMENT CODE: 1.1.A.D	5. WBS ELEMENT TITLE: FACILITY PROJECTS	
6. CAM NAME/ PHONE: ROBERT HAMMACK	7. CAM SIGNATURE:	
8. ORIGINAL/ CHANGE SCOPE/ PER CP#:	9. CONTROL ACCOUNT: APRJ	

PART 4: APRJ – FACILITY PROJECTS
Section 2: APRJ2 – New Trailer Complex

1.0 NARRATIVE

1.1 OVERVIEW

This charge number is used for the purchase and installation of a New Trailer Complex. Specifically this charge number includes the installation of 18 doublewides, purchase and installation of one triple-wide, and installation of three restroom trailers.

1.2 ASSUMPTIONS/EXCLUSIONS

1.2.1 Assumptions

- Assumes the triple-wide trailer will be located in the existing parking lot south of T-81
- Assumes all trailers are Category 1 type trailers and no structural renovation is required
- Assumes that the new Telephone Center is operational before the personnel move date
- Assumes the Honeywell fire alarm system will be in the new Telephone Center
- Assumes lease cost to include delivery and pick-up of all trailer units
- Assumes the purchase costs includes delivery
- Assumes that provisions will be made for handicap access
- Assumes the physical layout of the trailers are adequate and no structural renovation is required

- Manpower calculations are based on the following four possible sources: Historical Data (HD), Industry Standard (IS), Composite of HD & IS (Comp), and Professional Judgement (PJ). See Quantification Table for calculations by work scope activity/sub activity

- Other Direct Costs (ODCs) are based on FY00 actual cost of work performed and budgeted manpower (FTEs). ~~, as follows: ODC$s/FTEs. Minimum of $100/FTE will be used if FY00 calculations are < $100/FTE.~~ See Section 1.4.1)3 for quotient, by work scope function

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R1-D-048

- ~~Premium~~ Overtime is based on FY00 actual cost of work performed overtime hours (OT) and regular (Reg) hours, as follows: OT/Reg. See Section 1.4.1)2 for quotient, by work scope function

- Material rates are broken down into two parts: 1-General Materials and 2-Additional Materials. General Materials are based on data supplied by Estimating Services. Additional Materials are based on FY00 ACWP data. See Section 1.4 for materials rates.

- Subcontractor dollars are based on existing subcontracts at time of this baseline and anticipated new subcontracts not currently in place.

R1-F01-001

- Dollar amounts are unescalated
- All calculations for manpower, subcontracts, materials, and ODCs are based on a 12-month year for 2002, 2003, 2004, 2005, 2006, 2007, 2008, and 2009
- All overtime is planned overtime
- Assume that all work activities are based on a 40-hour workweek
- The basis of this estimate assumes the use of Remediation Schedule, and Execution 6 Scenario
- Sales Tax @ 6% for all taxable items
- Estimate is expressed in FY01 dollars
- Estimate represents budget for the length of this charge number

1.2.2 Exclusions

- Excludes automatic sprinkler systems
- Excludes upgrades for additional parking

- Excludes upgrades to existing water supply lines
- Excludes upgrades to existing storm drainage system
- Excludes upgrades to existing sanitary sewage lines & lift station SMH3
- Excludes upgrades to existing electrical supply
- Excludes budget for trailer leases
- Excludes phone center installation and start up budget

R1-F01-001

- Computer purchases and upgrades
- Does not include Fluor Fernald General Administrative Cost

1.2.3 Government-Furnished Equipment/Services

None

1.3 DRIVERS

- Administrative Complex D&D scheduled October 1, 2004 – Activity #211BBTC1

1.4 SCOPE OF WORK

The 18 doublewide trailers and the three restroom trailers will be located in northwest corner of the existing west parking lot, southwest of the existing administration building. The Triplewide trailer will be in the parking lot north of Trailer 81.

1.4.1 New Trailer Complex

1.4.1)1 Plan/Scope

Install 18 doublewide trailers, each doublewide is 60'L x30'W. Purchase and install one triple-wide trailer, 60'L x 45'W. Install 3 restroom trailers, each 30'L x 15'W which will include:

- Mobilize job boxes and materials
- Establish traffic control for movement of trailer sections
- Block, level, join, and anchor trailer sections per Typical engineered drawings
- Install sealant and flashing to provide weather tight installation
- Install exterior lighting and emergency exit lights as engineered
- QA/system test electrical and Honeywell
- Install skirting, stairs and handicap access ramps

- Repair any damage to paved surface from trenching/excavation work
- Demobilization
- Interior plumbing in restroom and triple-wide trailers

- Establish Utilities for 18 doublewides which will include:
  - Tie-in to existing electric overhead cable from the existing 13.2 kw service. Mount 3 – 100kva transformers on the 3 existing poles west of the site. Purchase and install 6 new poles for the trailer complex area. Route approximately 1000 feet of 480v cable on the pole line and to the trailer masts
  - Tie-in to overhead communication/phone lines from the new telephone center. Route approximately 1500 feet of line on the existing poles and into each doublewide phone board
  - Route approximately 1500 feet of Honeywell cable on the existing poles and into the trailers utility rooms
  - Install 1 lift station, 4 catch basins, 700 feet of 12 inch PVC piping and tie-in to site storm drainage system

- Installation of three Restroom Trailers:
  - Install and tie-in approximately 150 feet of 2 inch drinking water piping
  - Install and tie-in approximately 200 feet of 8 inch sanitary sewer piping
  - Install and tie-in approximately 150 feet of 1 inch electrical conduit and wire for outlets and lighting

- Installation of Triple-wide:
  - Install and tie-in approximately 50 feet of 1-1/2 inch drinking water piping
  - Install and tie-in approximately 250 feet of 6 inch sanitary sewer piping to lift station SMH 163
  - Install and tie-in approximately 30 feet of overhead 80v cable
  - Install and tie-in approximately 30 feet of overhead communication/telephone lines

- Install and tie-in approximately 30 feet of Honeywell fire alarm system line

- Install 1 large drywell and stone along west side of road and tie-in to site storm drainage system

- The scope of work for this charge number will require support for planning activities from the following organizations/resources which are budgeted in another cost account:

  - Engineering for Title 1 and II
  - Project Engineer
  - CCM
  - CE
  - Maintenance
  - Acquisitions
  - IH Engineer
  - RAD Engineer

- The scope of work for this charge number will require support for field and close out activities from the following organizations/resources which are budgeted in another cost account:

  - CCM
  - CE
  - Rad Engineer
  - Maintenance
  - WAO
  - QA
  - Waste Generator Services

- The scope of work for this charge number will require support for activities from the following organizations/resources which are included in this cost account:

  - Williams Scottsman subcontractors
  - Safety Representative
  - Radiological Technicians
  - IH Technicians
  - GCBT&C direct craft

New Trailer Complex Quantification Table Historical Data = (HD); Industry Standard = (IS); Composite of HD & IS = (Comp); Professional Judgement = (PJ)			
Activity/Materials/ODC's	**Sub Activity**	**Calc Type**	**Calculations**
New Trailer Complex			
Install 18 doublewide trailers, each doublewide is 60'L x 30'W. Install one triple-wide trailer, 60'L x 45'W. Install 3 restroom trailers, each 30'L x 15'W **General Materials** - $ 594/FTE	Mobilize job boxes and materials	HD	**Subcontractors** .3 Carpenters .39 Laborers .49 Electricians .01 Safety **Fluor Fernald FTE** .01 Rad Tech .01 IH Tech
Additional Materials 1) 3 – 100 KVA Formers 2) 6 – 45 foot Utility poles 3) 1060 feet 480V Overhead cable 4) 1530 feet Overhead Communication Fiber/copper wire 5) 1530 feet Overhead Honeywell cable 6) 150 - feet 1 inch conduit 7) 1 - Lift Station 8) 4 - Catch Basins 9) 700 feet 12 inch PVC Storm drain 10) 150 feet 2 inch Domestic Water line 11) 200 feet eight inch Sanitary line 12) 50 feet 1.5 inch Domestic water line 13) 1 Large Drywell	Establish traffic control for movement of trailer sections	HD	**Subcontractors** .3 Carpenters .39 Laborers .01 Safety **Fluor Fernald FTE** .01 Rad Tech .01 IH Tech
Additional Materials - $100,000 Subcontractors: William Scottsman to move trailer in place @ $1,400/unit x 42 units = $58,000 Wise - $ 270,000	Block, level, join, and anchor trailer sections per Typical engineered drawings	HD	**Subcontractors** .3 Carpenters .39 Laborers .01 Safety **Fluor Fernald FTE** .01 Rad Tech .01 IH Tech
ODC's *ODC 600* - None *ODC 700* - None *ODC Travel* - None	Install sealant and flashing to provide weather tight installation	HD	**Subcontractors** .3 Carpenters .01 Safety **Fluor Fernald FTEs** .01 Rad Tech .01 IH Tech

New Trailer Complex Quantification Table
Historical Data – (HD); Industry Standard – (IS); Composite of HD & IS – (Comp); Professional Judgement – (PJ)

Activity/Materials/ODC's	Sub Activity	Calc Type	Calculations
	Install exterior lighting and emergency exit lights as engineered	HD	**Subcontractors** .49 Electricians .01 Safety **Fluor Fernald FTE** .01 Rad Tech .01 IH Tech
	QA/system test electrical and Honeywell	HD	**Subcontractors** .49 Electricians .01 Safety **Fluor Fernald FTE** .01 Rad Tech .01 IH Tech
(Continued) Overtime – Overtime at 1.5x Rad Tech 4.80% and Safety Engineer 4.80% Fluor Fernald support only	Install skirting, stairs and handicap access ramps	HD	**Subcontractors** .39 Carpenters .01 Safety **Fluor Fernald FTE** .01 Rad Tech .01 IH Tech
	Repair any damage to paved surface from trenching/excavation work	HD	**Subcontractors** .06 Operators .39 Laborers .01 Safety **Fluor Fernald FTE** .01 Rad Tech .01 IH Tech
	Interior Plumbing in Restroom and Triple-wide trailers	HD	**Subcontractors** .28 Pipefitters .01 Safety **Fluor Fernald FTEs** .01 Rad Tech .01 IH Tech
	Demobilization	HD	**Subcontractors** .39 Laborers .01 Safety **Fluor Fernald FTEs** .01 Rad Tech .01 IH Tech

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New Trailer Complex Quantification Table Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)			
Activity/Materials/ODC's	**Sub Activity**	**Calc Type**	**Calculations**
	Tie-in to existing electric overhead cable from the existing 13.2 kw service. Mount 3 – 100kva transformers on the 3 existing poles west of the site. Purchase & install 6 new poles for the trailer complex area. Route approximately 1000 feet of 480v cable on the pole line and to the trailer masts	HD	**Subcontractors** .25 Electricians .02 Operators .1 Safety
	Tie-in to overhead communication/phone lines from the new telephone center. Route approximately 1500 feet of line on the existing poles and into each doublewide phone board	HD	**Subcontractors** .25 Electricians .02 Operators .1 Safety
	Route approximately 1500 feet of Honeywell cable on the existing poles and into the trailers utility rooms	HD	**Subcontractors** .25 Electricians .02 Operators .1 Safety

New Trailer Complex Quantification Table Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)			
Activity/Materials/ODC's	**Sub Activity**	**Calc Type**	**Calculations**
(Continued)	Install 1 lift station, 4 catch basins, 700 feet of 12 inch PVC piping and tie-in to site storm drainage system	HD	**Subcontractors** .25 Electricians .02 Operators .1 Safety
	Install and tie-in approximately 150 feet of 2 inch drinking water piping	HD	**Subcontractor** .06 Pipefitter .06 Operators .11 Laborers .05 Teamster .03 Electricians .01 Safety **Fluor Fernald FTEs** .01 Rad Tech .01 IH Techs
	Install and tie-in approximately 200 feet of 8 inch sanitary sewer piping	HD	**Subcontractors** .06 Pipefitter .06 Operators .11 Laborers .05 Teamster .03 Electricians .01 Safety **Fluor Fernald FTEs** .01 Rad Tech .01 IH Techs
	Install and tie-in approximately 150 feet of 1 inch electrical conduit and wire for outlets and lighting	HD	**Subcontractors** Pipefitter .06 Operators .11 Laborers .05 Teamster .03 Electricians .01 Safety **Fluor Fernald FTEs** .01 Rad Tech .01 IH Techs
	Install and tie-in approximately 50 feet of 1-1/2 inch drinking water piping	HD	**Subcontractors** .06 Pipefitter .06 Operators .11 Laborers .05 Teamster .03 Electricians .01 Safety **Fluor Fernald FTEs** .01 Rad Tech .01 IH Techs

New Trailer Complex Quantification Table Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)			
Activity/Materials/ODC's	**Sub Activity**	**Calc Type**	**Calculations**
(Continued)	Install and tie-in approximately 250 feet of 6 inch sanitary sewer piping to lift station SMH 163	HD	**Subcontractors** .06 Pipefitter .06 Operators .11 Laborers .05 Teamster .03 Electricians .01 Safety **Fluor Fernald FTEs** .01 Rad Tech .01 IH Techs
	Install and tie-in approximately 30 feet of overhead 80v cables	HD	**Subcontractors** .06 Pipefitter .06 Operators .11 Laborers .05 Teamster .03 Electricians .01 Safety Fluor **Fernald FTEs** .01 Rad Tech .01 IH Techs
	Install and tie-in approximately 30 feet of overhead communication/telephone line	HD	**Subcontractors** .06 Pipefitter .06 Operators .11 Laborers .05 Teamster .03 Electricians .01 Safety **Fluor Fernald FTEs** .01 Rad Tech .01 IH Techs

New Trailer Complex Quantification Table

Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity/Materials/ODC's	Sub Activity	Calc Type	Calculations
	Install and tie-in approximately 30 feet of Honeywell fire alarm system line	HD	**Subcontractors** .06 Pipefitter .06 Operators .11 Laborers .05 Teamster .03 Electricians .01 Safety **Fluor Fernald FTEs** .01 Rad Tech .01 IH Techs
	Install 1 large drywell and stone along west side of road and tie-in to site storm drainage system	HD	**Subcontractors** .06 Pipefitter .06 Operators .11 Laborers .05 Teamster .03 Electricians .01 Safety **Fluor Fernald FTEs** .01 Rad Tech .01 IH Techs

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SECTION 2

2.0 MANPOWER PLANS

Manpower Planning Sheet (CR2)

MPS # 1AD01 NEW TRAILER COMPLEX

	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
206	ADMIN COMPLEX D&D	10/01/2004	07/03/2006																		xxx	xxx	xxx	xxx	xxx	xxx	xxx	x
212	OFFICE TRAILER D&D	10/03/2005	04/03/2007																						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
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				

			TOT	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	Environmental Safety & H	Rad Tech	0.40	0	0	0	0	0	0	0	0	0	0	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0
2	Environmental Safety & H	Industrial Hygienist Tech.	0.40	0	0	0	0	0	0	0	0	0	0	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0
3	Environmental Safety & H	Safety Engineer	0.40	0	0	0	0	0	0	0	0	0	0	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0
	Subcontract	Subcontract Craft	10.00	0	0	0	0	0	0	0	0	0	0	1.1	4.7	4.1	0.1	0	0	0	0	0	0	0	0	0	0	0
		Sheet Totals:	11.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.40	5.00	4.40	0.40	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 # 1AD01 NEW TRAILER COMPLEX

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																		
206 ADMIN COMPLEX D&D	10/01/2004	07/03/2006																				
212 OFFICE TRAILER D&D	10/03/2005	04/03/2007	XXX	XXX	X																	
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							
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 Tech		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Industrial Hygienist 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
Subcontract	Subcontract Craft		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

3.0 ESTIMATE

APRJ2

NEW TRAILER COMPLEX

PBS: 01
WBS: 1.1.A.D
CTRL ACCT: APRJ
CHARGE NO: APRJ2
COMMENT NO:

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
**** STATED IN FY01 DOLLARS ****
(1 FTE EQUALS 1747 HOURS)

DATE: 13 MAY 2001
PROJECT MGR: R. NICHOLS
CAM: R. NICHOLS
PREPARED BY: L. HAMPSHIRE
ALL FISCAL YEARS

Resource: INHTEC **INDUST HYGIENIST TEC** **EOC:** LABOR
Res Dept: **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	0.0	20.3	154.4	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	0.0	0.0	20.3	174.7	174.7	174.7	174.7	174.7	174.7	174.7
Yr Total Cost:	0	0	855	6,869	0	0	0	0	0	0
Cum Total Cost:	0	0	855	7,723	7,723	7,723	7,723	7,723	7,723	7,723

Resource: MAT300 **MATERIAL OBJCLASS300** **EOC:** MATERIAL
Res Dept: 950 **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:	0.0	0.0	31,367.1	238,020.9	0.0	0.0	0.0	0.0	0.0	0.0
Cum Units:	0.0	0.0	31,367.1	269,388.0	269,388.0	269,388.0	269,388.0	269,388.0	269,388.0	269,388.0
Yr Total Cost:	0	0	33,084	258,077	0	0	0	0	0	0
Cum Total Cost:	0	0	33,084	291,161	291,161	291,161	291,161	291,161	291,161	291,161

Resource: RADTEC **RAD TECH** **EOC:** LABOR
Res Dept: **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	0.0	21.4	162.1	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	0.0	0.0	21.4	183.5	183.5	183.5	183.5	183.5	183.5	183.5
Yr Total Cost:	0	0	831	6,677	0	0	0	0	0	0
Cum Total Cost:	0	0	831	7,508	7,508	7,508	7,508	7,508	7,508	7,508

Resource: S&HENG **SAFETY ENGINEER** **EOC:** LABOR
Res Dept: **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	0.0	21.4	162.1	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	0.0	0.0	21.4	183.5	183.5	183.5	183.5	183.5	183.5	183.5

INCLUDES ESCALATION COSTS

Yr Total Cost:	0	0	1,212	9,740	0	0	0	0	0	0
Cum Total Cost:	0	0	1,212	10,952	10,952	10,952	10,952	10,952	10,952	10,952

Resource: SERVSUB **SUBS** **EOC:** SUBCONTRACTORS
Res Dept: **Overtime:** ELEC **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	0.0	4,075.3	30,924.7	0.0	0.0	0.0	0.0	0.0	0.0
Cum Units:	0.0	0.0	4,075.3	35,000.0	35,000.0	35,000.0	35,000.0	35,000.0	35,000.0	35,000.0
Yr Total Cost:	0	0	4,298	33,530	0	0	0	0	0	0
Cum Total Cost:	0	0	4,298	37,829	37,829	37,829	37,829	37,829	37,829	37,829

Resource: WISE **WISE CONSTRUCTION** **EOC:** SUBCONTRACTORS
Res Dept: 950 **Overtime:** WISE **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	0.0	73,929.0	560,991.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Units:	0.0	0.0	73,929.0	634,920.0	634,920.0	634,920.0	634,920.0	634,920.0	634,920.0	634,920.0
Yr Total Cost:	0	0	77,975	608,261	0	0	0	0	0	0
Cum Total Cost:	0	0	77,975	686,236	686,236	686,236	686,236	686,236	686,236	686,236

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	0.0	63.1	478.5	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	0.0	0.0	63.1	541.6	541.6	541.6	541.6	541.6	541.6	541.6
Yr Total Cost:	0	0	118,255	923,154	0	0	0	0	0	0
Cum Total Cost:	0	0	118,255	1,041,409	1,041,409	1,041,409	1,041,409	1,041,409	1,041,409	1,041,409

CAM _____ CONTROL TEAM _____

INCLUDES ESCALATION COSTS

FLUOR GLOBAL SERVICES

Memorandum

To:	Lyle Hampshire	Date:	May 14, 2001
Location:	Fernald MS44-0	Reference:	N/A
From:	Ken Kepler	Fernald #:	C:OOTP(PC/EST):2001-0061
Location:	Fernald MS80-3	Client:	DOE DE-AC24-01OH20115
Extension:	648-6761	Subject:	NEW TRAILER COMPLEX (Rev1)

c: File Record Subject Estimate – IH-2001-05-001(Rev1)

Attached are two (2) copies of the estimate for the NEW TRAILER COMPLEX (Rev1).

To request any additional copies of this estimate or for any questions, please contact Ed Lumbert on extension 6318.

KGK:EL:hmp
Attachment

ESTIMATE REVIEW FORM

PROJECT: New Trailer Complex
ESTIMATE NUMBER: IH-2001-05-001 R1
CLIENT: DOE
WBS NO.: 1.1.A.D

DATE: 12-May-01
ESTIMATOR: E. Lumbert
LOCATION: FERNALD
TASK NO.: APRJ2

COMPLETE ESTIMATE PACKAGE YES _____ NO _____

REQUIRED DOCUMENTS _____

COMMENTS: ✓ TYPO - PAGE 9 of 9 OF ESTIMATE BACKUP
- ITEM D SHOULD SAY "LEASE RESTROOM TRAILER", NOT "PURCHASE TRIPLEX TRAILER".

✓ ALSO, REMOVE TAXES ASSOCIATED WITH LEASES

REVIEWERS SIGNATURE [signature] DATE 5/14/01
NO TAXES ON LEASE -

RESOLUTION: REVISED CELL R33, SUMMARY SHEET TO READ AS:
= ROUND((SUM(H20..H32)-(5%*H14+H16))*M33,-2)
SEE BACK JP.
DESCRIPTION CORRECTED.

ESTIMATOR: [signature] DATE 5-14-01

REVIEWER: _____ DATE _____

ESTIMATE REVIEW FORM

PROJECT: New Trailer Complex
ESTIMATE NO.: IH-2001-05-001 R1
CLIENT: DOE
WBS NO.: 1.1.A.D

DATE: 12-May-01
ESTIMATOR: E. Lumbert
LOCATION: FERNALD
TASK NO.: APRJ2

OTHER REVIEWS: _____

REQUESTER _____ DATE _____

CAM if > $100,000 _____ DATE _____

PROJ.MGR. if >$ 1M _____ DATE 5/14/01

ESTIMATING SERVICES TEAM COACH _____ DATE 5/14/01

s:\estdept\project estimates\ih\pbs-01 rebaseline 2001\aprj2 new trailer complex\ih 2001 05 001 new trailer est.xls

Fluor Fernald, Inc.
PROJECTS CONTROLS
ESTIMATING SERVICES

May 12, 2001

PROJECT DESCRIPTION: New Trailer Complex
WBS NUMBER: 1.1.A.D
PROJECT ENGINEER: L. Hampshire
ESTIMATOR: J. Wingate/EL
ESTIMATE NUMBER: IH-2001-05-001 R1

BASIS OF ESTIMATE

SUPPORTING DOCUMENTATION:

Verbal Scope	☐	P & ID's	☐	Work Plan	☐
Drawings	☐	Equipment List	☐	Site Walk	☐
Sketches	☐	Specifications	☐	Eng. Mtg.	☒
Flow Diagrams	☐	Written Scope	☒	Estimate	☐

TYPE OF ESTIMATE:

Change Proposal	☐	Government	☐
Plan/Feasibility	☐	Conceptual	☐
Construction	☐	Title I Design	☐
Budget	☒	Independent	☐

BASIS OF ESTIMATE:

Prepare a control estimate to determine the cost of purchasing/leasing and installing a temporary trailer complex. Estimate to include manhours, labor, material, equipment, and subcontract costs for eighteen (18) doublewide trailers, one (1) triplewide trailer, and three (3) restroom trailers.

Fluor Fernald, Inc.
PROJECTS CONTROLS
ESTIMATING SERVICES

May 12, 2001

PROJECT DESCRIPTION: New Trailer Complex
WBS NUMBER: 1.1.A.D
PROJECT ENGINEER: L. Hampshire
ESTIMATOR: J. Wingate/EL
ESTIMATE NUMBER: IH-2001-05-001 R1

ESTIMATE ASSUMPTIONS

EXECUTION:

☒ This project is to be performed on a 40-hour week, 10 hours a day.
☐ This project is to be performed on a 40-hour week, 8 hours a day.
☐ Premium time allowed.

WAGE RATES:

☐ Wage rates within this estimate are based on Project Labor Agreement rates, effective October 2000 and are considered FY01 dollars for estimating.
☒ Wage rates within this estimate are based on FF Support Contractor FSC 599 wage rates, effective October 1999 have been escalated 3% and are considered FY01 dollars for estimating.
☐ Wage rates within this estimate are based on FF FTE Planning Labor Rates FY01.

ENGINEERING:

☒ N/A
☐ Engineering dollars provided by the Project Engineer.
☐ Engineering dollars have been factored in at the standard 12% of the total direct and indirect field costs as per request of Project Engineer.

CONSTRUCTION MANAGEMENT:

☒ N/A
☐ Construction Management dollars provided by the Project Engineer.
☐ Construction Management dollars have been factored in at the standard 30% of the total direct and indirect field costs as per request of Project Engineer.

PROJECT MANAGEMENT:

☒ N/A
☐ Project Management dollars provided by the Project Engineer.
☐ Project Management dollars have been factored in at the standard 30% of the total direct and indirect field costs as per request of Project Engineer.

WASTE PROGRAM MANAGEMENT:

☒ N/A
☐ Waste Program Management dollars provided by the Project Engineer.

Fluor Fernald, Inc.

PROJECTS CONTROLS
ESTIMATING SERVICES

May 12, 2001

PROJECT DESCRIPTION: New Trailer Complex
WBS NUMBER: 1.1.A.D
PROJECT ENGINEER: L. Hampshire
ESTIMATOR: J. Wingate/EL
ESTIMATE NUMBER: IH-2001-05-001 R1

PRODUCTIVITY:

A productivity factor has been developed and applied to the unit man-hours derived from MEANS, Richardson, NECA, and or any other published estimating source. See attachment APPENDIX "A" and APPENDIX "B".

ESCALATION:

Escalation costs are excluded from the target estimate. The escalation costs are calculated within the Micro-Frame computer system according to the plan for rebaselining.

UNIT RATES:

Unit man-hours, equipment and material dollars are based on Richardson, MEANS, NECA, and or other published rates.

G & A (HO EXPENSE):

G & A are excluded from the target estimate. The G & A cost are calculated within the Micro-Frame computer system according to the plan for rebaselining.

HEALTH PHYSICS:

See attached APPENDIX "C".

RISK BUDGET:

N/A.

CONTINGENCY:

N/A.

Fluor Fernald, Inc.
PROJECTS CONTROLS
ESTIMATING SERVICES

May 12, 2001

PROJECT DESCRIPTION: New Trailer Complex
WBS NUMBER: 1.1.A.D
PROJECT ENGINEER: L. Hampshire
ESTIMATOR: J. Wingate/EL
ESTIMATE NUMBER: IH-2001-05-001 R1

ESTIMATE INCLUSIONS & EXCLUSIONS

INCLUSIONS:

- Premobilization & Mobilization.
- Demobilization.
- Labor hours.
- Material dollars.
- Equipment dollars.

EXCLUSIONS:

- Premium time.
- Permits and fees.
- FF G & A (Home Office Expense).
- Construction Management.
- Any second tier subcontract costs.
- Project Management dollars.
- Waste Management dollars.

SUPPORT CONTRACTOR ESTIMATE SUMMARY SHEET

PROJECT: New Trailer Complex
ESTIMATE NO.: IH-2001-05-001 R1
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 14-May-01
ESTIMATOR: E. Lumbert
LOCATION: FERNALD
TASK NO: APRJ2

	DESCRIPTION	M/H	AVG. RATE	SPT.CONT. LABOR $	FERNALD S/C / OTHER	FERNALD MAT'L $	FERNALD EQUIP $	FERNALD TOTAL $
	Mobilization & Demobilization	295		$10,700		$200		
	Site Development	2,116		$74,620	$35,000	$165,150		$200,150
	Install Double Wide Trailer	8,057		$301,060		$18,360		$18,360
	Install Triplex	857		$31,010		$2,330		$2,330
	Install Restroom Trailers	2,073		$42,830		$3,120		$3,120
	Lease Dbl Wide Trailer (APRJ1)					$900,000		$900,000
	Purchase Triplex Trailer (APRJ1)					$67,500		$67,500
	Lease Restroom Trailer (APRJ1)					$60,000		$60,000
	SUPPORT CONT. / FF D. F. COST TOTAL	13,398	$34.35	$460,220	$35,000	$1,216,660		$1,251,660
	SUPERVISION	2,546		$125,600				
	SMALL TOOLS & CONSUMABLES					$50,600		$50,600
	MISC. EQUIP.RENTAL							
	JOB CLEAN-UP	603		$20,700		$6,900		$6,900
	SAFETY	262		$9,000		$4,800		$4,800
	HEALTH PHYSICS S/C	565		$19,400		$2,500		$2,500
	JOB SPECIFIC TRAINING							
	SUPPORT CONT. INDIRECT FIELD COST TOTAL	3,976		$174,700				
	SUPPORT CONT. TOTAL BILLABLE COSTS	17,373	$36.55	$634,920				
	TEMPORARY FACILITIES							
	TEMPORARY UTILITY HOOK-UP							
	FD FERNALD SALES TAX					$19,300		$19,300
	FF INDIRECT FIELD COSTS TOTAL					$84,100		$84,100
	FF DIRECT & INDIRECT FIELD COSTS TOTAL				$35,000	$1,300,760		$1,335,760
	FF and SUPT.CONT. DIRECT & INDIRECT FIELD COST TOTAL			$634,920	$35,000	$1,300,760		$1,970,680
	SUB-TOTAL (BASE ESTIMATE)							$1,970,700
	TARGET ESTIMATE (FY 01 DOLLARS)							$1,970,700

ESTIMATE PERFORMED B

SUPPORT CONTRACTOR ESTIMATE SUMMARY SHEET

PROJECT: New Trailer Complex
ESTIMATE NO.: IH-2001-05-001 R1
CLIENT: DOE
WBS NO.: 1.1.A.D

DATE: 14-May-01
ESTIMATOR: E. Lumbert
LOCATION: FERNALD
TASK NO.: APRJ2

FACTORS

	SUPT.CONT.	FD FERNALI					PROJECT
	LABOR $	LABOR $	S/C $	MAT'L. $	EQUIP. $	PPE $	TOTAL $
DFC DOLLARS	$460,220		$35,000	$1,216,660		$2,500	$1,714,380
IFC COST FACTOR	1.3796	1.0000	1	1.0512		--	
SALES TAX COST FACTOR	--	--	--	1.0600	1.0600	1.0600	
BOND + OVERHEAD & PROFIT COST FACTOR	N/A	N/A	N/A	N/A	N/A	N/A	
DIRECT FIELD COST FACTOR =	1.3796	1.0000	1.0000	1.1143		1.0600	
DIRECT BASE ESTIMATE $'s	$634,920		$35,000	$1,298,098		$2,650	$1,970,668
RISK BUDGET FACTOR	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
DIRECT TARGET ESTIMATE FACTOR	1.3796	1.0000	1	1.1143		1.0600	
DIRECT TARGET EST (FY01 DOLLARS)	$634,920		$35,000	$1,298,098		$2,650	$1,970,668

NOTE:
1.) If there are no equipment rental costs in the "Directs" (0 $'s in I20) and the default allowance of $3.50 per MH has been used in the "indirects", input the indirect Equip. $'s in H62 and put a dash in H63. This will treat the Equip. $'s as direct cost and apply the sales tax factor.
On page 3 below, insert the equipment $'s in any pay items that apply.

SUPPORT CONTRACTOR ESTIMATE SUMMARY SHEET

PROJECT: New Trailer Complex
DATE: 14-May-01
ESTIMATE NO.: IH-2001-05-001 R1
ESTIMATOR: E. Lumbert
CLIENT: DOE
LOCATION: FERNALD
WBS NO.: 1.1.A.D
TASK NO.: APRJ2

Direct Field Cost w/FACTORS

PAY ITEM NO.	DESCRIPTION	SUPPORT CONT. LABOR $	FF LABOR $	FF S/C $	FF MAT'L. $	FF EQUIP. $	FF PPE $	PROJECT TOTAL $
	Mobilization & Demobilization	10,700 $14,760			200 $220		58 $60	10,958 $15,040
	Site Development	74,620 $102,950		35,000 $35,000	165,150 $184,020		405 $430	275,175 $322,400
	Install Double Wide Trailer	301,060 $415,340			18,360 $20,460		1,635 $1,730	321,055 $437,530
	Install Triplex	31,010 $42,780			2,330 $2,600		168 $180	33,508 $45,560
	Install Restroom Trailers	42,830 $59,090			3,120 $3,480		233 $250	46,183 $62,820
	Lease Dbl Wide Trailer (APRJ1)				900,000 $1,002,850			900,000 $1,002,850
	Purchase Triplex Trailer (APRJ1)				67,500 $75,210			67,500 $75,210
	Lease Restroom Trailer (APRJ1)				60,000 $66,860			60,000 $66,860
	SUB-TOTAL - SUPPORT CONTRACTOR	$634,920						$634,920
	SUB-TOTAL - FF			$35,000	$1,298,100		$2,650	$1,335,750
	TOTAL DIRECT FIELD COSTS w/FACTORS							$1,970,670

NOTE: The above costs exclude any FD Fernald support costs that may appear on page 1 & 2, such as Waste Disposition, Engineering, Project Management, or Construction Management.

PROJECT: New Trailer Complex
ESTIMATE NO.: IH-2001-05-001 R1
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 14-May-01
ESTIMATO E. Lumbert
LOCATION: FERNALD
TASK NO.: APRJ2

	DIRECT COST SUMMARY	QTY	UNIT	MAN-HOURS			COST / UNIT				LABOR	S/C	MAT'L	EQUIP	TOTAL
				Unit	Total	Rate	Labor	S/C	Mat'l	Equip					
	Mobilization & Demobilization				295						$10,700		$200		$10,900
	Site Development				2,116						$74,620	$35,000	$165,150		$274,770
	Install Double Wide Trailer				8,057						$301,060		$18,360		$319,420
	Install Triplex				857						$31,010		$2,330		$33,340
	Install Restroom Trailers				2,073						$42,830		$3,120		$45,950
	Lease Dbl Wide Trailer (APRJ1)												$900,000		$900,000
	Purchase Triplex Trailer (APRJ1)												$67,500		$67,500
	Lease Restroom Trailer (APRJ1)												$60,000		$60,000
	DIRECT COST SUMMARY	1	LOT		13,398	$34.35					$460,220	$35,000	$1,216,660		$1,711,880

SUPPORT CONTRACTOR - Stated in FY01 DOLLARS

PROJECT: New Trailer Complex
ESTIMATE NO.: IH-2001-05-001 R1
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 14-May-01
ESTIMATO E. Lumbert
LOCATION: FERNALD
TASK NO.: APRJ2

PPE LEVEL	Mobilization & Demobilization	QTY	UNIT	MAN-HOURS Unit	MAN-HOURS Total	MAN-HOURS Rate	COST/UNIT Labor	COST/UNIT S/C	COST/UNIT Mat'l	COST/UNIT Equip	LABOR	S/C	MAT'L	EQUIP	TOTAL
	Mobilization														
D	Tool Trailer	40	hr	1.000	46	33.93			200.00		$1,553		$200		$1,753
	Demobilization														
D	Complete Punch List Items	120	hr	1.000	137	36.72					$5,041				$5,041
D	Other Area Requirements	98	hr	1.000	112	36.72					$4,120				$4,120
	Mobilization & Demobilization				295	$36.25					$10,700		$200		$10,900

SUPPORT CONTRACTOR - Stated in FY01 DOLLARS

PROJECT: New Trailer Complex
ESTIMATE NO.: IH-2001-05-001 R1
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 14-May-01
ESTIMATO E. Lumbert
LOCATION: FERNALD
TASK NO.: APRJ2

PPE LEVEL	Site Development	QTY	UNIT	MAN-HOURS Unit	MAN-HOURS Total	MAN-HOURS Rate	COST / UNIT Labor	COST / UNIT S/C	COST / UNIT Mat'l	COST / UNIT Equip	LABOR	S/C	MAT'L	EQUIP	TOTAL
D	Clean Area	65	mh	1.0000	74	$33.93					$2,523				$2,523
D	Survey, Horizontal & Vertical Co	90	mh	1.0000	103	$33.93			0.50		$3,494		$45		$3,539
D	Excavation	307	cy	0.1070	38	$33.93				by FD	$1,277				$1,277
D	Install 12"Storm Drain	700	lf	0.1500	120	$33.93			38.00		$4,076		$26,600		$30,676
D	Install 2" Domestic Water	150	lf	0.0350	6	$33.93			0.35		$204		$53		$257
D	Install 8" Sanitary	200	lf	0.0920	21	$33.93			11.30		$714		$2,260		$2,974
D	Install 1 1/2" Domestic Water	50	lf	0.0350	2	$33.93			0.35		$68		$18		$86
D	Install 6" Sanitary	250	lf	0.0760	22	$33.93			6.65		$738		$1,663		$2,401
D	Install Catch Basins	4	ea	10.3940	48	$33.93			519	by FD	$1,614		$2,076		$3,690
D	Install Lift Station	1	ea	494.0	565	$33.93			27,000		$19,175		$27,000		$46,175
D	Install Dry Well	1	ea	18.4290	21	$33.93			790		$715		$790		$1,505
D	Bedding Material	50	cy	0.2490	14	$33.93			17.00	by FD	$483		$850		$1,333
D	Concrete for Lift Sta, Dry Well &	8	cy	2.9420	28	$33.93			75.00	by FD	$952		$625		$1,577
D	Backfill	374	cy	0.8950	383	$33.93				by FD	$12,988				$12,988
D	Install Power Poles	6	ea	11.7650	81	$38.12			525	by FD	$3,078		$3,150		$6,228
D	Transformer 100KVA	9	ea	29.0	299	$38.12			7,100		$11,381		$63,900		$75,281
D	480V O.H. Cable	1,000	lf	0.0800	92	$38.12			20.75		$3,488		$20,750		$24,238
D	O.H. Commo/Phone Lines	1,500	lf	0.0229	39	$38.12			3.65		$1,495		$5,475		$6,970
D	O.H. Honeywell Cable	1,500	lf	0.0160	27	$38.12			2.81		$1,047		$4,215		$5,262
D	1" Conduit	150	lf	0.1140	20	$38.12			1.86		$746		$279		$1,025
D	480V O.H. Cable	30	lf	0.0800	3	$38.12			20.75		$105		$623		$728
D	480V O.H. Cable	30	lf	0.0800	3	$38.12			20.75		$105		$623		$728
D	O.H. Commo/Phone Lines	30	lf	0.0229	1	$38.12			3.65		$30		$110		$140
D	O.H. Honeywell Cable	30	lf	0.0160	1	$38.12			2.81		$21		$84		$105
D	400 Amp Safety Switch	3	ea	8.8890	31	$38.12			870		$1,163		$2,610		$3,773
D	Allowance for Hardware	68	hr	1.0000	77	$38.12			20.00		$2,943		$1,350		$4,293
D	Electrical Contractor	1	ls					35,000				$35,000			$35,000
	Site Development				**2,116**	**$35.26**					**$74,620**	**$35,000**	**$165,150**		**$274,770**

SUPPORT CONTRACTOR - Stated in FY01 DOLLARS

PROJECT: New Trailer Complex
ESTIMATE NO.: IH-2001-05-001 R1
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 14-May-01
ESTIMATO E. Lumbert
LOCATION: FERNALD
TASK NO.: APRJ2

PPE LEVEL	Install Double Wide Trailer	QTY	UNIT	MAN-HOURS Unit	MAN-HOURS Total	MAN-HOURS Rate	COST / UNIT Labor	COST / UNIT S/C	COST / UNIT Mat'l	COST / UNIT Equip	LABOR	S/C	MAT'L	EQUIP	TOTAL
D	Labor assoc w/Lease of Dbl Wi	18	ea	2.000	41	36.72					$1,512				$1,512
D	Block,Level, Join and Anchor	1,913	hr	1.000	2,188	36.72			2.00		$80,339		$3,825		$84,164
D	Skirting, Flashing & Sealing	608	hr	1.000	695	36.72			5.00		$25,519		$3,038		$28,557
D	Stairs, Handicap Access Ramps	1,215	hr	1.000	1,390	36.72			3.00		$51,039		$3,645		$54,684
D	Exterior Lighting	878	hr	1.000	1,004	38.12			1.25		$38,263		$1,097		$39,360
D	Electrical Tie -in	1,170	hr	1.000	1,338	38.12			1.25		$51,018		$1,463		$52,481
D	Honeywell Tie-in	608	hr	1.000	695	38.12			2.50		$26,490		$1,519		$28,009
D	Telephone Tie-in	608	hr	1.000	695	38.12			2.50		$26,490		$1,519		$28,009
D	Elect Portable Water Coolers	18	ea	0.500	10	38.12			125.00		$392		$2,250		$2,642
	Install Double Wide Trailer	**1**	**LOT**		**8,057**	**$37.37**					**$301,060**		**$18,360**		**$319,420**

SUPPORT CONTRACTOR - Stated in FY01 DOLLARS

PROJECT: New Trailer Complex
ESTIMATE NO.: IH-2001-05-001 R1
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 14-May-01
ESTIMATO E. Lumbert
LOCATION: FERNALD
TASK NO.: APRJ2

PPE LEVEL	Install Triplex	QTY	UNIT	MAN-HOURS			COST / UNIT				LABOR	S/C	MAT'L	EQUIP	TOTAL
				Unit	Total	Rate	Labor	S/C	Mat'l	Equip					
D	Labor assoc w/ Purchase of Trip	1	ea	2.000	2	36.72					$84				$84
D	Block,Level, Join and Anchor	149	hr	1.000	170	36.72			2.00		$6,249		$298		$6,547
D	Skirting, Flashing & Sealing	56	hr	1.000	64	36.72			5.00		$2,363		$281		$2,644
D	Stairs, Handicap Access Ramps	68	hr	1.000	77	36.72			3.00		$2,835		$203		$3,038
D	Exterior Lighting	81	hr	1.000	93	38.12			1.25		$3,543		$102		$3,645
D	Electrical Tie -in	98	hr	1.000	112	38.12			1.25		$4,251		$122		$4,373
D	Honeywell Tie-in	45	hr	1.000	51	38.12			2.50		$1,962		$113		$2,075
D	Telephone Tie-in	45	hr	1.000	51	38.12			2.50		$1,962		$113		$2,075
D	Elect Portable Water Coolers	2	ea	1.000	2	38.12			125.00		$87		$250		$337
D	Plumbing Tie in	90	hr	1.000	103	26.40			5.00		$2,718		$450		$3,168
D	Heat race & Insulate	114	hr	1.000	130	38.12			3.50		$4,960		$398		$5,358
	Install Triplex	**1**	**LOT**		**857**	**$36.19**					**$31,010**		**$2,330**		**$33,340**

PROJECT: New Trailer Complex
ESTIMATE NO.: IH-2001-05-001 R1
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 14-May-01
ESTIMATO E. Lumbert
LOCATION: FERNALD
TASK NO.: APRJ2

PPE LEVEL	Install Restroom Trailers	QTY	UNIT	MAN-HOURS			COST / UNIT				LABOR	S/C	MAT'L	EQUIP	TOTAL
				Unit	Total	Rate	Labor	S/C	Mat'l	Equip					
D	Labor assoc w/Lease of Restrm	3	ea	3.000	10	36.72					$378				$378
D	Block,Level, Join and Anchor	319	hr	1.000	365	36.72			2.00		$13,390		$638		$14,028
D	Skirting, Flashing & Sealing	34	hr	1.000	39	36.72			5.00		$1,418		$169		$1,587
D	Stairs, Handicap Access Ramps	135	hr	1.000	154	36.72			3.00		$5,671		$405		$6,076
D	Exterior Lighting	68	hr	1.000	77	38.12			1.25		$2,943		$84		$3,027
D	Electrical Tie -in	101	hr	1.000	116	38.12			1.25		$4,415		$127		$4,542
D	Plumbing Tie in	203	hr	1.000	232	26.40			5.00		$6,115		$1,013		$7,128
D	Heat race & Insulate	195	hr	1.000	223	38.12			3.50		$8,503		$683		$9,186
	Install Restroom Trailers	**1**	**LOT**		**2,073**	**$20.66**					**$42,830**		**$3,120**		**$45,950**

PROJECT: New Trailer Complex
ESTIMATE NO.: IH-2001-05-001 R1
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 14-May-01
ESTIMATO E. Lumbert
LOCATION: FERNALD
TASK NO.: APRJ2

PPE LEVEL	Lease Dbl Wide Trailer (APRJ1	QTY	UNIT	MAN-HOURS Unit	MAN-HOURS Total	MAN-HOURS Rate	COST / UNIT Labor	COST / UNIT S/C	COST / UNIT Mat'l	COST / UNIT Equip	LABOR	S/C	MAT'L	EQUIP	TOTAL
	Note: All costs on this sheet are associated with APRJ1.														
D	Lease Double Wide Trailers (AF	18	ea						50,000				$900,000		$900,000
	Lease Dbl Wide Trailer (APRJ1	**1**	**LOT**										**$900,000**		**$900,000**

PROJECT: New Trailer Complex
ESTIMATE NO.: IH-2001-05-001 R1
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 14-May-01
ESTIMATO E. Lumbert
LOCATION: FERNALD
TASK NO.: APRJ2

PPE LEVEL	urchase Triplex Trailer (APRJ	QTY	UNIT	MAN-HOURS Unit	MAN-HOURS Total	MAN-HOURS Rate	COST / UNIT Labor	COST / UNIT S/C	COST / UNIT Mat'l	COST / UNIT Equip	LABOR	S/C	MAT'L	EQUIP	TOTAL
	Note: All costs on this sheet are associated with APRJ1.														
D	Purchase Triplex Trailer (APRJ	1	ea						67,500				$67,500		$67,500
	Purchase Triplex Trailer (APRJ	1	LOT										67,500		$67,500

PROJECT: New Trailer Complex
ESTIMATE NO.: IH-2001-05-001 R1
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 14-May-01
ESTIMATO E. Lumbert
LOCATION: FERNALD
TASK NO.: APRJ2

ITEM NO.	Lease Restroom Trailer (APRJ1	QTY	UNIT	MAN-HOURS Unit	MAN-HOURS Total	MAN-HOURS Rate	COST/UNIT Labor	COST/UNIT S/C	COST/UNIT Mat'l	COST/UNIT Equip	LABOR	S/C	MAT'L	EQUIP	TOTAL
	Note: All costs on this sheet are associated with APRJ1.														
D	Lease Restroom Trailer (APRJ1	3	ea						20,000				$60,000		$60,000
	Lease Restroom Trailer (APRJ1	**1**	**LOT**										**60,000**		**$60,000**

APPENDIX " A"

PROJECT: New Trailer Complex
ESTIMATE NO.: IH-2001-05-001 R1
CLIENT: DOE
WBS NO.: 1.1.A.D

SITE SPECIFIC

EFFICIENCY / MULTIPLIER ANALYSIS

DATE: 14-May-01
ESTIMATOR: E. Lumbert
LOCATION: FERNALD
TASK NO.: APRJ2

PERCENT OF INFLUENCE ON CHART MANHOURS

	40%	50%	60%	70%	80%	90%	100%	105%	110%	% OF INFLUENCE	WT'D VALUE	PROD. RESULT
CRAFT SKILL (NOTE 1)	POOR			FAIR			STD	V.GOOD	EXCELLENT	100.0%	12.0%	0.12
CRAFT AVAIL.(NOTE 1)		POOR		FAIR			STD			100.0%	8.0%	0.08
CLIMATE (NOTE 2)	SEVERE	ICE/SNOW			RAIN		+40 TO +85			90.0%	20.0%	0.18
PLANT ELEVATION		OVER 10,000FT			5,000' TO 10,000 FT		UNDER 5,000 FT			100.0%	5.0%	0.05
WORK SPACE	<---- MULTIPLE SHIFTS-			200 SF	250 SF	300 SF	350 SF			100.0%	10.0%	0.1
WORK WEEK							4-10s / 5-8s					
50 HOUR WORK WEEK	//// MULTIPLE-SHIFT ////			OVER 7 WEEKS	3 TO 7 WEEKS	UP TO 3 WEEKS				100.0%	15.0%	0.15
60 HOUR WORK WEEK	////	////	OVER 7 WEEKS	3 TO 7 WEEKS	UP TO 3 WEEKS							
SHIFTWORK 2ND SHIFT 3RD SHIFT			3RD SHIFT		2ND SHIFT		OR ONE SHIFT ONLY			100.0% 100.0%	3.0% 5.0%	0.03 0.05
PROJECT SIZE					400M MH AND UP	300M TO 400M MH	200M TO 300M MH	200M MH OR LESS		105.0%	4.0%	0.042
PLANT TYPE				REVAMP ONLY	REVAMP & NEW	NEW IN EXIST PLT	GRASS ROOTS			80.0%	8.0%	0.064
AREA/UNION INFLUENCE	STRONG		MILD		SOME		NONE			40.0%	10.0%	0.04
											100.0%	90.6%

NOTES.....
1. TURNOVER HAS BEEN CONSIDERED
2. FOR EXTERIOR WORK ONLY

EFFICIENCY (AS A % OFF CHART MANHOURS) 90.6%

MULTIPLIER - (TO BE APPLIED TO CHART M.H.'S TO OBTAIN SITE M.H.'S) 1.10

EFFICIENCY FACTORS

PROJECT New Trailer Complex
ESTIMATE IH-2001-05-001 R1
CLIENT: DOE
WBS NO.: 1.1.A.D

DATE: 12-May-01
ESTIMATOI E. Lumbert
LOCATION: FERNALD
TASK NO.: APRJ2

Fluor Fernald, Inc.

EXAMPLE:

STANDARD CHART MANHOURS =	NET	100
EFFICIENCY FACTORS:		
* SITE SPECIFIC (SEE APPENDIX A	10%	10.0
S/T = BASE UNIT MANHOURS		110
OVERTIME PRODUCTIVITY FACTOF	0.00%	0
(SEE DETAIL WORKSHEET BACK-UP)		110
* TASK SPECIFIC (confined space,	0.0%	0
high elevation, congestion, etc.)		110

* PPE SPECIFIC (Based on current data and estimating knowledge)

	PPE LEVEL											
	D		Mod.'D'		Mod. "C"		C		C+		B	
PRODUCTIVITY HOURS	MULTIPLIER	MH's	MULTIPLIER	MH's	MULTIPLIER	MH's	MULTIPLIER	MH's	MULTIPLIER	MH's	MULTIPLIER	MH's
(AS A %) / ADD MH's	4.00%	4	28.00%	31	66.00%	73	74.00%	81	96.00%	106	110.00%	121
LTIPLIER)/TOTAL HRS	1.04	114.4	1.28	140.8	1.66	182.6	1.74	191.4	1.96	215.6	2.10	231
TAL MULT. * SITE PRO	1.144		1.408		1.826		1.914		2.156		2.156	

NOTE : Use the Default Productivity Factor of 'mC' for working in a contaminated area if the Safety Level cannot be determined.

(SEE FD FERNALD ESTIMATING SERVICES REFERENCE MANUAL IM-6006 8.10)

Total hours worked in a specific PPE level divided by 10 hour working days = (PPE) ManDays to determine material cost of PPE's.
(SEE APPENDIX C - HEALTH PHYSICS)

	11.0	Man Days	14.0	Man Days	18.0	Man Days	19.0	Man Days	22.0	Man Days	23.0	Man Days

THESE EFFICIENCY FACTORS WERE APPLIED INDIVIDUALLY THROUGHOUT THE ESTIMATE AT A TASK SPECIFIC LEVEL, TO OBTAIN A MORE ACCURATE ACCOUNT OF OVERALL EFFICIENCY IMPACT DUE TO PPE REQUIREMENTS IN HANDLING CONTAMINATED AND HAZARDOUS WASTE.

APPENDIX "B"

EFFICIENCY FACTORS

PROJECT New Trailer Complex
ESTIMATE IH-2001-05-001 R1
CLIENT: DOE
WBS NO.: 1.1.A.D

DATE: 12-May-01
ESTIMATOI E. Lumbert
LOCATION: FERNALD
TASK NO.: APRJ2

PPE MULTIPLIER DEVELOPEMENT

	D	mD	mC	C	C+	B
CREW SIZE & MAKE-U STANDARD	7	7	7	7	7	7
WORKER-BUDDY	0	0	0	0	0	0
SUPPORT TEAM	0	0	0	0	0	0
TOTAL CREW	7	7	7	7	7	7
CREW SIZE RATIO	1.00	1.00	1.00	1.00	1.00	1.00
AVAILABLE WORK TIME FACTOR	0.96	0.78	0.70	0.70	0.68	0.68
PPE LABOR PRODUCTIVITY FACTOR	1	1	0.86	0.82	0.75	0.70
NET PRODUCTIVITY RATIO	0.96	0.78	0.602	0.574	0.51	0.476
NET PRODUCTIVITY MULTIPLIER	**1.04**	**1.28**	**1.66**	**1.74**	**1.96**	**2.10**

These factors were based on Tables 6.1 and 6.2, Moderate Work Efforts, 66F to 85F temperature of 'Hazardous Waste Cost Control' by R.A.Selg.
Modifications were made to reflect a 10 hour work day and no buddy system or support team for levels D, mC and C.
The worker-buddy and support team members, if required, may be covered under Construction Mgmt. (Rad Techs).

AVAILABLE WORK TIME FACTOR		D	mD	mC	C	C+	B
TOTAL WORK MINUTI 4 - 10's		600	600	600	600	600	600
ADDITN'L.SITE SAFETY MEETINGS	QUANTITY	1	1	1	1	1	1
	MINUTES	25	25	25	25	25	25
TOTAL		25	25	25	25	25	25
PPE DON & DOFFING	QUANTITY	0	0	3	3	3	3
(ADJUST LEVEL D per WORK PLAN	MINUTES	0	0	15	15	20	20
TOTAL			0	45	45	60	60
WORK BREAKS	QUANTITY	N/A	2	2	2	2	2
(ADJUST LEVEL D per WORK PLAN	MINUTES	N/A	15	15	15	15	15
TOTAL			30	30	30	30	30
MOBILIZATION - ROUND TRIPS	QUANTITY	N/A	4	4	4	4	4
(ADJUST LEVEL D per WORK PLAN	MINUTES	N/A	15	15	15	15	15
TOTAL			60	60	60	60	60
COOLDOWNS PER DAY	QUANTITY	N/A	4	4	4	4	4
** (4 OUT OF 12 MONT 33.33%	MINUTES	N/A	15	15	15	15	15
TOTAL			20	20	20	20	20
AIR TANK REPLACEMENT	QUANTITY	N/A	N/A	N/A	N/A	N/A	N/A
	MINUTES	N/A	N/A	N/A	N/A	N/A	N/A
TOTAL							
AVAILABLE WORK TIME		575	465	420	420	405	405
AVAILABLE WORK TIME FACTOR		**0.96**	**0.78**	**0.7**	**0.7**	**0.68**	**0.68**

NOTE: Adjust 'Work Minutes per Day' basis to: 5 - 8's, or leave as 4 - 10's. Any other circumstances, over-ride the minutes per day.

** Assumption based on work performed in May, June, July & August, pro-rating cost over one year. Adjust % to individual circumstances.

APPENDIX "C"

HEALTH PHYSICS

PROJECT: New Trailer Complex
ESTIMATE NO IH-2001-05-001 R1
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 12-May-01
ESTIMATOR: E. Lumbert
LOCATION: FERNALD
TASK NO.: APRJ2

PPE's - PERSONAL PROTECTIVE EQUIPMENT

DESCRIPTION	UNIT	UNIT COST	* NO. OF CHANGE OUTS PER WORKER PER DAY / Man Days (TOTAL HOURS worked in PPE's Div. by WORK HOURS/DAY)			
PPE LEVEL C / C+		$'s	*	MAN DAYS	MAT'L.$'s	LEVEL
LAUNDRY COST per CHANGE	SET	1.96	1	0	$0	C/B
TYVEK COVER-ALL w/HOOD & BOOTIES - DIS	EA	4.46	3	0	$0	C/B
TYVEK COVER-ALL w/HOOD & BOOTIES - DIS	EA	4.46	3	0	$0	C/B
GLOVE LINER - DISPOSABLE	PR	0.24	3	0	$0	C/B
GLOVE, LASTEX - DISPOSABLE	PR	0.26	3	0	$0	C/B
GLOVE, WORK - DISPOSABLE	PR	1.02	3	0	$0	C/B
APR CARTRIDGES - DISPOSABLE, CLEANING	PR	9.38	3	0	$0	C/B
SUB-TOTAL				0	$0	
				$/MD =	#DIV/0!	

PPE LEVEL mC						
RESS w/ FACE SHIELD		$'s		MAN DAYS	MAT'L.$'s	LEVEL
LAUNDRY COST per CHANGE	SET	1.96	1	0	$0	mC
LT.WT. DISPOSABLE COVERALLS W/HOOD &	PR	4.46	3	0	$0	mC
GLOVE LINER - DISPOSABLE	PR	0.24	3	0	$0	mC
GLOVE, LASTEX - DISPOSABLE	PR	0.26	3	0	$0	mC
GLOVE, WORK - DISPOSABLE	PR	1.02	3	0	$0	mC
SUB-TOTAL				0	$0	mC
				$/MD =	#DIV/0!	

PPE LEVEL D						
LAUNDRY COST per CHANGE	SET	1.96	1	1254	$2,458	D

SUBCONTRACTOR REQUIRED PURCHASES	UNIT		QTY. PER WKR.	NO. OF WORKERS	MAT'L. $'s	LEVEL
RUBBER BOOT COVERS-(1)PR.PER WORKER	PR	12.70	6	0	$0	D/C/B
APR w/HALF FACE MASK - (1) PER WORKER	EA	22.30	6	0	$0	C
APR w/FULL FACE MASK - (1) PER WORKER	EA	174.00	6	0	$0	C
SCBA	EA	1894.00	2	0	$0	B
COOL VESTS	EA	137.50	6	0	$0	C/B
THERMO STRIPS	EA	50.00	6	0	$0	C/B
SUB-TOTAL					$0	C/B

Total PPE Matl $ and Laundry $	$2,500

(FORWARD TO PAGE 2 OF 2)

OTHER PPE's SUCH AS HARD HAT, SAFETY GLASSES/GOGGLES, STEEL TOED SAFETY SHOES, HEARING PROTECTION, ARE CONSIDERED THE SUBCONTRACTORS RESPONSIBILITY AND ARE COVERED IN HIS OVERHEAD EXPENSE. FD FERNALD SUPPLIED PPE's, SUCH AS COTTON COVERALLS, EXCHANGE OF RUBBER BOOT COVERS AND RESPIRATORS FOR CHANGEOUTS AND CLEANING OF SAME IS INCLUDED.

APPENDIX "C"

HEALTH PHYSICS

PROJECT: New Trailer Complex
ESTIMATE NO IH-2001-05-001 R1
CLIENT: DOE
WBS NO.: 1.1.A.D

DATE: 12-May-01
ESTIMATOR: E. Lumbert
LOCATION: FERNALD
TASK NO.: APRJ2

--MEDICAL MONITORING --

MEDICAL - PHYSICAL and IN-VIVO MONITORING - LOST WORKER TIME for RAD II WORKERS ONLY

DESC. PHYSICAL (3hrs), IN-VIVO (1hr)	QTY	HRS	WKR	TOTAL HOURS	AVG. LABOR RATE	TOTAL LABOR $
BASELINE PHYSICALS	1	4	28	112	$34.35	$3,850
ANNUAL PHYSICALS	0	4	28	0	$34.35	$0
EXIT (TERMINATION) PHYSICALS (IN-VIVO)	1	1	28	28	$34.35	$960
SUB-TOTAL						$4,810

RADIATION IN-VITRO SURVEILLANCE - LOST WORKER TIME for RAD II WORKERS ONLY

DESC.	QTY	HRS	WKR	TOTAL HOURS	AVG. LABOR RATE	TOTAL LABOR $
BI-MONTHLY BIOASSAY	2	1	28	48	$34.35	$1,660
SUB-TOTAL						$1,660

RANDOM DRUG TESTING

	TESTS	HRS	TOTAL HRS	AVG. RATE	LABOR $'s
	8	2	16	$34.35	$500

NO. OF WKRS. TESTED	TESTING DAYS PER YR.	AVG. NO. OF TESTS PER DAY	CHANCE/ DAY FOR TEST	NO. OF WKRS. FOR THIS ESTIMATE	CHANCES /DAY FOR TEST for this PROJECT	CONSTR WORKING DAYS
2500	226	11	0.0044	28	0.1232	66

		LABOR $'s THRU SAFETY	LABOR $'s
WORK DELAYS CAUSED BY MONITORING	1.0%	$615,520	$6,200
			LABOR $'s
WORK DELAYS CAUSED BY RAD CHECKING	1.0%	$615,520	$6,200

	TOTAL LABOR	TOTAL MAT'L	GRAND TOTAL
TOTAL HEALTH PHYSICS - FORWARD TO ESTIMATE SUMMARY SHEET	$19,400	$2,500	$21,900

APPENDIX "D"

ACTIVITY DURATIONS

PROJECT: New Trailer Complex
ESTIMATE NO.: IH-2001-05-001 R1
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 14-May-01
ESTIMATOR: E. Lumbert
LOCATION: FERNALD
TASK NO.: APRJ2

ACTIVITY	EST. DATE	START DATE	MID POINT	COMPL. DATE	ACTIVITY	DURATION
CONSTRUCTION:	12-May-01	01-Jan-04	22-Feb-04	15-Apr-04	3.5	MONTHS
					0	MONTHS
TOTAL					3.5	MONTHS

	DATE of EST. to MID-POINT CTIVITY DURATION	
a.	33.4	MONTHS
b.	0	MONTHS

ACTIVITY	EST. DATE	START DATE	MID POINT	COMPL. DATE	ACTIVITY	DURATION
OPERATIONS					0	MONTHS

DATE of EST. to MID-POINT CTIVITY DURATION	
0	MONTHS

ACTIVITY DURATION IS USED IN DETERMINING NUMBER of WORKERS for CERCLA/SAT TRAINING HOURS and HEALTH PHYSICS COSTS.

COST IMPACT MATRIX SHEET

Estimate No.: IH-2001-05-001 R1
Project: New Trailer Complex
Client: DOE
WBS: 1.1.A.D

Fluor Fernald, Inc.

Est. Chg. No.: APRJ2
Date: 12-May-01
Estimator: E. Lumbert
Location: FERNALD

Base Estimate Total	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
	Mobilization & Demobilization											
$2,028,270	LABOR $		S/C $		MAT'L. $		EQUIP. $		PPE $			
Cost Drivers	Base $	$14,760	Base $	$0	Base $	$220	Base $		Base $	$60	Base $	$0
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Productivity	-1%	8%										
Unit Pricing					-1%	8%	-1%	8%	-1%	8%		
Contamination												
Technology												
Regulations/Laws												
Quantity Variation												
Project Definition	-1%	5%										
Other												
Range - %	-2%	13%	0%	0%	-1%	8%	-1%	8%	-1%	8%	0%	0%
Range - $	$14,465	$16,679	$0	$0	$218	$238	#VALUE!	#VALUE!	$59	$65	$0	$0
Distribution	U											
Correlation Rank												

	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
	Site Development											
	LABOR $		S/C $		MAT'L. $		EQUIP. $		PPE $			
Cost Drivers	Base $	$102,950	Base $	$35,000	Base $	$184,020	Base $		Base $	$430	Base $	$0
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Productivity	-1%	15%										
Unit Pricing					-1%	12%	-1%	10%	-1%	8%		
Contamination							-1%	10%				
Technology												
Regulations/Laws												
Quantity Variation					-1%	5%						
Project Definition	-1%	5%	-1%	5%								
Other												
Range - %	-2%	20%	-1%	5%	-2%	17%	-2%	20%	-1%	8%	0%	0%
Range - $	$100,891	$123,540	$34,650	$36,750	$180,340	$215,303	#VALUE!	#VALUE!	$426	$464	$0	$0
Distribution												
Correlation Rank												

Analyst:

Client: [signature] 5/14/01

COST IMPACT MATRIX SHEET

Estimate No.: IH-2001-05-001 R1
Project: New Trailer Complex
Client: DOE
WBS: 1.1.A.D

Fluor Fernald, Inc.

Est. Chg. No.: APRJ2
Date: 12-May-01
Estimator: E. Lumbert
Location: FERNALD

	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
	Install Double Wide Trailer											
	LABOR $		S/C $		MAT'L. $		EQUIP. $		PPE $			
Cost Drivers	Base $	$415,340	Base $	$0	Base $	$20,460	Base $		Base $	$1,730	Base $	$0
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Productivity	-1%	15%										
Unit Pricing					-1%	10%	-1%	10%	-1%	8%		
Contamination	-1%	8%							-1%	8%		
Technology												
Regulations/Laws												
Quantity Variation					-1%	5%						
Project Definition	-1%	5%										
Other												
Range - %	-3%	28%	0%	0%	-2%	15%	-1%	10%	-2%	16%	0%	0%
Range - $	$402,880	$531,635	$0	$0	$20,051	$23,529	#VALUE!	#VALUE!	$1,695	$2,007	$0	$0
Distribution												
Correlation Rank												

	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
	Install Triplex											
	LABOR $		S/C $		MAT'L. $		EQUIP. $		PPE $			
Cost Drivers	Base $	$42,780	Base $		Base $	$2,600	Base $		Base $	$180	Base $	$0
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Productivity	-1%	12%										
Unit Pricing					-1%	8%	-1%	12%	-1%	8%		
Contamination	-1%	10%										
Technology												
Regulations/Laws												
Quantity Variation	-1%	5%			-1%	5%	-1%	5%				
Project Definition												
Other												
Range - %	-3%	27%	0%	0%	-2%	13%	-2%	17%	-1%	8%	0%	0%
Range - $	$41,497	$54,331	$0	$0	$2,548	$2,938	#VALUE!	#VALUE!	$178	$194	$0	$0
Distribution												
Correlation Rank												

Analyst: _____

Client: _____

COST IMPACT MATRIX SHEET

Estimate No.: IH-2001-05-001 R1
Project: New Trailer Complex
Client: DOE
WBS: 1.1.A.D

Fluor Fernald, Inc.

Est. Chg. No.: APRJ2
Date: 12-May-01
Estimator: E. Lumbert
Location: FERNALD

	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
	Install Restroom Trailers											
	LABOR $		S/C $		MAT'L. $		EQUIP. $		PPE $			
Cost Drivers	Base $	$59,090	Base $	$0	Base $	$3,480	Base $		Base $	$250	Base $	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Productivity	-1%	12%										
Unit Pricing					-1%	8%	-1%	8%	-1%	8%		
Contamination	-1%	5%										
Technology												
Regulations/Laws												
Quantity Variation					-1%	5%						
Project Definition												
Other												
Range - %	-2%	17%	0%	0%	-2%	13%	-1%	8%	-1%	8%	0%	0%
Range - $	$57,908	$69,135	$0	$0	$3,410	$3,932	#VALUE!	#VALUE!	$248	$270	$0	$0
Distribution												
Correlation Rank												

	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
	Lease Dbl Wide Trailer (APRJ1)											
	LABOR $		S/C $		MAT'L. $		EQUIP. $		PPE $			
Cost Drivers	Base $	$0	Base $	$0	Base $	$1,002,850	Base $		Base $	$0	Base $	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Productivity	-1%	12%										
Unit Pricing					-1%	8%	-1%	5%	-1%	5%		
Contamination	-1%	8%					-1%	8%				
Technology												
Regulations/Laws												
Quantity Variation												
Project Definition												
Other												
Range - %	-2%	20%	0%	0%	-1%	8%	-2%	13%	-1%	5%	0%	0%
Range - $	$0	$0	$0	$0	$992,822	$1,083,078	#VALUE!	#VALUE!	$0	$0	$0	$0
Distribution												
Correlation Rank												

Analyst: _____

Client: _____

COST IMPACT MATRIX SHEET

Estimate No.: IH-2001-05-001 R1
Project: New Trailer Complex
Client: DOE
WBS: 1.1.A.D

Fluor Fernald, Inc.

Est. Chg. No.: APRJ2
Date: 12-May-01
Estimator: E. Lumbert
Location: FERNALD

	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
	Purchase Triplex Trailer (APRJ1)											
	LABOR $		S/C $		MAT'L. $		EQUIP. $		PPE $			
Cost Drivers	Base $	$0	Base $	$0	Base $	$75,210	Base $		Base $	$0	Base $	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Productivity	-1%	12%										
Unit Pricing					-1%	20%	-1%	20%	-1%	20%		
Contamination	-1%	10%			-1%	10%	-1%	20%	-1%	20%		
Technology												
Regulations/Laws												
Quantity Variation	-1%	8%										
Project Definition												
Other												
Range - %	-3%	30%	0%	0%	-2%	30%	-2%	40%	-2%	40%	0%	0%
Range - $	$0	$0	$0	$0	$73,706	$97,773	#VALUE!	#VALUE!	$0	$0	$0	$0
Distribution												
Correlation Rank												

	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
	Lease Restroom Trailer (APRJ1)											
	LABOR $		S/C $		MAT'L. $		EQUIP. $		PPE $			
Cost Drivers	Base $	$0	Base $	$0	Base $	$66,860	Base $	$0	Base $	$0	Base $	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Productivity	-1%	12%										
Unit Pricing					-1%	20%	-1%	20%	-1%	20%		
Contamination	-1%	10%			-1%	10%	-1%	20%	-1%	20%		
Technology												
Regulations/Laws												
Quantity Variation	-1%	8%										
Project Definition												
Other												
Range - %	-3%	30%	0%	0%	-2%	30%	-2%	40%	-2%	40%	0%	0%
Range - $	$0	$0	$0	$0	$65,523	$86,918	$0	$0	$0	$0	$0	$0
Distribution												
Correlation Rank												

Analyst: _____

Client: _____

WBS DICTIONARY
CONTROL ACCOUNT/CHARGE NUMBER

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.A.D	FACILITY PROJECTS	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		05/01 - 11/01
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
APRJ3	HEALTH AND SAFETY BUILDING RELOCATION	

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Subcontractors
Materials
ODC's

b. TECHNICAL CONTENT:

- MEDICAL COMPLEX
  This project provides for the installation of a six-plex trailer including all civil, structural, mechanical, electrical, communications, and installation activities. This six-plex Medical Complex will accommodate the relocation of the FEMP Medical Department personnel and functions, including: Medical Records, Drug Testing, Vision Testing, Pulmonary Function Testing, Hearing Testing, EKG Testing, Respirator Fit Testing, Physicals, Lab analysis, and Emergency Treatment and X-Ray

- COMMUNICATIONS CENTER
  This scope contains activities for the installation, and hookup of a trailer for use as the new Communications Center. This scope also includes all civil, structural, mechanical, electrical, communications, materials, and installation activities associated with the Communication Center.

- T-45/T-46 RENOVATION
  This scope contains activities for construction improvements of Trailer T-45 and T-46 including all structural, mechanical, electrical, communications, materials, and installation activities.

- BUILDING 44A (T-1) RENOVATION
  This scope contains activities for construction of new conference rooms within Building 44A including all structural, mechanical, electrical,

Project Manager	Control Account Manager	Control Team Manager
L Hampshire	R Nichols	Rodney A Whitaker

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.A.D	FACILITY PROJECTS	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		05/01 - 11/01
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
APRJ3	HEALTH AND SAFETY BUILDING RELOCATION	

14. ELEMENT TASK DESCRIPTION

communications, materials, and installation activities required for these conference rooms.

- SERVICES BUILDING RENOVATION
  This scope contains activities for construction improvements to Service Building (11). This scope includes electrical, architectural, materials, and installation required for these improvements.

c. SCOPE OF WORK:

MEDICAL COMPLEX

This scope of work is to install one six-plex trailer, approximately 5,000 square feet, in the existing parking lot south of T-80:

- Mobilize job boxes and materials.
- Establish traffic control for movement of trailer sections.
- Block, level, join, and anchor trailer sections per "typical" engineered drawings.
- Install sealant and flashing to provide weather tight installation.
- Install exterior lighting and emergency exit lights as engineered.
- QA/system test utilities.
- Install skirting, stairs and handicap access ramps.
- Repair any damage to paved surface from trenching/excavation work.
- Demobilization.

Install Utilities:

- Install and tie-in approximately 330 feet of 6 inch HDPE fire water piping.
- Install and tie-in approximately 330 feet of 2 inch drinking water piping.
- Install and tie-in approximately 230 feet of 6 inch sanitary sewer piping to Lift station SMH 163.
- Purchase and install one new electrical pole.
- Install and tie-in approximately 100 feet of overhead 480v cable.
- Install and tie-in approximately 100 feet of overhead communication/telephone

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.A.D	FACILITY PROJECTS	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		05/01 - 11/01
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
APRJ3	HEALTH AND SAFETY BUILDING RELOCATION	

14. ELEMENT TASK DESCRIPTION

lines.
- Install and tie-in approximately 100 feet of Honeywell fire alarm system line.

COMMUNICATION CENTER

- Site prep for new trailer 10' x 40'.
- Install new aerial 13.200/480volt electrical power supply (transformers).
- Install single-wide communication center, which includes HVAC, electrical power distribution, lighting, and fire alarm system.
- Hook-up electrical service, communications and fire alarm system.
- Install area lighting and sidewalls.
- Relocate radio base stations, antennas and cabling to the base stations.
- Relocate lightning pre-warning equipment.
- Relocate existing operator console and associated equipment.
- Relocate Honeywell Delta 1000 (cpu), associated computers, board bridges, batteries, fire alarm panels, including all field and interconnection wiring.
- Relocate universal power supply (ups).
- Install a new 400 pair cable from the existing telephone room in the Admin. Building to the communication center.
- Install LAN wiring and connection for two work-stations.

T-45/T-46 RENOVATION

- Mobilize job boxes, tools, materials and equipment.
- Remove trailer skirting.
- Install conduit from LPA & B to Room # 01.
- Install three electrical outlet power strips.
- Rewire electrical services wiring.
- Install electrical junction box for fume hood.
- Pull wire and terminate.
- Install fume hood with side wall exhaust stack.
- Lockout/tag out LPA & B.
- Tie-in electrical.
- Remove lockout tag out.
- Install 4' x 5' x 3/4" plywood floor support for Sheppard Calibrator.

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.A.D	FACILITY PROJECTS	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		05/01 - 11/01
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
APRJ3	HEALTH AND SAFETY BUILDING RELOCATION	

14. ELEMENT TASK DESCRIPTION

- Replace existing support piers.
- Install additional support piers for calibrator.
- Re-install trailer skirting.
- Relocate security fence south of the T-45 west entrance door.
- Relocate interior hard wall.
- Demobilize.

BUILDING 44A (T-1) RENOVATION

- Mobilize job boxes and materials.
- Lock and Tag electrical trailer feed at determined location.
- Construct new walls to enclose conference room area.
- Install accordion style wall for use as a divider for conference room.
- Reconfigure lighting to enable lights to be turned on running east to west instead of existing north to south configuration.
- Install new lights where needed.
- Install electrical outlets in new walls per NEC.
- Install all smoke detectors, horns and strobes as required per Honeywell.
- Primer and paint all new surfaces.
- Fabricate and install 2 new sets of stairs on the north side of trailer.
- Remove carpeting.
- Reinstall sheet vinyl flooring.
- Remove walls obstructing exterior doors on north side of trailer.
- Remove lock and tag to restore power to trailer when all penetrations and electrical work is complete.
- QA/System test electrical and Honeywell.
- Demobilization.

SERVICES BUILDING RENOVATION

- Mobilize job boxes, tools, materials and equipment.
- Frame and close (plywood both side) Building 11 at the 2nd floor, east door.
- Lockout/tag out.
- Install exterior light above Building 11 first floor east door.
- Install conduit and wire to light.

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.A.D	FACILITY PROJECTS	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		05/01 - 11/01
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
APRJ3	HEALTH AND SAFETY BUILDING RELOCATION	

14. ELEMENT TASK DESCRIPTION

- Tie-in light and test.
- Remove existing first floor wooden double door.
- Install new metal double door. Install panic door hardware.
- Paint door.
- Demobilize.

d. WORK SPECIFICALLY EXCLUDED:

- Other resources required for planning, field and closeout activities that are not budgeted in their work scope will be budgeted in other charge numbers.
- Computer purchases and upgrades.
- Fluor Fernald General and Administrative Budget.

MEDICAL COMPLEX

- Personnel, furniture, and salvageable equipment relocation to be performed by the Maintenance Division.
- Upgrades or additional construction for site parking needs.
- Upgrades in the existing water supply lines as indicated on current drawings.
- Upgrades in the storm drainage system as indicated on current drawings.
- Upgrades in the existing sanitary sewage lines & lift station SMH 163 as indicated on current drawing.
- Outsourcing of Medical.

COMMUNICATIONS CENTER

- Maintenance Support Functions.
- Honeywell Support Functions.
- Relocation of furniture and equipment.

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.A.D	FACILITY PROJECTS	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		05/01 - 11/01
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
APRJ3	HEALTH AND SAFETY BUILDING RELOCATION	

14. ELEMENT TASK DESCRIPTION

T-45/T-46 RENOVATION

- Maintenance Support Functions.
- Honeywell Support Functions.
- Relocation of furniture and equipment.

BUILDING 44A (T-1) RENOVATION

- Maintenance Support Functions.
- Honeywell Support Functions.
- Relocation of furniture and equipment.

SERVICES BUILDING RENOVATION

- Maintenance Support Functions.

SECTION 3

1.0 NARRATIVE

1. PROJECT TITLE: FACILITY AND PROJECT SUPPORT	2. DATE: 09/10/01	3. PBS#: 01
4. WBS ELEMENT CODE: 1.1.A.D	5. WBS ELEMENT TITLE: FACILITY PROJECTS	
6. CAM NAME/ PHONE: ROBERT HAMMACK	7. CAM SIGNATURE:	
8. ORIGINAL/ CHANGE SCOPE/ PER CP#:	9. CONTROL ACCOUNT: APRJ	

R1-F01-037

PART 4: APRJ – FACILITY PROJECTS
Section 3: APRJ3 – Health and Safety Building Relocation

1.0 NARRATIVE

1.1 OVERVIEW

1.1.1 Medical Complex

R1-F01-037

This project provides for the purchase and installation of a ~~four~~six-plex trailer.

1.1.2 Communications Center

This scope contains activities for the purchase and installation of a new Communications Center including all structural, mechanical, electrical, materials, and installation required for this new facility.

1.1.3 T-45/T-46 Renovation

R1-F01-037

This scope contains activities for construction renovations of Trailer T-45 and ~~the~~ personnel relocation only of T-46 including all structural, mechanical, electrical, communications, materials and installation required for this renovation.

1.1.4 Building 44A (T-1) Renovation

R1-F01-037

This scope contains activities for construction of new conference rooms within Building 44A including all structural, mechanical, electrical, ~~Honeywell~~communications, materials and installation, required for these conference rooms.

1.1.5 Services Building Renovation

This scope contains activities for construction improvements to Service Building (11). This scope includes electrical, architectural, materials, and installation required for these improvements.

1.2 ASSUMPTIONS/EXCLUSIONS

1.2.1 Assumptions

1.2.1.1 Medical Complex

- Assumes field work starts in FY01

R1-F01-037

- Assumes the ~~four~~six-plex trailer will be located in the existing parking lot south of T-80 (Drawing No. 00X-5500X02085)

R1-F01-037

- Assumes the ~~four~~six-plex will accommodate the FEMP Medical Department personnel and functions (includes: Medical Records, Drug Testing, Vision Testing, Pulmonary Function Testing, Hearing Testing, EKG Testing, Respirator Fit Testing, Physicals, Lab analysis, and Emergency Treatment and X-Ray)

R1-F01-037

- Assumes that the ~~four~~six-plex trailer will be used until the end of the closure contract

R1-F01-037

- Assumes subcontractor support for electrical, Honeywell, and communications installation

- Assumes that purchase price includes delivery of the units

- Assumes the trailer purchase price includes restroom facilities to accommodate urinalysis, drug testing, additional medical testing associated with physicals, and personnel located in the Medical trailer

- Assumes the trailer purchase price includes extra structural floor support for Hearing Test Booth and Medical Records (Remstar Filing Systems)

- Assumes the physical layout of the purchased trailer is adequate and no renovation is required

- Manpower calculations are based on the following four possible sources: Historical Data (HD), Industry Standard (IS), Composite of HD & IS (Comp), and Professional Judgement (PJ). See Quantification Table for calculations by work scope activity/sub activity

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- Other Direct Costs (ODCs) are based on FY00 actual cost of work performed and budgeted manpower (FTEs). ~~, as follows: ODC$s/FTEs. Minimum of $100/FTE will be used if FY00 calculations are < $100/FTE.~~ See Section 1.5 for quotient, by work scope function

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- ~~Premium~~ Overtime is based on FY00 actual cost of work performed overtime hours (OT) and regular (Reg) hours, as follows: OT/Reg. See Section 1.5 for quotient, by work scope function

- Material rates are broken down into two parts: 1-General Materials and 2-Additional Materials. General Materials are based on data supplied by Estimating Services. Additional Materials are based on FY00 ACWP data. See section 1.5 for materials rates.

- Subcontractor dollars are based on existing subcontracts at time of this baseline and anticipated new subcontracts not currently in place.

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- Dollar amounts are unescalated
- All calculations for manpower, subcontracts, materials, and ODCs are based on a 12-month year for 2002, 2003, 2004, 2005, 2006, 2007, 2008, and 2009
- All overtime is planned overtime
- Assume that all work activities are based on a 40-hour workweek
- The basis of this estimate assumes the use of Remediation Schedule, and Execution 6 Scenario
- Sales Tax @ 6% for all taxable items
- Estimate is expressed in FY01 dollars
- Estimate represents budget for the length of this charge number

1.2.1.2 Communications Center

- Assumes work will be performed by Labor Hour Support Contractor
- Only television camera feeds sent via telephone wires will be relocated
- The site telephone operator will be relocated to the Administration Building

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- Dollar amounts are unescalated
- All calculations for manpower, subcontracts, materials, and ODCs are based on a 12-month year for 2002, 2003, 2004, 2005, 2006, 2007, 2008, and 2009
- All overtime is planned overtime
- Assume that all work activities are based on a 40-hour workweek
- The basis of this estimate assumes the use of Remediation Schedule, and Execution 6 Scenario
- Sales Tax @ 6% for all taxable items
- Estimate is expressed in FY01 dollars

- Estimate represents budget for the length of this charge number

1.2.1.3 T-45/T-46 Renovation

- Assumes work will be performed by Labor Hour Support Contractor
- Assumes roof, floor and doors do not need major repair or replacement

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- Dollar amounts are unescalated
- All calculations for manpower, subcontracts, materials, and ODCs are based on a 12-month year for 2002, 2003, 2004, 2005, 2006, 2007, 2008, and 2009
- All overtime is planned overtime
- Assume that all work activities are based on a 40-hour workweek
- The basis of this estimate assumes the use of Remediation Schedule, and Execution 6 Scenario
- Sales Tax @ 6% for all taxable items
- Estimate is expressed in FY01 dollars
- Estimate represents budget for the length of this charge number

1.2.1.4 Building 44A (T-1) Renovation

- Assumes future need for conference rooms
- Assumes work will be performed by Labor Hour Support Contractor
- Assumes roof, floor and doors do not need major repair or replacement

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- Dollar amounts are unescalated
- All calculations for manpower, subcontracts, materials, and ODCs are based on a 12-month year for 2002, 2003, 2004, 2005, 2006, 2007, 2008, and 2009
- All overtime is planned overtime
- Assume that all work activities are based on a 40-hour workweek
- The basis of this estimate assumes the use of Remediation Schedule, and Execution 6 Scenario
- Sales Tax @ 6% for all taxable items
- Estimate is expressed in FY01 dollars
- Estimate represents budget for the length of this charge number

1.2.1.5 Services Building Renovation

- Assumes work will be performed by Labor Hour Support Contractor

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- Dollar amounts are unescalated
- All calculations for manpower, subcontracts, materials, and ODCs are based on a 12-month year for 2002, 2003, 2004, 2005, 2006, 2007, 2008, and 2009
- All overtime is planned overtime
- Assume that all work activities are based on a 40-hour workweek
- The basis of this estimate assumes the use of Remediation Schedule, and Execution 6 Scenario
- Sales Tax @ 6% for all taxable items
- Estimate is expressed in FY01 dollars

- Estimate represents budget for the length of this charge number

1.2.2 Exclusions

1.2.2.1 Medical Complex

- Excludes personnel, furniture, and salvageable equipment relocation to be performed by the Maintenance Division

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- ~~Excludes installation of major medical equipment~~
- Excludes upgrades or additional construction for site parking needs
- Excludes upgrades in the existing water supply lines as indicated on current drawings
- Excludes upgrades in the storm drainage system as indicated on current drawings
- Excludes upgrades in the existing sanitary sewage lines & lift station SMH 163 as indicated on current drawing
- Excludes outsourcing of Medical

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- Computer purchases and upgrades
- Does not include Fluor Fernald General Administrative Cost

1.2.2.2 Communications Center

- Excludes Maintenance Support Functions
- Excludes Honeywell Support Functions
- Excludes relocation of furniture and equipment
- ~~Excludes overtime~~

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- Computer purchases and upgrades
- Does not include Fluor Fernald General Administrative Cost

1.2.2.3 T-45/T-46 Renovation

- Excludes Maintenance Support Functions
- Excludes Honeywell Support Functions
- Excludes relocation of furniture and equipment
- ~~Excludes overtime~~

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- Computer purchases and upgrades
- Does not include Fluor Fernald General Administrative Cost

1.2.2.4 Building 44A (T-1) Renovation

- Excludes Maintenance Support Functions
- Excludes Honeywell Support Functions
- Excludes relocation of furniture and equipment
- Computer purchases and upgrades
- Does not include Fluor Fernald General Administrative Cost

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1.2.2.5 Services Building Renovation

- Excludes Maintenance Support Functions
- ~~Excludes overtime~~
- Computer purchases and upgrades
- Does not include Fluor Fernald General Administrative Cost

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1.2.3 Government-Furnished Equipment/Services

None

1.3 DRIVERS

- The site accelerated D&D schedule which presently requires the S&H Building (53A) to be dismantled in February of 2002

1.4 PROJECT PHYSICAL DESCRIPTION

1.4.1 Medical Complex

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The new Medical complex will be located South of T-~~81 on~~ 80 on the existing paved surface, which is currently being used as a parking lot.

1.4.2 Communications Center

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The new Communications Center will be located in the grassy area North of the TACO Area, West of the Administration Building ~~and East of Trailer – 76~~.

1.4.3 T-45/T-46 Renovation

The renovation of Trailer 44 and Trailer 45 will occur in the existing location of the trailers. The trailers are currently located East of the lab Building and West of Trailer – 24.

1.4.4 Building 44A (T-1) Renovation

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The renovation of Trailer 44A will occur in the existing location of the trailer. The trailer is currently located East of the remediated Security facility and ~~North~~ South of the Garage.

1.4.5 Services Building Renovation

The renovation of the Services Building will occur in the existing location of the Building. The Building is currently located West of the Health and Safety Building and East of the Laboratory Facility.

1.5 PROJECT PLAN/TECHNICAL SCOPE AND QUANTIFICATION

1.5.1 Medical Complex

1.5.1)1 Plan/Scope

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- This scope of work is to purchase one (1) ~~four~~six-plex trailer, ~~60'L~~ 65'L x ~~90'W~~84'W, and install it in the existing parking lot south of T-80:
  - Mobilize job boxes and materials
  - Establish traffic control for movement of trailer sections
  - Block, level, join, and anchor trailer sections per Typical engineered drawings
  - Install sealant and flashing to provide weather tight installation
  - Install exterior lighting and emergency exit lights as engineered
  - QA/system test electrical and Honeywell
  - Install skirting, stairs and handicap access ramps
  - Repair any damage to paved surface from trenching/excavation work
  - Demobilization
- Install Utilities:

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  - Install and tie-in approximately 330 feet of 6 inch fire protection piping
  - Install and tie-in approximately 330 feet of 2 inch drinking water piping
  - Install and tie-in approximately 230 feet of 6 inch sanitary sewer piping to Lift station SMH 163
  - Purchase and install one (1) new electrical pole
  - Install and tie-in approximately 100 feet of overhead 480v cable
  - Install and tie-in approximately 100 feet of overhead communication/telephone lines
  - Install and tie-in approximately 100 feet of Honeywell fire alarm system line

- The scope of work for this charge number will require support for planning activities from the following organizations/resources which are budgeted in another cost account:

  - Engineering for Title 1 and II
  - Project Engineer
  - CCM
  - CE
  - Maintenance
  - Acquisitions
  - IH Engineer
  - RAD Engineer

- The scope of work for this charge number will require support for field and close out activities from the following organizations/resources which are budgeted in another cost account:

  - CCM
  - CE
  - Rad Engineer
  - Maintenance
  - WAO
  - Waste Generator Services

- The scope of work for this charge number will require support for activities from the following organizations/resources which are included in this cost account:

  - Safety Representative
  - Radiological Technicians
  - IH Technicians
  - Quality Assurance/Quality Control Technician

- Materials:

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  - 120 ABS Pads
  - 330' HDPE Pipe
  - 330' PVC pipe
  - 230' sanitary pipe
  - 100' 480v cable
  - 1 transformer
  - 100' each fiber option and copper cable
  - 60 Auger Anchors
  - 60 Strap Kits
  - 90 Wood Shims (oak)

- Aluminum Strips for middle of floor between sections
- Miscellaneous nails, screws, etc.

Table 1.5.1)~~2~~1 – Medical Complex Quantification Table
Health and Safety Building Relocation
Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity/Material/ODC	Sub-Activity	Calc Type	Calculations
Activity: This scope of work is to install one (1) ~~four~~six-plex trailer, 60~~5~~'L x ~~90'W~~84'W, in the existing parking lot south of T-80. **General Materials:** $ 594/FTE **Additional Materials:** ELECTRICAL 1) Transformer 2) Rain shield 3) Transformer Lug kit 4) 200 amp disconnect 5) Wire, conduit & misc. material 6) Honeywell &communication **Skirting, Pads, & Anchoring Material, and Concrete block** **Plumbing Material** 1) Underground material and valves 2) Material for beneath trailers **Equipment Rentals** 1) Backhoe for trenches 2) Bucket truck with operator 3) Auger truck with operator 4) Bobcat with 6" auger	Mobilize job boxes and materials	HD &PJ	.18 LABORER .25 OPERATOR .06 SUPERVISOR .03 SAFETY .1 CSNCOORD
(Continued) **Overtime: This account assumes a 9.97% overtime rate Radiological Technician and a 9.09% Safety Engineer at time and a half (1.5x). Data is based on historical data and professional judgement**	Establish traffic control for movement of trailer sections	HD &PJ	.06 SUPERVISOR .03 SAFETY .16 UE .18 LABORER .1 CSNCOORD
	Block, level, join, and anchor trailer sections per Typical engineered drawings	HD &PJ	1 CARPENTER .18 LABORER ~~.66 INSUL~~ .25 OPERATOR .06 SUPERVISOR .03 SAFETY .5 RAD TECH .1 CSNCOORD

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Table 1.5.1~~)~~21 – Medical Complex Quantification Table
Health and Safety Building Relocation
Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity/Material/ODC	Sub-Activity	Calc Type	Calculations
	Install sealant and flashing to provide weather tight installation	HD &PJ	.66 INSULATOR .18 LABORER .06 SUPERVISOR .03 SAFETY .25 IH TECH
	Install exterior lighting and emergency exit lights as engineered	HD &PJ	.33 ELECTRICIAN .06 SUPERVISOR .03 SAFETY
	QA/system test electrical and Honeywell	HD &PJ	.33 ELECTRICIAN .06 SUPERVISOR .16 UE .03 SAFETY .07 QA .1 CSNMGR .1 CSNCOORD
	Install skirting, stairs and handicap access ramps	HD &PJ	1 CARPENTER .18 LABORER .06 SUPERVISOR .03 SAFETY .07 QA
	Repair any damage to paved surface from trenching/excavation work	HD &PJ	.18 LABORER .25 OPERATOR .06 SUPERVISOR .03 SAFETY RAD TECH
~~**Additional Material Cost - $23,000**~~ **ODC's** *ODC 600:* None *ODC 700:* None *ODC Travel:* None **Subcontractors:** *Wise Construction ~~$604,000~~ 715,120 total for APRJ3 **Additional Material Cost - $42,730** Other Subs = $36,000 Equip = $850,000	Demobilization	HD &PJ	.18 LABORER .06 SUPERVISOR .03 SAFETY .5 RAD TECH .25 IH TECH .07 QA .1 SNCOORD .1 CSNMGR
	Install and tie-in approximately 330 feet of 2 inch drinking water piping	HD &PJ	1 PIPEFITTER .18 LABORER .66 INSULATOR .06 SUPERVISOR .03 SAFETY
	Install and tie-in approximately 230 feet of 6 inch sanitary sewer piping to Lift station SMH 163	HD &PJ	1 PIPEFITTER .18 LABORER .66 INSULATOR .06 SUPERVISOR .03 SAFETY
	Purchase and install one (1) new electrical pole	HD &PJ	1 ACQUIS .18 LABORER .25 OPERATOR .33 ELECTRICIAN .06 SUPERVISOR .03 SAFETY .07 QA

Table 1.5.1)~~2~~1 – Medical Complex Quantification Table
Health and Safety Building Relocation
Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity/Material/ODC	Sub-Activity	Calc Type	Calculations
	Install and tie-in approximately 100 feet of overhead 480v cable	HD &PJ	.33 ELECTRICIAN .18 LABORER .25 OPERATOR .06 SUPERVISOR .03 SAFETY .07 QA
	Install and tie-in approximately 100 feet of overhead communication/telephone lines	HD &PJ	.33 ELECTRICIAN .06 SUPERVISOR .03 SAFETY .07 QA
	Install and tie-in approximately 100 feet of Honeywell fire alarm system line	HD &PJ	.33 ELECTRICIAN .16 UE .06 SUPERVISOR .03 SAFETY .07 QA

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1.5.2 Communications Center

1.5.2)1 Plan/Scope

- Site prep for new ~~building~~trailer 10' x 40'

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~~□Install structural foundation, plumbing, fire line and electrical ground grid~~

- Install new aerial 13.200/480volt electrical power supply (transformers)

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- Erect ~~pre-fab~~10'x40' trailer communication center ~~(free standing building),~~ which includes HVAC, electrical power distribution, ~~lighting sprinklers, raised floor, restrooms, breakroom, supervisors office,~~ and fire alarm system

- Hook-up electrical service, plumbing, and fire line (FQ)

- Install area lighting and sidewalks

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- ~~Excavate and pour concrete foundations for radio tower, including tower erection,~~ rRelocate base stations, antennas and cabling to the base stations

- Relocate lightning pre-warning equipment

- Relocate existing operator console and associated equipment

- Relocate Honeywell Delta 1000 (cpu), associated computers, board bridges, batteries, fire alarm panels, Radiation Detection Alarms, including all field and interconnection wiring

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- Relocate UPS~~standby electrical generator, ups, aux. fuel storage tank and auto transfer switch~~

- Install a new 400 pair cable from the existing telephone room in the Admin. Building to the communication center

- Install LAN wiring and connection for two work-stations

- The scope of work for this charge number will require support for planning activities from the following organizations/resources which are budgeted in another cost account:

  - Engineering for Title 1 and II
  - Project Engineer
  - CCM
  - CE
  - Safety Engineer
  - Acquisitions
  - IH Engineer
  - RAD Engineer

- The scope of work for this charge number will require support for field and close out activities from the following organizations/resources which are budgeted in another cost account:
  - CCM
  - CE
  - Rad Engineer
  - Engineering for Title III
  - WAO
  - Waste Generator Services

- The scope of work for this charge number will require support for activities from the following organizations/resources which are included in this cost account:

  - Safety Representative
  - Radiological Technicians
  - Industrial Hygiene Technicians
  - Quality Assurance/Quality Control Technician

- Materials required for the construction will be estimated per the scope of work. Any tools and equipment required should be on hand and readily available:

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  - ~~Pre-fabricated Building~~
  - Radio Antennae Tower
  - 13.2 kv transformers and associated equipment
  - ~~Concrete and rebar~~
  - Electrical grounding materials
  - ~~Underground piping(water, sewer, fire protection)~~
  - Radio antennae and wiring
  - Overhead electrical and phone wiring
  - Miscellaneous items

Table 1.5.2)2 – Communications Center Quantification Table
Health and Safety Building Relocation
Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity/Material/ODC	Sub-Activity	Calc Type	Calculations
Activity: This scope of work is to perform relocation of the communication center. This scope contains activities for the installation of a new Communications Center including all structural, mechanical, electrical, materials, and installation required for this new facility.	Site prep for new building	HD &PJ	.13 LABORER .07 OPERATOR .1 CARPENTER .03 SUB. SUPV. .03 SUB. SAFETY .2 IH TECH. .5 SAFETY ENG. .2 QA/QC TECH. .4 RAD TECH.
General Materials: $ 594/FTE **Additional Materials:** 1)~~Prefabricated Building~~ 2)Radio Antenna Tower 3)13.2 kv Transformers and associated equipment 4)~~Concrete and Rebar~~ 5)Electrical Grounding materials 6)~~Underground piping~~ 7)Overhead Electrical wiring 8) Overhead fiber/copper wiring	~~Install structural foundation, plumbing, fire line and~~ eElectrical ground	HD &PJ	.13 LABORER .07 OPERATOR .1 CARPENTER .2 PIPE FITTER .6 ELECT. .03 SUB. SUPV. .03 SUB. SAFETY .2 IH TECH. .5 SAFETY ENG. .2 QA/QC TECH. .4 RAD TECH.
Additional Material cost $ ~~200,000~~ 169,960 Other Subs = $150,00 Equip = $38,000 Subcontractors: ~~Mobilcomm – $60,000~~ *See 1.5.2 ~~Wise Construction~~ ~~* See Table 1.5.5 for total Wise cost for all of Health & Safety Building Relocation (APRJ3)~~ **ODC's** *ODC 600* - None *ODC 700* - None *ODC Travel* - None Overtime This account assumes a 9.97% overtime rate Radiological Technician and a 9.09% Safety Engineer at time and a half (1.5x). Data is based on historical data and professional judgement	Install new aerial 13.200/480 volt electrical power supply (transformers)	HD &PJ	.6 ELECT. .03 SUB. SUPV. .03 SUB. SAFETY .2 IH TECH. .5 SAFETY ENG. .2 QA/QC TECH. .4 RAD TECH.
	Erect pre-fab communication center ~~(free standing building),~~ 10' x 40' trailer which includes HVAC, electrical power distribution, lighting ~~sprinklers, raised floor, restrooms, breakroom, supervisors office,~~ and fire alarm system	HD &PJ	.1 CARPENTER .2 IRON WORKER .07 PIPE FITTER .12 ELECTRICIAN .13 LABOR .03 SUB SUPERVISOR .03 SUB SAFETY .2 IH TECH. .5 SAFETY ENG. .2 QA/QC TECH. .4 RAD TECH

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Table 1.5.2)2 – Communications Center Quantification Table
Health and Safety Building Relocation
Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity/Material/ODC	Sub-Activity	Calc Type	Calculations
(Continued)	Hook-up electrical service, plumbing, and fire line (FQ)	HD &PJ	.07 PIPE FITTER .12 ELECTRICIAN .03 SUB SUPERVISOR .03 SUB SAFETY .2 IH TECH. .5 SAFETY ENG. .2 QA/QC TECH. .4 RAD TECH
	Install area lighting and sidewalks	HD &PJ	.07 OPERATOR .13 LABORER ~~.12~~ .25 ELECTRICIAN .03 SUB SUPERVISOR .03 SUB SAFETY .2 IH TECH. .5 SAFETY ENG. .2 QA/QC TECH. .4 RAD TECH
	Relocate lightning pre-warning equipment	HD &PJ	.6 ELECT. .03 SUB. SUPV. .03 SUB. SAFETY .2 IH TECH. .5 SAFETY ENG. .2 QA/QC TECH. .4 RAD TECH.
	Relocate existing operator console and associated equipment	HD &PJ	BY MOBILE TECH.
R1-F01-037	Relocate Honeywell Delta 1000 (cpu), associated computers, board bridges, batteries, fire alarm panels, ~~Radiation Detection Alarms,~~ including all field and interconnection wiring	HD &PJ	.6 ELECT. .03 SUB. SUPV. .03 SUB. SAFETY .2 IH TECH. .5 SAFETY ENG. .2 QA/QC TECH. .4 RAD TECH.
	Relocate UPS ~~stand by electrical generator, ups, aux. fuel storage tanks and auto transfer switch~~	HD &PJ	2 PIPE FITTER 4 LABORER 1.8 ELECTRICIAN .17 SUB SUPERVISOR .17 SUB SAFETY .2 IH TECH. .5 SAFETY ENG. .2 QA/QC TECH. .4 RAD TECH

Table 1.5.2)2 – Communications Center Quantification Table
Health and Safety Building Relocation
Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity/Material/ODC	Sub-Activity	Calc Type	Calculations
(Continued)	Install a new 400 pair cable from the existing telephone room in the Admin. Building to the communication center.	HD &PJ	~~.62~~ .62 ELECT. .03 SUB. SUPV. .03 SUB. SAFETY .2 IH TECH. .5 SAFETY ENG. .2 QA/QC TECH. .4 RAD TECH.
	Install LAN wiring and connection for two work-stations	HD &PJ	~~.6~~ 1.7 ELECT. .03 SUB. SUPV. .03 SUB. SAFETY .2 IH TECH. .5 SAFETY ENG. .2 QA/QC TECH. .4 RAD TECH.

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1.5.3 T-45/T-46 Renovation

1.5.3)1 Plan/Scope

- Mobilize job boxes, tools, materials and equipment
- Remove trailer skirting
- Install conduit from LPA & B to Room # 01
- Install (3) electrical outlet power strips
- Rewire electrical services wiring (R1-F01-037)
- Install electrical junction box for fume hood
- Pull wire and terminate
- Install fume hood with side wall exhaust stack
- Lockout/ tag out LPA & B
- Tie-in electrical
- Remove lockout tag out
- Install 4′ x 5′ x ¾″ plywood floor support for Sheppard Calibrator
- Replace existing support piers (R1-F01-037)
- Install additional support piers for calibrator
- Re-install trailer skirting
- Relocate security fence south of the T-45 west entrance door
- Demobilize

- The scope of work for this charge number will require support for planning activities from the following organizations/resources which are budgeted in another cost account:

  - Engineering for Title 1 and II
  - Project Engineer
  - CCM
  - CE
  - Maintenance
  - Safety Engineer
  - Acquisitions
  - IH Engineer
  - RAD Engineer

- The scope of work for this charge number will require support for field and close out activities from the following organizations/resources which are budgeted in another cost account:

  - CCM
  - CE
  - Rad Engineer
  - Maintenance
  - WAO
  - Waste Generator Services

- The scope of work for this charge number will require support for activities from the following organizations/resources which are included in this cost account:

  - Safety Representative
  - Radiological Technicians
  - IH Technicians
  - Quality Assurance/Quality Control Technician

- Materials required for renovation will be estimated per the scope of work. Any tools and equipment required should be on hand and readily available:

  - Fume hood and exhaust stack
  - Electrical items – conduit, wire, junction boxes, outlet power strips, breakers
  - Floor support material (plywood, piers, etc.)
  - Fence material (posts, fabric, & hardware)
  - Miscellaneous items

Table 1.5.3)2 – Trailer 45 and Trailer 46 Renovation Quantification Table
Health and Safety Building Relocaition
Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity/Material/ODC	Sub-Activity	Calc Type	Calculations
Activity: This scope of work is to renovate Trailers T-45 and T-46. **General Materials:** $ 594/FTE **Additional Materials:** 1) Fume hood and exhaust stack 2) Electrical items – conduit, wire, junction boxes, outlet power strip, breakers 3) Floor support material (plywood, piers, etc.) 4) Fence Material (post, fabric, and hardware) 5) Miscellaneous items Addition Material Cost - ~~$9,000~~ 19,180 **Subcontractor** *See 1.5.2 **ODC's** *ODC 600* - None *ODC 700* - None *ODC Travel* - None ~~Premium Overtime – None~~ – Overtime at 1.5x Rad Tech 5.99% and Safety Engineer 5.93% for Fluor Fernald Support only	Mobilize job boxes and materials	HD &PJ	.05 PIPE FITTER .03 LABORER .06 ELECTRICIAN .01 SUB SUPERVISOR .01 SUB SAFETY .01 IH TECH .02 SAFETY .01 QA/QC .02 RAD TECH
	Remove trailer skirting	HD &PJ	.04 CARPENTER .01 SUB SUPERVISOR .01 SUB SAFETY .01 IH TECH .02 SAFETY .01 QA/QC .02 RAD TECH
	Install conduit from LPA & B o room #01	HD &PJ	.~~06~~ 5 ELECTRICIAN .01 SUB SUPERVISOR .01 SUB SAFETY .01 IH TECH .02 SAFETY .01 QA/QC .02 RAD TECH
	Install (3) electrical outlet power strips Rewire electrical service wiring	HD &PJ	.~~06~~ 5 ELECTRICIAN .01 SUB SUPERVISOR .01 SUB SAFETY .01 IH TECH .02 SAFETY .01 QA/QC .02 RAD TECH
	Install electrical junction box for fume hood	HD &PJ	.~~06~~5 ELECTRICIAN .01 SUB SUPERVISOR .01 SUB SAFETY .01 IH TECH .02 SAFETY .01 QA/QC .02 RAD TECH
	Pull wire and terminate	HD &PJ	.~~06~~ 5 ELECTRICIAN .01 SUB SUPERVISOR .01 SUB SAFETY .01 IH TECH .02 SAFETY .01 QA/QC .02 RAD TECH

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Table 1.5.3)2 – Trailer 45 and Trailer 46 Renovation Quantification Table
Health and Safety Building Relocaition
Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity/Material/ODC	Sub-Activity	Calc Type	Calculations
(Continued)	Install fume hood with side wall exhaust stack		.06 ELECTRICIAN .03 LABORER .05 PIPE FITTER .01 SUB SUPERVISOR .01 SUB SAFETY .01 IH TECH .02 SAFETY .01 QA/QC .02 RAD TECH
	Lockout/tagout LPA & B	HD &PJ	.06 ELECTRICIAN .01 SUB SUPERVISOR .01 SUB SAFETY .01 IH TECH .02 SAFETY .01 QA/QC .02 RAD TECH
	Tie in electrical		.06 ELECTRICIAN .01 SUB SUPERVISOR .01 SUB SAFETY .01 IH TECH .02 SAFETY .01 QA/QC .02 RAD TECH
	Remove lockout/tagout	HD &PJ	.06 ELECTRICIAN .01 SUB SUPERVISOR .01 SUB SAFETY .01 IH TECH .02 SAFETY .01 QA/QC .02 RAD TECH
	Install 4'x5'x3/4 plywood floor support for Sheppard Calibrator Replace existing support piers	HD &PJ	.~~04~~25 CARPENTER .01 SUB SUPERVISOR .01 SUB SAFETY .01 IH TECH .02 SAFETY .01 QA/QC .02 RAD TECH
	Install additional support piers for calibrator	HD &PJ	.~~04~~25 CARPENTER .01 SUB SUPERVISOR .01 SUB SAFETY .01 IH TECH .02 SAFETY .01 QA/QC .02 RAD TECH

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Table 1.5.3)2 – Trailer 45 and Trailer 46 Renovation Quantification Table
Health and Safety Building Relocaition
Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity/Material/ODC	Sub-Activity	Calc Type	Calculations
(Continued)	Reinstall trailer skirting	HD &PJ	.~~04~~25 CARPENTER .01 SUB SUPERVISOR .01 SUB SAFETY .01 IH TECH .02 SAFETY .01 QA/QC .02 RAD TECH
	Relocate security fence south of the T-45 west entrance door	HD &PJ	.03 LABORER .01 SUB SUPERVISOR .01 SUB SAFETY .01 IH TECH .02 SAFETY .01 QA/QC .02 RAD TECH

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1.5.4 Building 44A (T-1) Renovation

1.5.4)1 Plan/Scope

- Mobilize job boxes and materials
- Lock and Tag electrical trailer feed at determined location
- Construct new walls to enclose conference room area
- Install accordion style wall for use as a divider for conference room
- Reconfigure lighting to enable lights to be turned on running east to west instead of existing north to south configuration
- Install new lights where needed
- Install electrical outlets in new walls per NEC
- Install all smoke detectors, horns and strobes as required per Honeywell
- Primer and paint all new surfaces
- Fabricate and install 2 new sets of stairs on the north side of trailer

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- Remove carpeting

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- Reinstall sheet vinyl Flooring
- Remove walls obstructing exterior doors on north side of trailer
- Remove lock and tag to restore power to trailer when all penetrations and electrical work is complete
- QA/System test electrical and Honeywell
- Demobilization
- The scope of work for this charge number will require support for planning activities from the following organizations/resources which are budgeted in another cost account:

  - Engineering for Title 1 and II
  - Project Engineer
  - CCM
  - CE
  - Maintenance
  - Safety Engineer
  - Acquisitions
  - IH Engineer
  - RAD Engineer

- The scope of work for this charge number will require support for field and close out activities from the following organizations/resources which are budgeted in another cost account:

  - CCM
  - CE
  - Rad Engineer
  - Maintenance
  - WAO
  - Waste Generator Services

- The scope of work for this charge number will require support for activities from the following organizations/resources which are included in this cost account:

  - Safety Representative
  - Radiological Technicians
  - IH Technicians
  - Quality Assurance/Quality Control Technician

- Materials required for renovation will be estimated per the scope of work. Any tools and equipment required should be on hand and readily available:

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- Metal Studs
- Metal tracking – base and header
- 4x8 Sheets of ½" Dry Wall (screws, tape, mud)
- Primer & Paint
- Baseboard
- Sheet Vinyl Flooring
- Doors with frames
- Hardware for Doors
- Accordion Style Wall
- Lights
- Conduit
- Wire
- Outlets and covers
- Junction Boxes
- Emergency Lighting
- Phone Jacks

Table 1.5.4)2 – Building 44A (Trailer 1) Renovation Quantification Table
Health and Safety Building Relocation
Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity/Material/ODC	Sub-Activity	Calc Type	Calculations
Activity: This scope of work is to renovate Trailer T-1. **General Materials:** $ 594/FTE **Additional Materials:** 1) Metal studs 2) Metal tracking –base and header 3) 4x8 sheets of ½" drywall (screws, tape, mud) 4) Primer and Paint 5) Baseboard 6) Doors with Frames 7) Accordion style wall 8) Lights 9) Conduit 10) Wire 11) Outlets and covers 12) Junction Boxes 13) Emergency Lighting 14) Phone Jacks 15) Sheet Vinyl Flooring Additional Materials Cost - ~~$20,000~~ 26,580 **Subcontractor** *** Same as 1.5.2**	Mobilize job boxes and materials	HD &PJ	.17 ELECTRICIAN .13 CARPENTER .15 LABORER .04 SUB SUPERVISOR .03 SUB SAFETY .01 IH TECH .02 SAFETY .01 QA/QC
ODC's *ODC 600* -- None *ODC 700* -- None *ODC Travel* -- None ~~*Premium Overtime* -- None~~ Overtime at 1.5x Rad Tech 5.99% and Safety Engineer 5.93% for Fluor Fernald Support only	Lock and tag electrical trailer feed at determined location	HD &PJ	.17 ELECTRICIAN .04 SUB SUPERVISOR .03 SUB SAFETY .01 IH TECH .02 SAFETY .01 QA/QC
(Continued)	Construct new walls to enclose conference room area Install Sheet Vinyl Flooring	HD &PJ	~~.13~~ 2CARPENTER .04 SUB SUPERVISOR .03 SUB SAFETY .01 IH TECH .02 SAFETY .01 QA/QC

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Table 1.5.4)2 – Building 44A (Trailer 1) Renovation Quantification Table
Health and Safety Building Relocation
Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity/Material/ODC	Sub-Activity	Calc Type	Calculations
	Install accordion style wall for use as a divider for conference room	HD &PJ	.13 CARPENTER .04 SUB SUPERVISOR .03 SUB SAFETY .01 IH TECH .02 SAFETY .01 QA/QC
	Reconfigure lighting to enable lights to be turned on running east to west instead of north to south	HD &PJ	.~~17~~ 33ELECTRICIAN .04 SUB SUPERVISOR .03 SUB SAFETY .01 IH TECH .02 SAFETY .01 QA/QC
	Install new lights where needed	HD &PJ	.17 ELECTRICIAN .04 SUB SUPERVISOR .03 SUB SAFETY .01 IH TECH .02 SAFETY .01 QA/QC
	Install electrical outlets in new walls per NEC	HD &PJ	.17 ELECTRICIAN .04 SUB SUPERVISOR .03 SUB SAFETY .01 IH TECH .02 SAFETY .01 QA/QC
	Install smoke detectors, horns and strobes as required per Honeywell	HD & PJ	.17 ELECTRICIAN .04 SUB SUPERVISOR .03 SUB SAFETY .01 IH TECH .02 SAFETY .01 QA/QC
	Primer and paint all new surfaces	HD &PJ	.13 CARPENTER .04 SUB SUPERVISOR .03 SUB SAFETY .01 IH TECH .02 SAFETY .01 QA/QC
	Fabricate and install 2 new sets of stairs on the north of trailer	HD &PJ	.13 CARPENTER .04 SUB SUPERVISOR .03 SUB SAFETY .01 IH TECH .02 SAFETY .01 QA/QC
(Continued)	Remove wall obstructing exterior doors on the north side of trailer Reinforce floor structure with piers	HD &PJ	.~~15~~45 LABORER .04 SUB SUPERVISOR .03 SUB SAFETY .01 IH TECH .02 SAFETY .01 QA/QC

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Table 1.5.4)2 – Building 44A (Trailer 1) Renovation Quantification Table
Health and Safety Building Relocation
Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity/Material/ODC	Sub-Activity	Calc Type	Calculations
	Remove lock and tag to restore power to trailer when all penetrations and electrical work is complete.	HD &PJ	.17 ELECTRICIAN .04 SUB SUPERVISOR .03 SUB SAFETY .01 IH TECH .02 SAFETY .01 QA/QC

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1.5.5 Services Building Renovation

1.5.5)1 Plan/Scope

- Mobilize job boxes, tools, materials and equipment
- Frame and close (plywood both side) Building 11 @ 2nd east door
- Lockout/tag out
- Install exterior light above Building 11 first floor east door
- Install conduit and wire to light
- Tie-in light and test
- Remove existing first floor wooden double door
- Install new metal double door. Install panic door hardware
- Paint door
- Demobilize

- The scope of work for this charge number will require support for planning activities from the following organizations/resources which are budgeted in another cost account:

  - Engineering for Title 1 and II
  - Project Engineer
  - CCM
  - CE
  - Maintenance
  - Safety Engineer
  - Acquisitions
  - IH Engineer
  - RAD Engineer

- The scope of work for this charge number will require support for field and close out activities from the following organizations/resources which are budgeted in another cost account:

  - CCM
  - CE

- Rad Engineer
- Maintenance
- WAO
- Waste Generator Services

- The scope of work for this charge number will require support for activities from the following organizations/resources which are included in this cost account:

  - Safety Representative
  - Radiological Technicians
  - IH Technicians
  - Quality Assurance/Quality Control Technician

- Materials required for renovation will be estimated per the scope of work. Any tools and equipment required should be on hand and readily available:

  - 3070 double metal doors, fire rated
  - Panic door hardware
  - Exterior light
  - Miscellaneous electric items
  - Plywood and framing
  - Paint and supplies

Table 1.5.5)2 – Services Building Renovation Quantification Table
Health and Safety Building Relocation
Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity/Material/ODC	Sub-Activity	Calc Type	Calculations
Activity: This scope of work is to renovate the service building. **General Materials:** $ 594/FTE **Additional Materials:** 1) 3070 double metal doors, fire rated 2) Panic door hardware 3) Exterior light 4) Miscellaneous electric items 5) Plywood and framing 6) Paint and supplies Additional Material Cost - ~~$5,000~~ 2,900 Subcontractor *Same as 1.5.2	Mobilize job boxes, tools, materials and equipment	HD &PJ	.~~13~~ 01 ELECTRICIAN .~~08~~ 01 CARPENTER .~~07~~ 01 LABORER .~~02~~ 01 SUB SUPERVISOR .~~02~~ 01 SUB SAFETY .01 IH TECH .02 SAFETY .01 QA/QC .01 RAD TECH
ODC's *ODC 600* -- None *ODC 700* -- None *ODC Travel* -- None ~~Premium Overtime -- None~~ Overtime at 1.5x Rad Tech 5.99% and Safety Engineer 5.93% for Fluor Fernald Support only	Frame and close (plywood both side) Building 11 @ 2nd east door	HD &PJ	.08 CARPENTER .~~02~~ 01 SUB SUPERVISOR .~~02~~ 01 SUB SAFETY .01 IH TECH .02 SAFETY .01 QA/QC .01 RAD TECH
	Lockout/tag out	HD &PJ	.~~13~~ ELECTRICIAN .~~02~~ 01 SUB SUPERVISOR .~~02~~ 01 SUB SAFETY .01 IH TECH .02 SAFETY .01 QA/QC .01 RAD TECH
	Install exterior light above Building 11 first floor east door	HD &PJ	.~~13~~ ELECTRICIAN .~~02~~ 01 SUB SUPERVISOR .~~02~~ 01 SUB SAFETY .01 IH TECH .02 SAFETY .01 QA/QC .01 RAD TECH
	Install conduit and wire to light	HD &PJ	.~~13~~ ELECTRICIAN .~~02~~ 01 SUB SUPERVISOR .~~02~~ 01SUB SAFETY .01 IH TECH .02 SAFETY .01 QA/QC .01 RAD TECH

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Table 1.5.5)2 – Services Building Renovation Quantification Table
Health and Safety Building Relocation
Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity/Material/ODC	Sub-Activity	Calc Type	Calculations
(Continued)	Tie-in light and test	HD &PJ	.~~13~~01 ELECTRICIAN .~~02~~01 SUB SUPERVISOR .~~02~~01 SUB SAFETY .01 IH TECH .02 SAFETY .01 QA/QC .01 RAD TECH
	Remove existing first floor wooden double door	HD &PJ	.~~07~~02 LABORER .~~02~~01 SUB SUPERVISOR .~~02~~01 SUB SAFETY .01 IH TECH .02 SAFETY .01 QA/QC .01 RAD TECH
	Install new metal double door. Install panic door hardware	HD &PJ	.08 CARPENTER .~~02~~01 SUB SUPERVISOR .~~02~~01 SUB SAFETY .01 IH TECH .02 SAFETY .01 QA/QC .01 RAD TECH
	Paint door	HD &PJ	.~~08~~02 CARPENTER .~~02~~01 SUB SUPERVISOR .~~02~~01 SUB SAFETY .01 IH TECH .02 SAFETY .01 QA/QC .01 RAD TECH
	Demobilize	HD &PJ	.~~13~~01 ELECTRICIAN .~~08~~01 CARPENTER .~~07~~01 LABORER .~~02~~01 SUB SUPERVISOR .~~02~~01 SUB SAFETY .01 IH TECH .02 SAFETY .01 QA/QC .01 RAD TECH

R1-F01-003

SECTION 3

2.0 MANPOWER PLANS

Manpower Planning Sheet (CR2)

MPS # 1AD02 MEDICAL 6-PLEX

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
206 ADMIN COMPLEX D&D	10/01/2004	07/03/2006						xxx xxx xxx xxx	xxx xxx xxx x
212 OFFICE TRAILER D&D	10/03/2005	04/03/2007							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
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	

Medical Complex	Environmental Safety & H	Industrial Hygienist Tech.	0.10	0	0	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	0.10	0	0	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	Safety Engineer	0.30	0	0	0	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Subcontract	Subcontract Craft	14.60	0	0	0	14.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
206-B44A	Environmental Safety & H	Industrial Hygienist 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
	Environmental Safety & H	Safety Engineer	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
	QA/QC	QA/QC 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
	Subcontract	Subcontract Craft	5.50	0	0	5.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Comm Center	Environmental Safety & H	Industrial Hygienist Tech.	0.40	0	0	0	0.2	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Environmental Safety & H	Safety Engineer	1.00	0	0	0	0.5	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	QA/QC	QA/QC Tech.	0.40	0	0	0	0.2	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Environmental Safety & H	Rad Tech	0.80	0	0	0	0.4	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Subcontract	Subcontract Craft	26.50	0	0	0	9.5	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
T-45/46	Environmental Safety & H	Industrial Hygienist Tech.	0.10	0	0	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	Safety Engineer	0.30	0	0	0	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	QA/QC	QA/QC Tech.	0.10	0	0	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	0.30	0	0	0	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Subcontract	Subcontract Craft	4.00	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Svcs Bldg/InVivo	Environmental Safety & H	Industrial Hygienist Tech.	0.10	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	QA/QC	QA/QC Tech.	0.10	0	0	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	0.10	0	0	0	0.1	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 # 1AD02 MEDICAL 6-PLEX

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																		
206 ADMIN COMPLEX D&D	10/01/2004	07/03/2006																				
212 OFFICE TRAILER D&D	10/03/2005	04/03/2007	xxx	xxx	x																	
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							
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	Industrial Hygienist 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 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
Subcontract	Subcontract Craft		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Industrial Hygienist 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
QA/QC	QA/QC Tech.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subcontract	Subcontract Craft		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Industrial Hygienist 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
QA/QC	QA/QC 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 Tech		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subcontract	Subcontract Craft		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Industrial Hygienist 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
QA/QC	QA/QC 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 Tech		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subcontract	Subcontract Craft		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Industrial Hygienist Tech.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QA/QC	QA/QC 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 Tech		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 # 1AD02 MEDICAL 6-PLEX

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
Environmental Safety & H	Safety Engineer		0.20	0	0	0	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subcontract	Subcontract Craft		0.50	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sheet Totals:		55.90	0.00	0.00	5.90	31.70	18.30	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

Manpower Planning Sheet (CR2)

MPS # 1AD02 MEDICAL 6-PLEX

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
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
Subcontract	Subcontract Craft		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

3.0 ESTIMATE

APRJ3

HEALTH & SAFETY BUILDING RELOCATION

09/07/2001
12:23 PM

PBS: 01
WBS: 1.1.A.D
CTRL ACCT: APRJ
CHARGE NO: APRJ3
COMMENT NO: F01-037

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
**** STATED IN FY01 DOLLARS ****
(1 FTE EQUALS 1747 HOURS)

DATE: 13 MAY 2001
PROJECT MGR: R. NICHOLS
CAM: R. NICHOLS
PREPARED BY: L. HAMPSHIRE
ALL FISCAL YEARS

Resource: INHTEC **INDUST HYGIENIST TEC** **EOC:** LABOR
Res Dept: **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:	91.1	21.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	91.1	112.9	112.9	112.9	112.9	112.9	112.9	112.9	112.9	112.9
Yr Total Cost:	3,733	889	0	0	0	0	0	0	0	0
Cum Total Cost:	3,733	4,622	4,622	4,622	4,622	4,622	4,622	4,622	4,622	4,622

Resource: MAT300 **MATERIAL OBJCLASS300** **EOC:** MATERIAL
Res Dept: **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:	214,777.1	85,619.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Units:	214,777.1	300,397.0	300,397.0	300,397.0	300,397.0	300,397.0	300,397.0	300,397.0	300,397.0	300,397.0
Yr Total Cost:	214,777	87,932	0	0	0	0	0	0	0	0
Cum Total Cost:	214,777	302,709	302,709	302,709	302,709	302,709	302,709	302,709	302,709	302,709

Resource: QACTEC **QA/QC TECH** **EOC:** LABOR
Res Dept: **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:	136.2	62.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	136.2	199.1	199.1	199.1	199.1	199.1	199.1	199.1	199.1	199.1
Yr Total Cost:	4,207	2,044	0	0	0	0	0	0	0	0
Cum Total Cost:	4,207	6,251	6,251	6,251	6,251	6,251	6,251	6,251	6,251	6,251

Resource: RADTEC **RAD TECH** **EOC:** LABOR
Res Dept: **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:	489.5	229.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	489.5	719.0	719.0	719.0	719.0	719.0	719.0	719.0	719.0	719.0
Yr Total Cost:	17,169	8,367	0	0	0	0	0	0	0	0
Cum Total Cost:	17,169	25,536	25,536	25,536	25,536	25,536	25,536	25,536	25,536	25,536

INCLUDES ESCALATION COSTS

09/07/2001
12:23 PM

Resource: S&HENG **SAFETY ENGINEER** **EOC:** LABOR
Res Dept: **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:	403.6	132.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	403.6	536.1	536.1	536.1	536.1	536.1	536.1	536.1	536.1	536.1
Yr Total Cost:	21,032	7,091	0	0	0	0	0	0	0	0
Cum Total Cost:	21,032	28,123	28,123	28,123	28,123	28,123	28,123	28,123	28,123	28,123

Resource: SERVSUB **SUBS** **EOC:** SUBCONTRACTORS
Res Dept: 950 **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:	136,862.1	49,137.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Units:	136,862.1	186,000.0	186,000.0	186,000.0	186,000.0	186,000.0	186,000.0	186,000.0	186,000.0	186,000.0
Yr Total Cost:	136,862	50,465	0	0	0	0	0	0	0	0
Cum Total Cost:	136,862	187,327	187,327	187,327	187,327	187,327	187,327	187,327	187,327	187,327

Resource: WISE **WISE CONSTRUCTION** **EOC:** SUBCONTRACTORS
Res Dept: 950 **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:	522,288.8	192,841.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Units:	522,288.8	715,130.0	715,130.0	715,130.0	715,130.0	715,130.0	715,130.0	715,130.0	715,130.0	715,130.0
Yr Total Cost:	522,289	198,048	0	0	0	0	0	0	0	0
Cum Total Cost:	522,289	720,337	720,337	720,337	720,337	720,337	720,337	720,337	720,337	720,337

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:	1,120.4	446.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,120.4	1,567.2	1,567.2	1,567.2	1,567.2	1,567.2	1,567.2	1,567.2	1,567.2	1,567.2
Yr Total Cost:	920,069	354,835	0	0	0	0	0	0	0	0
Cum Total Cost:	920,069	1,274,905	1,274,905	1,274,905	1,274,905	1,274,905	1,274,905	1,274,905	1,274,905	1,274,905

CAM _____ CONTROL TEAM _____

INCLUDES ESCALATION COSTS

Fluor Fernald, Inc.

PROJECTS CONTROLS
ESTIMATING SERVICES

July 30, 2001

PROJECT DESCRIPTION: Health & Safety Building Relocation
WBS NUMBER: 1.1.A.D
PROJECT ENGINEER: Tom Jesse
ESTIMATOR: Ed Lumbert
ESTIMATE NUMBER: IH-2001-05-002 R1

BASIS OF ESTIMATE

SUPPORTING DOCUMENTATION:

Verbal Scope	☐	P & ID's	☐	Work Plan	☐
Drawings	☐	Equipment List	☐	Site Walk	☐
Sketches	☐	Specifications	☐	Eng. Mtg.	☐
Flow Diagrams	☐	Written Scope	☒	Estimate	☐

TYPE OF ESTIMATE:

Change Proposal	☐	Government	☐
Plan/Feasibility	☐	Conceptual	☐
Construction	☐	Title I Design	☐
Budget	☒	Independent	☐

BASIS OF ESTIMATE:

Prepare a control estimate to determine the cost of Health & Safety Building Relocation. Estimate to include manhours, labor, material, equipment, and subcontract costs for the following structures:

Medical Complex
Communications Center
T-45/T-46 Renovation
Building 44A (T-1) Renovation
Services Building Renovation

Revision 1 accounts for change of Medical trailer from seven to six-plex unit, revised cost of six-plex trailer, addition of fire protection in six-plex, electrical renovation to T-45/T-46 trailers, shoring scope of work added to T-45/T-46 trailer, and flooring replacement scope added to T-1 trailer.

Fluor Fernald, Inc.

PROJECTS CONTROLS
ESTIMATING SERVICES

July 30, 2001

PROJECT DESCRIPTION: Health & Safety Building Relocation
WBS NUMBER: 1.1.A.D
PROJECT ENGINEER: Tom Jesse
ESTIMATOR: Ed Lumbert
ESTIMATE NUMBER: IH-2001-05-002 R1

ESTIMATE ASSUMPTIONS

EXECUTION:

- ☒ This project is to be performed on a 40-hour week, 10 hours a day.
- ☐ This project is to be performed on a 40-hour week, 8 hours a day.
- ☐ Premium time allowed.

WAGE RATES:

- ☐ Wage rates within this estimate are based on Project Labor Agreement rates, effective October 2000 and are considered FY01 dollars for estimating.
- ☒ Wage rates within this estimate are based on FF Support Contractor FSC 645 wage rates, effective January 2001 and are considered FY01 dollars for estimating.
- ☐ Wage rates within this estimate are based on FF FTE Planning Labor Rates FY01.

ENGINEERING:

- ☒ N/A
- ☐ Engineering dollars provided by the Project Engineer.
- ☐ Engineering dollars have been factored in at the standard 12% of the total direct and indirect field costs as per request of Project Engineer.

CONSTRUCTION MANAGEMENT:

- ☒ N/A
- ☐ Construction Management dollars provided by the Project Engineer.
- ☐ Construction Management dollars have been factored in at the standard 30% of the total direct and indirect field costs as per request of Project Engineer.

PROJECT MANAGEMENT:

- ☒ N/A
- ☐ Project Management dollars provided by the Project Engineer.
- ☐ Project Management dollars have been factored in at the standard 30% of the total direct and indirect field costs as per request of Project Engineer.

WASTE PROGRAM MANAGEMENT:

- ☒ N/A
- ☐ Waste Program Management dollars provided by the Project Engineer.

Fluor Fernald, Inc.

PROJECTS CONTROLS
ESTIMATING SERVICES

July 30, 2001

PROJECT DESCRIPTION: Health & Safety Building Relocation
WBS NUMBER: 1.1.A.D
PROJECT ENGINEER: Tom Jesse
ESTIMATOR: Ed Lumbert
ESTIMATE NUMBER: IH-2001-05-002 R1

PRODUCTIVITY:

A productivity factor has been developed and applied to the unit man-hours derived from MEANS, Richardson, NECA, and or any other published estimating source. See attachment APPENDIX AA@ and APPENDIX AB@.

ESCALATION:

Escalation costs are excluded from the target estimate. The escalation costs are calculated within the Micro-Frame computer system according to the plan for rebaselining.

UNIT RATES:

Unit man-hours, equipment and material dollars are based on Richardson, MEANS, NECA, and or other published rates.

G & A (HO EXPENSE):

G & A are excluded from the target estimate. The G & A cost are calculated within the Micro-Frame computer system according to the plan for rebaselining.

HEALTH PHYSICS:

See attached APPENDIX AC@.

RISK BUDGET:

N/A.

CONTINGENCY:

N/A.

Fluor Fernald, Inc.

PROJECTS CONTROLS
ESTIMATING SERVICES

July 30, 2001

PROJECT DESCRIPTION: Health & Safety Building Relocation
WBS NUMBER: 1.1.A.D
PROJECT ENGINEER: Tom Jesse
ESTIMATOR: Ed Lumbert
ESTIMATE NUMBER: IH-2001-05-002 R1

ESTIMATE INCLUSIONS & EXCLUSIONS

INCLUSIONS:

- X Premobilization & Mobilization.
- X Demobilization.
- X Labor hours.
- X Material dollars.
- X Equipment dollars.

EXCLUSIONS:

- X Premium time.
- X Permits and fees.
- X FF G & A (Home Office Expense).
- X Construction Management.
- X Any second tier subcontract costs.
- X Project Management dollars.
- X Waste Management dollars.

SUPPORT CONTRACTOR ESTIMATE SUMMARY SHEET

PROJECT: Health & Safety Building Relocati — DATE: 30-Jul-01

ESTIMATE NO: IH-2001-05-002 R1 — ESTIMATOR: Ed Lumbert

CLIENT: DOE — **Fluor Fernald, Inc.** — LOCATION: FERNALD

WBS NO.: 1.1.A.D — TASK NO: APRJ3

	DESCRIPTION	M/H	AVG. RATE	SPT.CONT. LABOR $	FERNALD S/C / OTHER	MAT'L $	EQUIP $	TOTAL $
	Medical 6 Plex	4,475		$162,200	$36,000	$36,840	$800	$73,640
	Communications Center	6,292		$231,500	$150,000	$146,530	$36,000	$332,530
	T-45/T-46 Renovation	1,432		$51,140		$16,540		$16,540
	44A (T-1) Renovation	2,002		$71,020		$22,920		$22,920
	Services Building Renovation	167		$5,970		$2,500		$2,500
	Pre-Eng Building Purchase (APR					$525,000		$525,000
	SUPPORT CONT. / FF D. F. COST	**14,367**	**$36.32**	**$521,830**	**$186,000**	**$750,330**	**$36,800**	**$973,130**
	SUPERVISION	2,730		$140,100				
	SMALL TOOLS & CONSUMABLES					$57,400		$57,400
	MISC. EQUIP.RENTAL							
	JOB CLEAN-UP	647		$23,500		$7,800		$7,800
	SAFETY	281		$10,200		$5,500		$5,500
	HEALTH PHYSICS S/C	537		$19,500				
	JOB SPECIFIC TRAINING							
	SUPPORT CONT. INDIRECT FIELD COST TO	**4,195**		**$193,300**				
	SUPPORT CONT. TOTAL BILLABLE COSTS	**18,562**	**$38.53**	**$715,130**				
	TEMPORARY FACILITIES							
	TEMPORARY UTILITY HOOK-UP							
	FD FERNALD SALES TAX					$49,300	$2,200	$51,500
	FF INDIRECT FIELD COSTS TOTAL					**$120,000**	**$2,200**	**$122,200**
	FF DIRECT & INDIRECT FIELD COSTS TOTA				**$186,000**	**$870,330**	**$39,000**	**$1,095,330**
	FF and SUPT.CONT. DIRECT & INDIRECT FIELD COST TO			**$715,130**	**$186,000**	**$870,330**	**$39,000**	**$1,810,460**
	SUB-TOTAL (BASE ESTIMATE)							**$1,810,460**
	TARGET ESTIMATE			**(FY 01 DOLLARS)**				**$1,810,460**

ESTIMATE PERFORME

SUPPORT CONTRACTOR ESTIMATE SUMMARY SHEET

PROJECT: Health & Safety Building Reli — DATE: 30-Jul-01

ESTIMATE NC IH-2001-05-002 R1 — **FACTORS** — ESTIMATOI Ed Lumbert

CLIENT: DOE — LOCATION: FERNALD

WBS NO.: 1.1.A.D — TASK NO.: APRJ3

	SUPT.CONT.	FLUOR FERNALD					PROJECT
	LABOR $	LABOR $	S/C $	MAT'L. $	EQUIP. $	PPE $	TOTAL $
OFC DOLLARS	$521,830		$186,000	$750,330	$36,800		$1,494,960
IFC COST FACTOR	1.3704	1.0000	1	1.0942	1.0000	--	
SALES TAX COST FACTOR	--	--	--	1.0600	1.0600	1.0600	
BOND + OVERHEAD & PROFIT COST FACTOI	N/A	N/A	N/A	N/A	N/A	N/A	
DIRECT FIELD COST FACTOR =	1.3704	1.0000	1.0000	1.1599	1.0600	1.0600	
DIRECT BASE ESTIMATE $'s	$715,130		186000	$870,292	$39,008		$1,810,430
RISK BUDGET FACTOR	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
DIRECT TARGET ESTIMATE FACTOR	1.3704	1.0000	1	1.1599	1.0600	1.0600	
DIRECT TARGET ESTIMATE (FY00 DOLLAI	$715,130		186000	$870,292	$39,008		$1,810,430

NOTE:

1.) If there are no equipment rental costs in the "Directs" (0 $'s in I 20) and the default allowance of $3.50 per MH has been used in the "indirects", input the indirect equip. $'s in H52 and put a dash in H53.
This will treat the Equip. $'s as direct cost and apply the sales tax factor.
On page 3 below, insert the equipment $'s in any pay items that apply.

SUPPORT CONTRACTOR ESTIMATE SUMMARY SHEET

PROJECT: Health & Safety Building Reli — DATE: 30-Jul-01

ESTIMATE NC IH-2001-05-002 R1 — Direct Field Cost — ESTIMATO Ed Lumbert

CLIENT: DOE — w/FACTORS — LOCATION: FERNALD

WBS NO.: 1.1.A.D — SUPPORT — TASK NO.: APRJ3

		SUPPORT CONT.	FLUOR FERNALD					PROJECT
PAY ITEM NO.	DESCRIPTION	LABOR $	LABOR $	S/C $	MAT'L. $	EQUIP. $	PPE $	TOTAL $
	PPE							
	Medical 6 Plex	162,200		36,000	36,840	800		235,840
		$222,280		$36,000	$42,730	$850		$301,860
	Communications Center	231,500		150,000	146,530	36,000		564,030
		$317,250		$150,000	$169,960	$38,160		$675,370
	T-45/T-46 Renovation	51,140			16,540			67,680
		$70,080			$19,180			$89,260
	44A (T-1) Renovation	71,020			22,920			93,940
		$97,330			$26,580			$123,910
	Services Building Renovation	5,970			2,500			8,470
		$8,180			$2,900			$11,080
	Pre-Eng Building Purchase (APR				525,000			525,000
					$608,940			$608,940
SUB-TOTAL - SUPPORT CONTRACTOR		$715,120						$715,120
SUB-TOTAL - FF				$186,000	$870,290	$39,010		$1,095,300
TOTAL DIRECT FIELD COSTS w/FACTORS				(FY01 DOLLARS)				$1,810,420

NOTE: The above costs exclude any Fluor Fernald support costs that may appear on page 1 & 2, such as Waste Disposition, Engineering, Project Management, or Construction Management.

PROJECT: Health & Safety Building Relocation
ESTIMATE NO.: III-2001-05-002 R1
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 30-Jul-01
ESTIMATO Ed Lumbert
LOCATION: FERNALD
TASK NO.: APRJ3

	DIRECT COST SUMMARY	QTY	UNIT	MAN-HOURS			COST / UNIT				LABOR	S/C	MAT'L	EQUIP	TOTAL
				Unit	Total	Rate	Labor	S/C	Mat'l	Equip					
	Medical 6 Plex				4,475						$162,240	$36,000	$36,840	$800	$235,880
	Communications Center				6,292						$231,540	$150,000	$146,530	$36,000	$564,070
	T-45/T-46 Renovation				1,432						$51,140		$16,540		$67,680
	44A (T-1) Renovation				2,002						$71,020		$22,920		$93,940
	Services Building Renovation				167						$5,970		$2,500		$8,470
	Pre-Eng Building Purchase (APRJ)												$525,000		$525,000
	DIRECT COST SUMMARY	1	LOT		14,367	$36.33					$521,910	$186,000	$750,330	$36,800	$1,495,040

PROJECT: Health & Safety Building Relocation
ESTIMATE NO.: III-2001-05-002 R1
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 30-Jul-01
ESTIMATO Ed Lumbert
LOCATION FERNALD
TASK NO.: APRJ3

PPE LEVEL	Medical 6 Plex	QTY	UNIT	MAN-HOURS Unit	MAN-HOURS Total	MAN-HOURS Rate	COST / UNIT Labor	COST / UNIT S/C	COST / UNIT Mat'l	COST / UNIT Equip	LABOR	S/C	MAT'L	EQUIP	TOTAL
	Purchase one (1) six-plex trailer and install six-plex in existing parking lot south of T-80.														
mD	Purchase six-plex trailer	1	ea	80.0	113	$36.72					$4,136				$4,136
mD	Block,Level, Join and Anchor	320	hr	1.000	451	$36.72			2.00		$16,544		$640		$17,184
mD	Skirting, Flashing & Sealing	158	hr	1.000	222	$36.72			5.00		$8,143		$788		$8,931
mD	Stairs, Handicap Access Ramp	158	hr	1.000	222	$36.72			3.00		$8,143		$473		$8,616
mD	Exterior Lighting and Emergenc	228	hr	1.000	320	$38.12			1.25		$12,209		$284		$12,493
mD	Power, Comm, & Honeywell for	1	ls					36,000				$36,000			$36,000
mD	Clean Area	65	mh	1.000	92	$33.93					$3,105				$3,105
mD	Survey, Horizontal & Vertical Co	60	mh	1.000	84	$33.93			0.50		$2,866		$30		$2,896
mD	Excavation	117	cy	0.107	18	$33.93					$598				$598
mD	Bedding Material	21	cy	0.249	7	$33.93			17.00		$247		$353		$600
mD	Install 2" Domestic Water	350	lf	0.035	17	$33.93			0.35		$585		$123		$708
mD	Install 6" Sanitary	230	lf	0.076	25	$33.93			6.65		$835		$1,530		$2,365
mD	Install 6" Fire Protection	230	lf	0.076	25	$33.93			6.65		$835		$1,530		$2,365
mD	Backfill	96	cy	0.895	121	$33.93					$4,117				$4,117
mD	Heat trace & Insulate	160	hr	1.000	225	$38.12			3.50		$8,587		$560		$9,147
mD	Plumbing Tie in	80	hr	1.000	113	$41.55			5.00		$4,680		$400		$5,080
mD	Install Power Poles	1	ea	11.765	17	$36.72			525.00		$608		$525		$1,133
mD	Guy Wire, Anchor, Hardware fo	1	ea	4.000	6	$36.72			375.00		$207		$375		$582
mD	Transformer, 13.2 kv	1	ea	29.000	41	$38.12			7,100.00		$1,556		$7,100		$8,656
mD	480v Overhead Cable	100	lf	0.080	11	$38.12			20.75		$429		$2,075		$2,504
mD	Disconnect Switch 480v 3ph	1	ea	8.000	11	$38.12			250.00		$429		$250		$679
mD	Service Entrance Cap, 1 1/2" di	1	ea	1.200	2	$38.12			11.25		$64		$11		$75
mD	Conduit, 1 1/2" dia, RGS	50	lf	0.100	7	$38.12			1.70		$268		$85		$353
mD	Conduit fittings, 1 1/2" dia	1	ls	8.000	11	$38.12			100.00		$429		$100		$529
mD	#1/0 AL Power cable	1	clf	2.000	3	$38.12			42.62		$107		$43		$150
mD	Ground Wire, Copper	100	lf	0.050	7	$38.12			0.44		$268		$44		$312
mD	Allowance for Hardware	80	hr	1.000	113	$38.12			20.00		$4,293		$1,600		$5,893
mD	Electrical Tie-In	120	hr	1.000	169	$38.12					$6,440				$6,440
mD	Lock and Tag	80	hr	1.000	113	$38.12					$4,293				$4,293
mD	Allowance for Hardware	80	hr	1.000	113	$38.12			20.00		$4,293		$1,600		$5,893
mD	Auger/Bucket Truck Rental w/C	10	hr							80.00				$800	$800
mD	O.H. Comm/Phone Lines	100	lf	0.023	3	$38.12			3.65		$123		$365		$488
mD	Telephone Tie-in	120	hr	1.000	169	$38.12			2.50		$6,440		$300		$6,740
mD	Allowance for Hardware	80	hr	1.000	113	$38.12			20.00		$4,293		$1,600		$5,893
mD	Overhead Honeywell Cable	100	lf	0.016	2	$38.12			2.81		$86		$281		$367
mD	Honeywell Tie-in	120	hr	1.000	169	$38.12			2.50		$6,440		$300		$6,740
mD	Allowance for Hardware	80	hr	1.000	113	$38.12			20.00		$4,293		$1,600		$5,893
mD	Elect Portable Water Coolers	7	ea	0.500	5	$38.12			125.00		$188		$875		$1,063
mD	Pavement Repair	1	ls	160.0	225	$33.93			10,000		$7,644		$10,000		$17,644
mD	Premobilization	1	ls	120.0	120	$30.18					$3,622				$3,622
mD	Traffic Control	1	ls	160.0	160	$33.93			500.00		$5,400		$500		$5,900
mD	Other misc. requirements as re	1	ls	160.0	160	$33.93			500.00		$5,400		$500		$5,900
mD	Complete Punch List items.	1	ls	320.0	320	$33.93					$10,900				$10,900
mD	Other area requirements.	1	ls	160.0	160	$33.93					$5,400				$5,400
mD	Decontaminate	1	ls	80.0	80	$33.93					$2,700				$2,700
	Medical 6 Plex				**4,475**	$36.26					**$162,240**	**$36,000**	**$36,840**	**$800**	**$235,880**

PROJECT: Health & Safety Building Relocation
ESTIMATE NO.: IH-2001-05-002 R1
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 30-Jul-01
ESTIMATO Ed Lumbert
LOCATION FERNALD
TASK NO.: APRJ3

PPE LEVEL	Communications Center	QTY	UNIT	MAN HOURS Unit	MAN HOURS Total	MAN HOURS Rate	COST / UNIT Labor	COST / UNIT S/C	COST / UNIT Mat'l	COST / UNIT Equip	LABOR	S/C	MAT'L	EQUIP	TOTAL
	Purchase & install new Communications Center.														
mD	Clean Area	65	mh	1.000	92	$33.93					$3,105				$3,105
mD	Survey, Horizontal & Vertical Cc	60	mh	1.000	84	$33.93			0.50		$2,866		$30		$2,896
mD	Purchase Comm Center	1	ea	80.0	113	$36.72					$4,136				$4,136
mD	Relocate Radio Base Stations &	1	ea	320.0	451	$36.72		######			$16,544	$150,000			$166,544
mD	Excavation	45	cy	0.107	7	$33.93					$227				$227
mD	Concrete for Ftgs, Wall, Slab	21	cy	2.942	86	$33.93			75.00		$2,909		$1,553		$4,462
mD	Backfill	13	cy	0.895	17	$33.93					$569				$569
mD	Electrical Tie-In	160	hr	1.000	225	$38.12			30.00		$8,587		$4,800		$13,387
mD	Install Power Poles	1	ea	11.765	17	$36.72			525.00		$608		$525		$1,133
mD	Guy Wire, Anchor, Hardware fo	1	ea	4.000	6	$36.72			375.00		$207		$375		$582
mD	Transformer, 13.2 kv	1	ea	29.0	41	$38.12			7,100.00		$1,556		$7,100		$8,656
mD	480v Overhead Cable	1,500	lf	0.080	169	$38.12			20.75		$6,440		$31,125		$37,565
mD	Disconnect Switch 480v 3ph	1	ea	8.000	11	$38.12			250.00		$429		$250		$679
mD	Service Entrance Cap, 1 1/2" di	1	ea	1.200	2	$38.12			11.25		$64		$11		$75
mD	Conduit, 1 1/2" dia, RGS	500	lf	0.100	70	$38.12			1.70		$2,683		$850		$3,533
mD	Conduit fittings, 1 1/2" dia	5	ls	8.000	56	$38.12			100.00		$2,147		$500		$2,647
mD	#1/0 AL Power cable	5	clf	2.000	14	$38.12			42.62		$537		$213		$750
mD	Ground Wire, Copper	200	lf	0.050	14	$38.12			0.44		$537		$88		$625
mD	Allowance for Hardware	160	hr	1.000	225	$38.12			30.00		$8,587		$4,800		$13,387
mD	Electrical Tie-In	160	hr	1.000	225	$38.12			30.00		$8,587		$4,800		$13,387
mD	Lock and Tag	80	hr	1.000	113	$38.12					$4,293				$4,293
mD	Allowance for Hardware	160	hr	1.000	225	$38.12			30.00		$8,587		$4,800		$13,387
mD	Auger/Bucket Truck Rental w/C	450	hr							80.00				$36,000	$36,000
mD	Install 2" Domestic Water	300	lf	0.035	15	$33.93			0.35		$502		$105		$607
mD	Heat trace & Insulate	30	hr	1.000	42	$38.12			3.50		$1,610		$105		$1,715
mD	Plumbing Tie in	80	hr	1.000	113	$41.55			30.00		$4,680		$2,400		$7,080
mD	Exterior Lighting	4	ea	2.000	11	$38.12			150.00		$429		$600		$1,029
mD	Emergency Lighting Pack	3	ea	2.000	8	$38.12			450.00		$322		$1,350		$1,672
mD	Allowance for Hardware	160	hr	1.000	225	$38.12			30.00		$8,587		$4,800		$13,387
mD	Electrical Tie-In	160	hr	1.000	225	$38.12			30.00		$8,587		$4,800		$13,387
mD	Relocate Honeywell Delta 1000	1	ls	320.0	451	$33.93			15,000		$15,288		$15,000		$30,288
mD	O.H. Comm/Phone Lines	2,500	lf	0.023	80	$38.12			3.65		$3,067		$9,125		$12,192
mD	Telephone Tie-in	400	hr	1.000	563	$38.12			30.00		$21,467		$12,000		$33,467
mD	Allowance for Hardware	320	hr	1.000	451	$38.12			30.00		$17,174		$9,600		$26,774
mD	Overhead Honeywell Cable	2,500	lf	0.016	56	$38.12			2.81		$2,147		$7,025		$9,172
mD	Honeywell Tie-in	400	hr	1.000	563	$38.12			30.00		$21,467		$12,000		$33,467
mD	Allowance for Hardware	160	hr	1.000	225	$38.12			30.00		$8,587		$4,800		$13,387
mD	Premobilization	1	ls	120.0	120	$30.18					$3,622				$3,622
mD	Traffic Control	1	ls	160.0	160	$33.93			500.00		$5,400		$500		$5,900
mD	Other misc. requirements as re	1	ls	160.0	160	$33.93			500.00		$5,400		$500		$5,900
mD	Complete Punch List items.	1	ls	320.0	320	$33.93					$10,900				$10,900
mD	Other area requirements.	1	ls	160.0	160	$33.93					$5,400				$5,400
mD	Decomtaminate	1	ls	80.0	80	$33.93					$2,700				$2,700
	Communications Center	**1**	**LOT**		**6,292**	**$36.80**					**$231,540**	**$150,000**	**$146,530**	**$36,000**	**$564,070**

WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

LOCATION: FERNALD
TASK NO.: APRJ3

PPE LEVEL	T-45/T-46 Renovation	QTY	UNIT	MAN-HOURS Unit	MAN-HOURS Total	MAN-HOURS Rate	COST / UNIT Labor	COST / UNIT S/C	COST / UNIT Mat'l	COST / UNIT Equip	LABOR	S/C	MAT'L	EQUIP	TOTAL
	To renovate Trailers T-45 & T-46.														
mD	Remove Trailer Skirting	1	ls	20.0	20	$33.93					$679				$679
mD	Conduit, 1 1/2" dia, RGS	200	lf	0.100	28	$38.12			1.70		$1,073		$340		$1,413
mD	Conduit fittings, 1 1/2" dia	2	ls	8.000	23	$38.12			100.00		$859		$200		$1,059
mD	Outlet Strip	3	ea	4.000	17	$38.12			150.00		$644		$450		$1,094
mD	Fume Hood & Stack	1	ea	100.0	141	$38.12			8,450		$5,367		$8,450		$13,817
mD	Junction Box	1	ea	0.727	1	$38.12			100		$39		$100		$139
mD	Disconnect Switch 480v 3ph	1	ea	8.000	11	$38.12			250.00		$429		$250		$679
mD	1/C #12 THHN Wire	150	lf	0.024	5	$38.12			0.98		$195		$147		$342
mD	Electrical Tie-In	20	hr	1.000	28	$38.12			10.00		$1,073		$200		$1,273
mD	Lock and Tag	20	hr	1.000	28	$38.12					$1,073				$1,073
mD	Allowance for Hardware	20	hr	1.000	28	$38.12			10.00		$1,073		$200		$1,273
mD	3/4" Ext Plywood	32	sf	0.016	1	$36.72			1		$26		$19		$45
mD	Wall Demolition	1	ls	20.0	28	$36.72					$1,034				$1,034
mD	Partition Install	1	ls	50.0	70	$36.72			500		$2,585		$500		$3,085
mD	Piers for Calibrator	4	ea	4.000	23	$36.72			20		$827		$80		$907
mD	Trailer Skirting	1	ls	20.0	20	$33.93			100.00		$679		$100		$779
mD	Relocate Security Fencing	1	ls	20.0	20	$33.93			1,000.00		$679		$1,000		$1,679
mD	Premobilization	1	ls	40.0	40	$30.18					$1,207				$1,207
mD	Other misc. requirements as re	1	ls	40.0	40	$33.93			500.00		$1,400		$500		$1,900
mD	Complete Punch List items.	1	ls	40.0	40	$33.93					$1,400				$1,400
mD	Other area requirements.	1	ls	40.0	40	$33.93					$1,400				$1,400
mD	Electrical Renovation	1	ls	240.0	240	$38.12			1,600.00		$9,100		$1,600		$10,700
mD	Shoring	1	ls	540.0	540	$33.93			2,400.00		$18,300		$2,400		$20,700
	T-45/T-46 Renovation	**1**	**LOT**		**1,432**	**$35.71**					**$51,140**		**$16,540**		**$67,680**

PROJECT: Health & Safety Building Relocation
ESTIMATE NO.: III-2001-05-002 R1
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 30-Jul-01
ESTIMATO Ed Lumbert
LOCATION FERNALD
TASK NO.: APRJ3

PPE LEVEL	44A (T-1) Renovation	QTY	UNIT	MAN-HOURS Unit	MAN-HOURS Total	MAN-HOURS Rate	COST / UNIT Labor	COST / UNIT S/C	COST / UNIT Mat'l	COST / UNIT Equip	LABOR	S/C	MAT'L	EQUIP	TOTAL
	Renovate trailer T-1.														
mD	Drywall, 1/2", taped & finished	1,920	sf	0.017	46	$36.72			0.19		$1,688		$357		$2,045
mD	Metal Stud, 3 5/8" x 8'	640	lf	0.019	17	$36.72			0.24		$629		$152		$781
mD	Metal Track, 3 5/8" x 10'	230	lf			$36.72			0.24				$55		$55
mD	Layout & Install Metal Track to F	230	lf	0.024	8	$36.72			0.1		$285		$23		$308
mD	Joint Compound	3	ea			$36.72			12				$36		$36
mD	Joint Tape	1	ea			$36.72			8				$8		$8
mD	Corner Bead, galv 1 1/4" x 1 1/4	270	lf	0.023	9	$36.72			0.11		$320		$29		$349
mD	Screw, Drywall 1 1/4"	1	box			$36.72			56				$56		$56
mD	Screw, Pan Hd Self Tapping 7/1	2	box			$36.72			7.9				$16		$16
mD	Bit, Phillips Hd #2 x 12 x 60	1	box			$36.72			7				$7		$7
mD	Finishing Allowance	1	ls						15				$15		$15
mD	Stairs, Hand Rail and Misc Car	65	hr						1.5				$98		$98
mD	Painting Allowance	1	ls	24.0	34	$36.87			85		$1,246		$85		$1,331
mD	Cove Base, std 4" and Mastic	230	lf	0.025	8	$36.72			0.87		$297		$200		$497
mD	Door, 3 x 7 pre-hung	4	ea	2.500	14	$36.72			100		$517		$400		$917
mD	Door, Accordian	1	ea	8.000	11	$36.72			4,360		$414		$4,360		$4,774
mD	Wood Framing Accordian Door	1	ea	8.000	11	$36.72			100		$414		$100		$514
mD	Honeywell Alarms & Smoke De	1	ls	40.0	56	$38.12			3151		$2,147		$3,151		$5,298
mD	Conduit, 1" rgs	300	lf	0.114	48	$36.72			1.86		$1,768		$558		$2,326
mD	Conduit Fittings 1"	4	ls	8.000	45	$36.72			1.86		$1,654		$7		$1,661
mD	Overhead Honeywell Cable	160	lf	0.016	4	$38.12			2.81		$137		$450		$587
mD	Honeywell Tie-in	20	hr	1.000	28	$38.12			10.00		$1,073		$200		$1,273
mD	Allowance for Hardware	20	hr	1.000	28	$38.12			10.00		$1,073		$200		$1,273
mD	1/C #12 THHN Wire	180	lf	0.024	6	$38.12			0.98		$234		$176		$410
mD	Light Unit	4	ea	1.300	7	$36.72			100		$269		$400		$669
mD	Existing Lighting Relocation	1	ls	20.0	28	$36.72			100		$1,034		$100		$1,134
mD	Allowance for Hardware	40	hr	1.000	56	$38.12			10.00		$2,147		$400		$2,547
mD	Electrical Tie-In	40	hr	1.000	56	$38.12			10.00		$2,147		$400		$2,547
mD	Premobilization	1	ls	120.0	120	$30.18					$3,622				$3,622
mD	Other misc. requirements as re	1	ls	160.0	160	$33.93			500.00		$5,400		$500		$5,900
mD	Complete Punch List items.	1	ls	160.0	160	$33.93					$5,400				$5,400
mD	Other area requirements.	1	ls	80.0	80	$33.93					$2,700				$2,700
mD	Flooring Replacement	1	ls	640.0	640	$36.72			8,380.00		$23,500		$8,380		$31,880
mD	Shoring	1	ls	320.0	320	$33.93			2,000.00		$10,900		$2,000		$12,900
	44A (T-1) Renovation	**1**	**LOT**		**2,002**	**$35.48**					**$71,020**		**$22,920**		**$93,940**

PROJECT: Health & Safety Building Relocation
ESTIMATE NO.: IH-2001-05-002 R1
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 30-Jul-01
ESTIMATO Ed Lumbert
LOCATION: FERNALD
TASK NO.: APRJ3

PPE LEVEL	Services Building Renovation	QTY	UNIT	MAN-HOURS Unit	MAN-HOURS Total	MAN-HOURS Rate	COST / UNIT Labor	COST / UNIT S/C	COST / UNIT Mat'l	COST / UNIT Equip	LABOR	S/C	MAT'L	EQUIP	TOTAL
	Renovate Service Building.														
mD	3/4" Plywood and framing	1	ls	12.0	17	$36.72			150.00		$620		$150		$770
mD	Lock and Tag	8	hr	1.000	11	$38.12					$429				$429
mD	Exterior Lighting	1	ea	2.000	3	$38.12			150.00		$107		$150		$257
mD	Conduit, 1 1/2" dia, RGS	50	lf	0.100	7	$38.12			1.70		$268		$85		$353
mD	Conduit fittings, 1 1/2" dia	1	ls	8.000	11	$38.12			100.00		$429		$100		$529
mD	1/C #12 THHN Wire	200	lf	0.024	7	$38.12			0.98		$260		$196		$456
mD	Electrical Tie-In	12	hr	1.000	17	$38.12			10.00		$644		$120		$764
mD	Remove Wood Double Door	1	ls	12.0	17	$36.72					$620				$620
mD	Metal Door, fire rated	1	ea	5.400	8	$36.72			900.00		$279		$900		$1,179
mD	Panic Hardware	1	ls	4.000	6	$36.72			400.00		$207		$400		$607
mD	Painting Allowance	1	ls	10.0	14	$36.87			100.00		$519		$100		$619
mD	Premobilization	1	ls	16.0	16	$30.18					$483				$483
mD	Other misc. requirements as re	1	ls	10.0	10	$33.93			300.00		$300		$300		$600
mD	Complete Punch List items.	1	ls	12.0	12	$33.93					$400				$400
mD	Other area requirements.	1	ls	12.0	12	$33.93					$400				$400
	Services Building Renovation	**1**	**LOT**		**167**	**$35.71**					**$5,970**		**$2,500**		**$8,470**

PROJECT: Health & Safety Building Relocation
ESTIMATE NO.: IH-2001-05-002 R1
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 30-Jul-01
ESTIMATO Ed Lumbert
LOCATION: FERNALD
TASK NO.: APRJ3

PPE LEVEL	e-Eng Building Purchase (APF	QTY	UNIT	MAN-HOURS			COST / UNIT				LABOR	S/C	MAT'L	EQUIP	TOTAL
				Unit	Total	Rate	Labor	S/C	Mat'l	Equip					
mD	Purchase six-plex trailer	1	ea						425,000				$425,000		$425,000
mD	Purchase Communication Cent	1	ea						100,000				$100,000		$100,000
	Pre-Eng Building Purchase (APF	1	LOT										$525,000		$525,000

APPENDIX "A"

PROJECT: Health & Safety Building Relocation
ESTIMATE NO III-2001-05-002 R1
CLIENT: DOE
WBS NO.: 1.1.A.D

SITE SPECIFIC

EFFICIENCY / MULTIPLIER ANALYSIS

DATE: 30-Jul 01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: APRJ3

PERCENT OF INFLUENCE ON CHART MANHOURS

	40%	50%	60%	70%	80%	90%	100%	105%	110%	% OF INFLUENCE	WT'D VALUE	PROD. RESULT
CRAFT SKILL (NOTE 1)	POOR			FAIR			STD	V.GOOD	EXCELLENT	100.0%	12.0%	0.12
CRAFT AVAIL.(NOTE 1)		POOR		FAIR			STD			100.0%	8.0%	0.08
CLIMATE (NOTE 2)	SEVERE	ICE/SNOW			RAIN		+40 TO +85			90.0%	20.0%	0.18
PLANT ELEVATION		OVER 10,000FT			5,000' TO 10,000 FT		UNDER 5,000 FT			100.0%	5.0%	0.05
WORK SPACE	<---- MULTIPLE SHIFTS-			200 SF	250 SF	300 SF	350 SF			100.0%	10.0%	0.1
WORK WEEK							4-10s / 5-8s			100.0%	15.0%	0.15
50 HOUR WORK WEEK	//// MULTIPLE-SHIFT ////			OVER 7 WEEKS	3 TO 7 WEEKS	UP TO 3 WEEKS						
60 HOUR WORK WEEK			OVER 7 WEEKS	3 TO 7 WEEKS	UP TO 3 WEEKS							
SHIFTWORK 2ND SHIFT 3RD SHIFT			3RD SHIFT		2ND SHIFT		OR ONE SHIFT ONLY			100.0% 100.0%	3.0% 5.0%	0.03 0.05
PROJECT SIZE					400M MH AND UP	300M TO 400M MH	200M TO 300M MH	200M MH OR LESS		105.0%	4.0%	0.042
PLANT TYPE				REVAMP ONLY	REVAMP & NEW	NEW IN EXIST PLT	GRASS ROOTS			80.0%	8.0%	0.064
AREA/UNION INFLUENCE	STRONG		MILD		SOME		NONE			40.0%	10.0%	0.04
											100.0%	90.6%

NOTES.....
1. TURNOVER HAS BEEN CONSIDERED
2. FOR EXTERIOR WORK ONLY

EFFICIENCY (AS A % OFF CHART MANHOURS) 90.6%

MULTIPLIER - (TO BE APPLIED TO CHART M.H.'S TO OBTAIN SITE M.H.'S) 1.10

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SUPPORT CONTRACTOR - Stated in FY01 DOLLARS

APPENDIX "B"

EFFICIENCY FACTORS

PROJECT: Health & Safety Building Relocation
ESTIMATE N IH-2001-05-002 R1
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 30-Jul-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: APRJ3

EXAMPLE:

STANDARD CHART MANH	NET	100
EFFICIENCY FACTORS:		
* SITE SPECIFIC (SEE API	10%	10.0
S/T = BASE UNIT MANHOURS		110
OVERTIME PRODUCTIVIT	0.00%	0
(SEE DETAIL WORKSHEET BACI		110
* TASK SPECIFIC (confinec	0.0%	0
high elevation, congestion, etc.)		110

* PPE SPECIFIC (Based on current data and estimating knowledge)

	PPE LEVEL											
	D		Mod.'D'		Mod. "C"		C		C+		B	
PRODUCTIVITY HOU	MH's		MULTIPLIER	MH's	MULTIPLIER	MH's	MULTIPLIER	MH's	MULTIPLIER	MH's	MULTIPLIER	MH's
(AS A %) / ADD MH's	4.00%	4	#####	31	66.00%	73	#####	81	#####	106	######	121
ULTIPLIER)/TOTAL HRS	1.04	114.4	1.28	140.8	1.66	182.6	1.74	191.4	1.96	215.6	2.10	231
OTAL MULT. * SITE PROI	1.144		1.408		1.826		1.914		2.156		2.156	
	11.0	Man Days	14.0	Man Days	18.0	Man Days	19.0	Man Days	22.0	Man Day	23.0	Man Days

NOTE : Use the Default Productivity Factor of 'mC' for working in a contaminated area if the Safety Level cannot be determined.

(SEE FD FERNALD ESTIMATING SERVICES REFERENCE MANUAL IM-6006 8.10)

Total hours worked in a specific PPE level divided by 10 hour working days = (PPE) ManDays to determine material cost of PPE's.
(SEE APPENDIX C - HEALTH PHYSICS)

THESE EFFICIENCY FACTORS WERE APPLIED INDIVIDUALLY THROUGHOUT THE ESTIMATE AT A TASK SPECIFIC LEVEL, TO OBTAIN A MORE ACCURATE ACCOUNT OF OVERALL EFFICIENCY IMPACT DUE TO PPE REQUIREMENTS IN HANDLING CONTAMINATED AND HAZARDOUS WASTE.

APPENDIX "B"

EFFICIENCY FACTORS

PROJECT: Health & Safety Building Relocation
ESTIMATE N IH-2001-05-002 R1
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 30-Jul-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: APRJ3

PPE MULTIPLIER DEVELOPEMENT

	D	mD	mC	C	C+	B
CREW SIZE & MA STANDARD	7	7	7	7	7	7
WORKER-BUD	0	0	0	0	0	0
SUPPORT TEA	0	0	0	0	0	0
TOTAL CREW	7	7	7	7	7	7
CREW SIZE RATIO	1.00	1.00	1.00	1.00	1.00	1.00
AVAILABLE WORK TIME FACTOR	0.96	0.78	0.70	0.70	0.68	0.68
PPE LABOR PRODUCTIVITY FAC	1	1	0.86	0.82	0.75	0.70
NET PRODUCTIVITY RATIO	0.96	0.78	0.602	0.574	0.51	0.476
NET PRODUCTIVITY MULTIPLIER	1.04	1.28	1.66	1.74	1.96	2.10

These factors were based on Tables 6.1 and 6.2, Moderate Work Efforts, 66F to 85F temperature of 'Hazardous Waste Cost Control' by R.A.Selg.
Modifications were made to reflect a 10 hour work day and no buddy system or support team for levels D, mC and C.
The worker-buddy and support team members, if required, may be covered under Construction Mgmt. (Rad Techs).

AVAILABLE WORK TIME FACTOR		D	mD	mC	C	C+	B
TOTAL WORK MII 4 - 10's		600	600	600	600	600	600
ADDITN'L.SITE SAFETY M	QUANTIT	1	1	1	1	1	1
	MINUTES	25	25	25	25	25	25
TOTAL		25	25	25	25	25	25
PPE DON & DOFFING	QUANTIT	0	0	3	3	3	3
(ADJUST LEVEL D per W	MINUTES	0	0	15	15	20	20
TOTAL			0	45	45	60	60
WORK BREAKS	QUANTIT	N/A	2	2	2	2	2
(ADJUST LEVEL D per W	MINUTES	N/A	15	15	15	15	15
TOTAL			30	30	30	30	30
MOBILIZATION - ROUND	QUANTIT	N/A	4	4	4	4	4
(ADJUST LEVEL D per W	MINUTES	N/A	15	15	15	15	15
TOTAL			60	60	60	60	60
COOLDOWNS PER DAY	QUANTIT	N/A	4	4	4	4	4
** (4 OUT OF 12 M	##### MINUTES	N/A	15	15	15	15	15
TOTAL			20	20	20	20	20
AIR TANK REPLACEMEN	QUANTIT	N/A	N/A	N/A	N/A	N/A	N/A
	MINUTE	N/A	N/A	N/A	N/A	N/A	N/A
TOTAL							
AVAILABLE WORK TIME		575	465	420	420	405	405
AVAILABLE WORK TIME FACTO		0.96	0.78	0.7	0.7	0.68	0.68

NOTE: Adjust 'Work Minutes per Day' basis to: 5 - 8's, or leave as 4 - 10's. Any other circumstances, over-ride the minutes per day.

** Assumption based on work performed in May, June, July & August, pro-rating cost over one year. Adjust % to individual circumstances.

APPENDIX "C"

HEALTH PHYSICS

PROJECT: Health & Safety Building Relocation
ESTIMATE NO IH-2001-05-002 R1
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 30-Jul-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: APRJ3

PPE's - PERSONAL PROTECTIVE EQUIPMENT

DESCRIPTION	UNIT	UNIT COST	* NO. OF CHANGE OUTS PER WORKER PER DAY / Man Days (TOTAL HOURS worked in PPE's Div. by WORK HOURS/DAY)			
PPE LEVEL C / C+		$'s	*	MAN DAYS	MAT'L.$'s	LEVEL
LAUNDRY COST per CHANGE	SET	1.96	1	0	$0	C/B
TYVEK COVER-ALL w/HOOD & BOOTIES - DIS	EA	4.46	3	0	$0	C/B
TYVEK COVER-ALL w/HOOD & BOOTIES - DIS	EA	4.46	3	0	$0	C/B
GLOVE LINER - DISPOSABLE	PR	0.24	3	0	$0	C/B
GLOVE, LASTEX - DISPOSABLE	PR	0.26	3	0	$0	C/B
GLOVE, WORK - DISPOSABLE	PR	1.02	3	0	$0	C/B
APR CARTRIDGES - DISPOSABLE, CLEANING	PR	9.38	3	0	$0	C/B
SUB-TOTAL				0	$0	
				$/MD =	#DIV/0!	

PPE LEVEL mC)RESS w/ FACE SHIELD		$'s		MAN DAYS	MAT'L.$'s	LEVEL
LAUNDRY COST per CHANGE	SET	1.96	1	0	$0	mC
LT.WT. DISPOSABLE COVERALLS W/HOOD &	PR	4.46	3	0	$0	mC
GLOVE LINER - DISPOSABLE	PR	0.24	3	0	$0	mC
GLOVE, LASTEX - DISPOSABLE	PR	0.26	3	0	$0	mC
GLOVE, WORK - DISPOSABLE	PR	1.02	3	0	$0	mC
SUB-TOTAL				0	$0	mC
				$/MD =	#DIV/0!	

PPE LEVEL D						
LAUNDRY COST per CHANGE	SET	1.96	1	0	$0	D

SUBCONTRACTOR REQUIRED PURCHASES	UNIT		QTY. PER WKR.	NO. OF WORKERS	MAT'L. $'s	LEVEL
RUBBER BOOT COVERS-(1)PR.PER WORKER	PR	12.70	6	0	$0	D/C/B
APR w/HALF FACE MASK - (1) PER WORKER	EA	22.30	6	0	$0	C
APR w/FULL FACE MASK - (1) PER WORKER	EA	174.00	6	0	$0	C
SCBA	EA	1894.00	2	0	$0	B
COOL VESTS	EA	137.50	6	0	$0	C/B
THERMO STRIPS	EA	50.00	6	0	$0	C/B
SUB-TOTAL					$0	C/B

Total PPE Matl $ and Laundry $	$0

(FORWARD TO PAGE 2 OF 2)

OTHER PPE's SUCH AS HARD HAT, SAFETY GLASSES/GOGGLES, STEEL TOED SAFETY SHOES, HEARING PROTECTION, ARE CONSIDERED THE SUBCONTRACTORS RESPONSIBILITY AND ARE COVERED IN HIS OVERHEAD EXPENSE.
FD FERNALD SUPPLIED PPE's, SUCH AS COTTON COVERALLS, EXCHANGE OF RUBBER BOOT COVERS AND RESPIRATORS FOR CHANGEOUTS AND CLEANING OF SAME IS INCLUDED.

APPENDIX "C"

HEALTH PHYSICS

PROJECT: Health & Safety Building Relocation
ESTIMATE NO IH-2001-05-002 R1
CLIENT: DOE
WBS NO.: 1.1.A.D

DATE: 30-Jul-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: APRJ3

--MEDICAL MONITORING --

MEDICAL - PHYSICAL and IN-VIVO MONITORING - LOST WORKER TIME for RAD II WORKERS ONLY

DESC. PHYSICAL (3hrs), IN-VIVO (1hr)	QTY	HRS	WKR	TOTAL HOURS	AVG. LABOR RATE	TOTAL LABOR $
BASELINE PHYSICALS	1	4	16	64	$36.32	$2,320
ANNUAL PHYSICALS	0	4	16	0	$36.32	$0
EXIT (TERMINATION) PHYSICALS (IN-VIVO)	1	1	16	16	$36.32	$580
SUB-TOTAL						$2,900

RADIATION IN-VITRO SURVEILLANCE - LOST WORKER TIME for RAD II WORKERS ONLY

DESC.	QTY	HRS	WKR	TOTAL HOURS	AVG. LABOR RATE	TOTAL LABOR $
BI-MONTHLY BIOASSAY	3	1	16	52	$36.32	$1,870
SUB-TOTAL						$1,870

RANDOM DRUG TESTING

	TESTS	HRS	TOTAL HRS	AVG. RATE	LABOR $'s
	9	2	18	$36.32	$700

NO. OF WKRS. TESTED	TESTING DAYS PER YR.	AVG. NO. OF TESTS PER DAY	CHANCE/ DAY FOR TEST	NO. OF WKRS. FOR THIS ESTIMATE	CHANCES /DAY FOR TEST for this PROJECT	CONSTR WORKING DAYS
2500	226	11	0.0044	16	0.0704	122

		LABOR $'s THRU SAFETY	LABOR $'s
WORK DELAYS CAUSED BY MONITORING	1.0%	$695,630	$7,000
			LABOR $'s
WORK DELAYS CAUSED BY RAD CHECKING	1.0%	$695,630	$7,000

	TOTAL LABOR	TOTAL MAT'L.	GRAND TOTAL
TOTAL HEALTH PHYSICS - FORWARD TO ESTIMATE SUMMARY SHEET	$19,500	$0	$19,500

ACTIVITY DURATIONS

PROJECT: Health & Safety Building Relocation
ESTIMATE N IH-2001-05-002 R1
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 30-Jul-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: APRJ3

ACTIVITY	EST. DATE	START DATE	MID POINT	COMPL. DATE	ACTIVITY DURATION	
CONSTRUCTION:	12-May-01	14-May-01	20-Aug-01	26-Nov-01	6.4	MONTHS
					0	MONTHS
TOTAL					6.4	MONTHS

	DATE of EST. to MID-POINT ACTIVITY DURATION	
a.	3.3	MONTHS
b.	0	MONTHS

ACTIVITY	EST. DATE	START DATE	MID POINT	COMPL. DATE	ACTIVITY DURATION	
OPERATIONS					0	MONTHS

DATE of EST. to MID-POINT ACTIVITY DURATION	
0	MONTHS

ACTIVITY DURATION IS USED IN DETERMINING NUMBER of WORKERS for CERCLA/SAT TRAINING HOURS and HEALTH PHYSICS COSTS.

Health & Safety Building Relocation

indirect factors								
wise	1.370427	matl		1.159929631	equip	1.059783		
	wise	wise tot	mtl		matl tot	equip	equip tot	subs
6 plex	162200	222,283		36840	42,732	800	848	36,000
comm center	231500	317,254		146530	169,964	36000	38,152	150,000
t45/46 reo	51140	70,084		16540	19,185			
44a reno	71020	97,328		22920	26,586			
service bldg reno	5970	8,181		2500	2,900			
totalwise	521830	715,130		225330	261,367			
aprj1 med complex				425000	492,970			
comm trailer				100000	115,993			
total matl				750330	870,330			
total equip						36000	38,152	
total subs								186,000
total estimate	1809612							

WBS DICTIONARY
CONTROL ACCOUNT/CHARGE NUMBER

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.A.D	FACILITY PROJECTS	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		03/01 - 09/04
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
APRJ4	MISCELLANEOUS RELOCATION PROJECTS	

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Subcontractors
Materials
ODC's

b. TECHNICAL CONTENT:

This account is required to perform (execute) and provide oversight to the following miscellaneous relocation projects:

- RENOVATION OF SOUTHWEST BOILER HOUSE (93A)
  This project provides for the renovation of the existing Boiler House (93A) to house the Emergency Response Team (includes the Fire Department, EMTs, SCBA storage, fire trucks, fire gear, hoses, etc.)

- RELOCATION OF TRAILER 86 and TRAILER 87
  This scope contains activities for the dismantlement and preparation of T86 & T87 for relocation from the Process Area to Area 7. The trailer will be set-up in Area 7 and all necessary utilities will be installed and connected. Associated electrical lines remaining in the Process Area will be redistributed.

- RELOCATION OF TRAILER 84
  This scope contains activities for the dismantlement, preparation of T84 for relocation from the Process Area to Area 7, relocation, and installation at the new location.

- CONSTRUCTION OF PRE-ENGINEERED BUILDING FOR EQUIPMENT DISPOSITION FUNCTION AND RENOVATION OF T-33
  This charge number includes installing a pre-engineered metal

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.A.D	FACILITY PROJECTS	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		03/01 - 09/04
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
APRJ4	MISCELLANEOUS RELOCATION PROJECTS	

14. ELEMENT TASK DESCRIPTION

building on the existing "RIMIA Pad" and the renovation of T-33 for the Property Disposition function.

c. SCOPE OF WORK:

RENOVATION OF SOUTHWEST BOILER HOUSE (93A)

- Install new furnace/blowers to provide gas heat within the building
- Refurbish the existing gas line to the new furnace and install ducts within the building to provide heat
- Install blacktop on west end of Boiler House to tie into roads
- Revise west structural wall to provide electrical operated doors
- Insulate boiler house
- Remove concrete equipment foundations/pedestals to slab and finish
- Install strip lighting and add electrical receptacles as engineered
- Seal holes left by removal of any salvageable equipment

RELOCATION OF TRAILER 86 AND TRAILER 87

- Mobilize job boxes and materials
- Dismantle sprinkler piping and components to accommodate disassembly of trailers
- Remove skirting, piers and anchors
- Install trailer tongues and wheels if required
- Remove flashing at centerline
- Separate trailer sections at centerline and prepare trailers for moving
- Establish traffic control for movement of trailer sections
- Relocate trailer sections
- Mobilize tools, equipment and materials to new location
- Block, level, join, and anchor trailer sections
- Install sealant and flashing to provide weather tight installation
- Tie-in electrical feed from predetermined location
- Install electrical disconnect and transformer

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.A.D	FACILITY PROJECTS	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		03/01 - 09/04
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
APRJ4	MISCELLANEOUS RELOCATION PROJECTS	

14. ELEMENT TASK DESCRIPTION

- Tie-in Honeywell panel from predetermined location
- Install new telephone cable
- Redistribute electrical lines at process area location
- Test electrical and Honeywell
- Demobilization

RELOCATION OF TRAILER 84

- Mobilize job boxes and materials
- Dismantle sprinkler piping and components to accommodate disassembly of trailer
- Remove skirting, piers and anchors
- Install trailer tongues and wheels if required
- Remove flashing at centerline
- Separate trailer sections at centerline and prepare trailer for moving
- Establish traffic control for movement of trailer sections
- Relocate trailer sections
- Mobilize tools, equipment and materials to new location
- Block, level, join, and anchor trailer sections
- Install sealant and flashing to provide weather tight installation
- Tie-in electrical feed from predetermined location
- Install electrical disconnect and transformer
- Tie-in Honeywell panel from predetermined location
- Install new telephone cable
- Test electrical and Honeywell
- Demobilization

CONSTRUCTION OF PRE-ENGINEERED BUILDING FOR EQUIPMENT DISPOSITION FUNCTION AND RENOVATION OF T-33

- Provide compacted gravel pad for ten Sealand Containers adjacent to the north side covered off-loading facility.
- Erect a 6000 sq. ft. pre-engineered metal building on the existing 60'x100' concrete RIMIA Pad for Property Disposition. The installation will include: insulation, minimum electric radiant heat, lighting, and sitewide

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.A.D	FACILITY PROJECTS	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		03/01 - 09/04
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
APRJ4	MISCELLANEOUS RELOCATION PROJECTS	

14. ELEMENT TASK DESCRIPTION

communication/fire alarm system. There will be two mandoors and two manually operated overhead doors.
- Building Code requires an eight inch height clearance from existing grade to the bottom edge of the building. To comply with this requirement, a concrete curb (8"x8") will be installed around the entire slab perimeter. The structural steel base plate and columns will be anchored to the curb with anchor bolts.
- Upgrades to T-33 include: electrical upgrade, coating trailer roof, purchase and install two awnings, install two entry ramps, remove bathroom fixtures and repair holes due to removal, install fire rated phone board, repair entrance doors, provide telecommunication terminations new phone board, and caulk siding and windows.

d. WORK SPECIFICALLY EXCLUDED:

- Other resources required for planning, field and closeout activities that are not budgeted in their work scope will be budgeted in other charge numbers.
- Computer purchases and upgrades.
- Fluor Fernald General and Administrative Budget.

RENOVATION OF SOUTHWEST BOILER HOUSE (93A):

- Work involving the conversion of AWWT to gas is excluded from this scope
- Work to take the Boiler House steam off-line is excluded from this scope
- Salvageable equipment removal activities is excluded from this scope
- Budget for Labor Hour Contractor support and planning (covered in ASVC6)
- Budget for Engineering, relocation of personnel and office equipment, and FAT&LC
- Renovations of T-135 or another trailer which is used to house the EMT/Fire personnel
- Equipment rentals and major tool purchases

RELOCATION OF TRAILER 86 AND TRAILER 87

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.A.D	FACILITY PROJECTS	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		03/01 - 09/04
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
APRJ4	MISCELLANEOUS RELOCATION PROJECTS	

14. ELEMENT TASK DESCRIPTION

- Maintenance support functions
- Honeywell support functions
- Relocation of personnel and furniture
- Subcontractor costs for physical relocation activities
- Domestic water, sanitary, and fire water for trailer

RELOCATION OF TRAILER 84

- Maintenance support functions
- Honeywell support functions
- Relocation of personnel and furniture
- Subcontractor costs for physical relocation activities
- Domestic water, sanitary, and fire water for trailer

CONSTRUCTION OF PRE-ENGINEERED BUILDING FOR EQUIPMENT DISPOSITION FUNCTION AND RENOVATION OF T-33

- Purchase of pre-fab building.
- Purchase of Sealands.

SECTION 4

1.0 NARRATIVE

1. PROJECT TITLE: FACILITY AND PROJECT SUPPORT	2. DATE: 09/10/01	3. PBS#: 01
4. WBS ELEMENT CODE: 1.1.A.D	5. WBS ELEMENT TITLE: FACILITY PROJECTS	
6. CAM NAME/ PHONE: ROBERT HAMMACK	7. CAM SIGNATURE:	
8. ORIGINAL/ CHANGE SCOPE/ PER CP#:	9.CONTROL ACCOUNT: APRJ	

PART 4: APRJ – FACILITY PROJECTS
Section 4: APRJ4 – Miscellaneous Relocation Projects

1.0 NARRATIVE

1.1 OVERVIEW

This closure plan defines the scope of work required to perform (execute), manage, provide oversight, plan, and administer the following tasks:

1.1.1 Renovation of Southwest Boiler House (93A)

This project provides for miscellaneous relocation projects including the renovation of the existing Boiler House (93A) to house the Emergency Response Team (includes the Fire Department, EMTs, SCBA storage, fire trucks, fire gear, hoses, etc.)

1.1.2 Relocation of Trailer 86 and Trailer 87

This scope contains activities for the dismantlement and preparation of T86 & T87 for relocation from the process area to a predetermined location in Area 7. At the new location set up trailer and install all necessary utilities. Redistribute electrical lines at location in the process area.

1.1.3 Relocation of Trailer 84

This scope contains activities for the dismantlement, preparation of T84 for relocation from the process area to a predetermined location in Area 7, relocation, and installation at the new location.

1.1.4 Construction of Pre-Engineered Building for Equipment Disposition Function and Renovation of T-33

This charge number includes installing a pre-engineered metal building on the existing "RIMIA Pad" and the renovation of T-33 for the Property Disposition function.

1.2 ASSUMPTIONS/EXCLUSIONS

1.2.1 Assumptions

1.2.1.1 Renovation of Southwest Boiler House (93A)

- Assume the ERT functions remain the same after 2004
- The Southwest Boiler House (93A) steam will be taken off-line in May 2004
- Renovation of Building 93A will begin in June 2004
- If all unused equipment is removed, the Boiler Plant is adequate space to house the aforementioned functions
- The existing electrical supply is sufficient and meets applicable codes
- Air compressors will remain in place
- The Brine Tank and piping will remain in place
- Assumes the EMT/Fire personnel will be housed in T-135 and/or other trailers on site
- Assume the construction contractor and/or Fluor Fernald owns adequate tools and equipment to perform the work
- Manpower calculations are based on the following four possible sources: Historical Data (HD), Industry Standard (IS), Composite of HD & IS (Comp), and Professional Judgement (PJ). See Calculation Table in Section V for calculations by work scope activity/sub activity
- Other Direct Costs (ODCs) are based on FY00 actual cost of work performed and budgeted manpower (FTEs). ~~, as follows: ODC$s/FTEs. Minimum of $100/FTE will be used if FY00 calculations are < $100/FTE.~~ See Section 1.6 for quotient, by work scope function

R1-F01-002

- ~~Premium~~ Overtime is based on FY00 actual cost of work performed overtime hours (OT) and regular (Reg) hours, as follows: OT/Reg. See Section 1.5 for quotient, by work scope function

R1-D-048

- Material rates are broken down into two parts: 1-General Materials and 2-Additional Materials. General Materials are based on data supplied by Estimating Services. Additional Materials are based on FY00 ACWP data. See section 1.5 for materials rates.

- Subcontractor dollars are based on existing subcontracts at time of this baseline and anticipated new subcontracts not currently in place.

R1-F01-001

- Dollar amounts are unescalated
- All calculations for manpower, subcontracts, materials, and ODCs are based on a 12-month year for 2002, 2003, 2004, 2005, 2006, 2007, 2008, and 2009
- All overtime is planned overtime
- Assume that all work activities are based on a 40-hour workweek
- The basis of this estimate assumes the use of Remediation Schedule, and Execution 6 Scenario
- Sales Tax @ 6% for all taxable items
- Estimate is expressed in FY01 dollars
- Estimate represents budget for the length of this charge number

1.2.1.2 Relocation of Trailer 86 and Trailer 87

- Assumes future need for office space requirements
- Assumes work will be performed by LHSC
- Assumes new location will be on existing pavement

R1-F01-001

- Dollar amounts are unescalated
- All calculations for manpower, subcontracts, materials, and ODCs are based on a 12-month year for 2002, 2003, 2004, 2005, 2006, 2007, 2008, and 2009
- All overtime is planned overtime
- Assume that all work activities are based on a 40-hour workweek
- The basis of this estimate assumes the use of Remediation Schedule, and Execution 6 Scenario
- Sales Tax @ 6% for all taxable items
- Estimate is expressed in FY01 dollars
- Estimate represents budget for the length of this charge number

1.2.1.3 Relocation of Trailer 84

- Assumes future need for office space requirements
- Assumes work will be performed by LHSC
- Assumes new location will be on existing pavement

R1-F01-001

- Dollar amounts are unescalated
- All calculations for manpower, subcontracts, materials, and ODCs are based on a 12-month year for 2002, 2003, 2004, 2005, 2006, 2007, 2008, and 2009

- All overtime is planned overtime
- Assume that all work activities are based on a 40-hour workweek
- The basis of this estimate assumes the use of Remediation Schedule, and Execution 6 Scenario
- Sales Tax @ 6% for all taxable items
- Estimate is expressed in FY01 dollars
- Estimate represents budget for the length of this charge number

1.2.1.4 Construction of Pre-Engineered Building for Equipment Disposition Function and Renovation of Trailer 33

- The Northstar Warehouse lease will be cancelled and all RIMIA, Stores, and Equipment Disposition operations will be relocated on-site before 10/01
- The budget for negotiating/canceling leases and personnel moves is not included in this charge number
- Assume that Building 82A has adequate space for RIMIA & Stores operations and personnel
- Assume that the physical layout of Building 82A is adequate for RIMIA/Stores operations and no building renovation is required
- Ten Sealand containers must be provided and located adjacent to Building 82A for storage of Stores inventory
- Assume the Sealand containers are readily available on site and will not require additional funds to purchase new containers
- The budget to relocate Sealands is not included in this charge number
- Assume that after Building 82A undergoes D&D in 10/05, no construction work will be required to provide space for the RIMIA/Stores functions
- Assume that the new 6000 sq. ft. pre-engineered metal building to be located on the new "RIMIA Pad" is adequate space for Property Disposition operations
- Assumes the only utilities provided to the new pre-engineered building is electric and Honeywell communications/alarms
- Assume T-33 will be upgraded for the Property Disposition personnel in accordance with the Engineering evaluation performed in 9/00
- Assume no restroom facilities, automatic sprinkler system, or handicap facilities are required in T-33

- Assume Confined Space Simulator will be excessed by Property Management
- All office furniture currently located at Northstar will be excessed by Property Management or reused, excluding any need for storage of office equipment
- Construction of new building and upgrades of T-33 will be performed by the Labor Hour Subcontractor

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- Dollar amounts are unescalated
- All calculations for manpower, subcontracts, materials, and ODCs are based on a 12-month year for 2002, 2003, 2004, 2005, 2006, 2007, 2008, and 2009
- All overtime is planned overtime
- Assume that all work activities are based on a 40-hour workweek
- The basis of this estimate assumes the use of Remediation Schedule, and Execution 6 Scenario
- Sales Tax @ 6% for all taxable items
- Estimate is expressed in FY01 dollars
- Estimate represents budget for the length of this charge number

1.2.2 Exclusions

1.2.2.1 Renovation of Southwest Boiler House (93A)

- Any work involving the conversion of AWWT to gas is excluded from this scope
- Any work to take the Boiler House steam off-line is excluded from this scope
- All salvageable equipment removal activities is excluded from this scope
- Excludes budget for Labor Hour Contractor support and planning (covered in ASVC6)
- Excludes budget for Engineering, relocation of personnel and office equipment, and FAT&LC
- Excludes renovations of T-135 or another trailer which is used to house the EMT/Fire personnel

- Excludes equipment rentals and major tool purchases

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- Computer purchases and upgrades
- Does not include Fluor Fernald General Administrative Cost

1.2.2.2 Relocation of Trailer 86 and Trailer 87

- Excludes Maintenance Support Functions
- Excludes Honeywell Support Functions
- Excludes relocation of personnel and furniture
- Excludes subcontractor costs for physical relocation activities
- Excludes domestic water, sanitary and fire water for trailer

R1-F01-001

- Computer purchases and upgrades
- Does not include Fluor Fernald General Administrative Cost

1.2.2.3 Relocation of Trailer 84

- Excludes Maintenance Support Functions
- Excludes Honeywell Support Functions
- Excludes relocation of personnel and furniture
- Excludes subcontractor costs for physical relocation activities
- Excludes domestic water, sanitary and fire water for trailer

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- Computer purchases and upgrades
- Does not include Fluor Fernald General Administrative Cost

1.2.2.4 Construction of Pre-Engineered Building for Equipment Disposition Function and Renovation of Trailer 33

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- Computer purchases and upgrades
- Does not include Fluor Fernald General Administrative Cost~~None~~

1.2.3 Government-Furnished Equipment/Services

None

1.3 DRIVERS

1.3.1 Renovation of Southwest Boiler House (93A)

- D&D schedule for Vehicle Repair and Fire Shop (46) and Engine House/Garage (31A), activity ID 211BBWC

1.3.2 Relocation of Trailer 86 and Trailer 87

- Consistent with the Facility Infrastructure Integration and Closure Plan, for long term office space requirements
- Removes trailer in support of the future excavation of Area 4A, Activity #212EXU

1.3.3 Relocation of Trailer 84

- Removes trailer in support of the future excavation of Area 4A, Activity #212EXU

1.3.4 Construction of Pre-Engineered Building for Equipment Disposition Function and Renovation of T-33

- Cost Savings due to cancellation of Northstar lease and increased manpower efficiencies

1.4 PROJECT PHYSICAL DESCRIPTION

1.4.1 Southwest Boiler House

Building 93A North of AWWT

1.4.2 Relocation of Trailer 86 and Trailer 87

The two double wide trailer will be removed from the southwest corner of Plant 5 and re-installed in the West Overflow Parking lot east of Trailer 540.

1.4.3 Relocation of T-84

The doublewide trailer will be removed from the southwest corner of Plant 5 and will be reinstalled on the paved surface in the Southwest Parking lot east of Trailer 540

1.4.4 Construction of Pre-Engineered Building

The structure will be constructed on the existing concrete pad located north of Trailer 33

1.5 PROJECT PLAN/TECHNICAL SCOPE AND QUANTIFICATION

1.5.1 Renovation of Southwest Boiler House (93A)

1.5.1)1 Plan/Scope

- Install new furnace/blowers to provide gas heat within the building

- Refurbish the existing gas line to the new furnace and install ducts within the building to provide heat

- Install blacktop on west end of Boiler House to tie into roads

- Revise west structural wall to provide electrical operated doors

- Insulate boiler house

- Remove concrete equipment foundations/pedestals to slab and finish

- Install strip lighting and add electrical receptacles as engineered

- Seal holes left by removal of any salvageable equipment

- Materials associated with the scope of work include, but are not limited to:

  - 4-50,000 BTU blowers
  - Ductwork
  - Strip lights
  - Electrical receptacles and wiring
  - Insulation and fixtures
  - 10,000 square feet blacktop
  - 4 - 12'H x 12' W electrical overhead doors

- The scope of work for this charge number will require support for planning activities from the following organizations/resources which are budgeted in another cost account:

  - Engineering for Title I and II
  - Project Engineer
  - CCM
  - CE
  - Maintenance
  - Acquisitions
  - IH Engineer
  - and RAD Engineer

- The scope of work for this charge number will require support for field and close out activities from the following organizations/resources which are budgeted in another cost account:

  - CCM
  - CE
  - Rad Engineer

- Maintenance
- WAO
- Waste Generator Services

- The scope of work for this charge number will require support from the following organizations/resources which are included in this cost account:

  - GCBT&C direct craft
  - Safety Representative
  - Radiological Technicians
  - IH Technicians

Table 1.5.1)1 - Quantification Table
Renovation of Southwest Boiler House (93A)
Historical Data = (HD); Industry Standard = (IS); Composite of HD & IS = (Comp); Professional Judgement = (PJ)

Activity/Materials/ODC's	Sub-Activity	Calc Type	Calculations
Renovation of Southwest Boiler House (93A) **General Materials** - $.34/FTE **Additional Materials** needed to renovate Southwest Boiler House: 1) 4 – 50,000 BTU blowers 2) Ductwork 3) Strip lights 4) Electrical receptacles and wiring 5) Insulation and fixtures 6) 10,000 square feet blacktop 7) 4 – 12 foot X 12 foot electrical overhead doors Additional Material Cost - No estimate as of 4/27/01	Install new furnace/blowers to provide gas heat within the building	HD	**Subcontractors** .18 Electrician .5 Pipefitter .03 Safety **Fluor Fernald FTE's** .02 Rad Techs .02 IH TECHS
ODC's *ODC 600* - None *ODC 700* - None *ODC Travel* - None	Refurbish the existing gas line to the new furnace and install ducts within the building to provide heat	HD	**Subcontractors** .5 Pipefitter .03 Safety **Fluor Fernald FTE's.** .02 Rad Techs .02 IH TECHS
Subcontractors: *Wise - $439,000 total for APRJ4 Overtime = Overtime at 1.5x for Rad Tech 2.55%, Safety Engineer 2.21% and IH Tech 100% for Fluor Fernald Support only	Install blacktop on west end of Boiler House to tie into roads	HD	**Subcontractors** 03 Operator .91 Laborer .03 Safety **Fluor Fernald FTE's** .02 Rad Techs .02 IH TECHS
	Revise west structural wall to provide electrical operated doors	HD	**Subcontractors** .18 Electrician .91 Laborer **Fluor Fernald FTE's** .03 Safety .02 Rad Techs .02 IH TECHS
	Insulate boiler house	HD	**Subcontractors** 3 Insulator .03 Safety **Fluor Fernald FTE's** .02 Rad Techs .02 IH TECHS
	Remove concrete equipment foundations/pedestals to slab and finish	HD	**Subcontractors** .91 Laborer .03 Safety **Fluor Fernald FTE's** .02 Rad Techs .02 IH TECHS

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Table 1.5.1)1 - Quantification Table
Renovation of Southwest Boiler House (93A)
~~Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)~~

Activity/Materials/ODC's	Sub-Activity	Calc Type	Calculations
Subcontractors: **(Continued)**	Install strip lighting and add electrical receptacles as engineered	HD	**Subcontractors** .18 Electrician .03 Safety **Fluor Fernald FTE's** .02 Rad Techs .02 IH TECHS
	Seal holes left by removal of any salvageable equipment	HD	**Subcontractors** .91 Laborer .03 Safety **Fluor Fernald FTE's** .02 Rad Techs .02 IH TECHS

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~~HD - Historical Data~~
~~IS - Industry Standard~~
~~Comp - Composite of HD and IS~~
~~PJ - Professional Judgement~~

1.5.2 Relocation of Trailer 86 and Trailer 87

1.5.2)1 Plan/Scope

- Labor Hour Support/Craft type required:
  - Two (2) Carpenters
  - Two (2) Electricians
  - Two (2) Laborers
  - One(1) Teamster
  - One (1)Operator
  - One (1) Supervisor
  - One(1) Safety
- Mobilize job boxes and materials
- Dismantle sprinkler piping and components to accommodate disassembly of trailers
- Remove skirting, piers and anchors
- Install trailer tongues and wheels if required
- Remove flashing at centerline
- Separate trailer sections at centerline and prepare trailers for moving
- Establish traffic control for movement of trailer sections
- Relocate trailer sections
- Mobilize tools, equipment and materials to new location
- Block, level, join, and anchor trailer sections
- Install sealant and flashing to provide weather tight installation
- Tie-in electrical feed from predetermined location
- Install electrical disconnect and transformer

- Tie-in Honeywell panel from predetermined location
- Install new telephone cable
- Redistribute electrical lines at process area location
- Test electrical and Honeywell
- Demobilization

- The scope of work for this charge number will require support for planning activities from the following organizations/resources which are budgeted in another cost account:

  - Engineering for Title 1 and II
  - Project Engineer
  - CCM
  - CE
  - Maintenance
  - Acquisitions
  - IH Engineer
  - RAD Engineer

- The scope of work for this charge number will require support for field and close out activities from the following organizations/resources which are budgeted in another cost account:

  - CCM
  - CE
  - Rad Engineer
  - Maintenance
  - WAO
  - Waste Generator Services

- The scope of work for this charge number will require support from the following organizations/resources which are included in this cost account:

  - GBCT&C direct craft
  - Williams Scottsman subcontractors
  - Safety Representative
  - Radiological Technicians
  - IH Technicians

- Materials required for relocation will be estimated per the scope of work. Any tools and equipment required should be on hand and readily available

Table 1.5.2)2 - Quantification Table
Relocation of Trailer 86 and Trailer 87

Historical Data = (HD); Industry Standard = (IS); Composite of HD & IS = (Comp); Professional Judgement = (PJ)

Activity/Materials/ODC's	Sub-Activity	Calc Type	Calculations
Relocation of Trailer 86 and Trailer 87 **General Materials:** $ 594/FTE **Additional Materials** needed to remove and reinstall T-86 & T-87 1)80 – ABS Pads 2) 240 – concrete Blocks 3) 80 – Auger Anchor Straps 4) skirting 5) 1 Transformer, Rainshield Disconnects 6) 200 foot Fiber/Copper cable 7) 4 – Aluminum strips for floor and roof **Additional Material** Cost - $7,200 **Subcontractors** *Wise - see Table 1.5.1 William Scottsman $2,800 Three Phase $3,200 **ODCs** *ODC 600* - None *ODC 700* - None *ODC Travel* -- None Overtime – Overtime at 1.5x for Rad Tech 2.55%, Safety Engineer 2.21% and IH Tech 100% for Fluor Fernald Support only	Mobilize job boxes and materials		**Subcontractors** .1 Operator .45 Laborer .38 Carpenter .38 Electrician .02 Safety **Fluor Fernald FTE's** .03 Rad Techs .01 IH Techs
	Dismantle sprinkler piping and components to accommodate disassembly of trailers		**Subcontractors** .45 Laborer .02 Safety **Fluor Fernald FTE's** .03 Rad Techs .01 IH Techs
	Remove skirting, piers and anchors		**Subcontractors** .38 Carpenter .02 Safety **Fluor Fernald FTE's** .03 Rad Techs .01 IH TECHS
	Install trailer tongues and wheels if required		**Subcontractors** .45 Laborer .02 Safety **Fluor Fernald FTE's** .03 Rad Techs .01 IH TECHS
	Remove flashing at centerline		**Subcontractors** .38 Carpenter .02 Safety **Fluor Fernald FTE's** .03 Rad Techs .01 IH Techs
	Separate trailer sections at centerline and prepare trailers for moving		**Subcontractors** .45 Laborers .38 Carpenters .02 Safety **Fluor Fernald FTE's** .03 Rad Techs .01 IH Techs
	Establish traffic control for movement of trailer sections		**Subcontractors** .45 Laborers .38 Carpenters .02 Safety **Fluor Fernald FTE's** .03 Rad Techs .01 IH Techs

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Table 1.5.2)2 - Quantification Table
Relocation of Trailer 86 and Trailer 87
Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity/Materials/ODC's	Sub-Activity	Calc Type	Calculations
(Continued)	Relocate trailer sections		**Subcontractors** .1 Operators .38 Carpenters .45 Laborers .02 Safety **Fluor Fernald FTE's** .03 Rad Techs .01 IH Techs
	Demobilization		

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~~HD - Historical Data~~
~~IS - Industry Standard~~
~~Comp - Composite of HD and IS~~
~~PJ - Professional Judgement~~

1.5.3 Relocation of Trailer 84

1.5.3)1 Plan/Scope

- Labor Hour Support/Craft type required:
  - Two (2) Carpenters
  - Two (2) Electricians
  - Two (2) Laborers
  - One(1) Teamster
  - One (1)Operator
  - One (1) Supervisor
  - One(1) Safety

- Mobilize job boxes and materials
- Dismantle sprinkler piping and components to accommodate disassembly of trailer
- Remove skirting, piers and anchors
- Install trailer tongues and wheels if required
- Remove flashing at centerline
- Separate trailer sections at centerline and prepare trailer for moving
- Establish traffic control for movement of trailer sections
- Relocate trailer sections
- Mobilize tools, equipment and materials to new location
- Block, level, join, and anchor trailer sections
- Install sealant and flashing to provide weather tight installation
- Tie-in electrical feed from predetermined location
- Install electrical disconnect and transformer
- Tie-in Honeywell panel from predetermined location
- Install new telephone cable

- Test electrical and Honeywell

- Demobilization

- The scope of work for this charge number will require support for planning activities from the following organizations/resources which are budgeted in another cost account:

  - Engineering for Title 1 and II
  - Project Engineer
  - CCM
  - CE
  - Maintenance
  - Acquisitions
  - IH Engineer
  - RAD Engineer

- The scope of work for this charge number will require support for field and close out activities from the following organizations/resources which are budgeted in another cost account:

  - CCM
  - CE
  - Rad Engineer
  - Maintenance
  - WAO
  - Waste Generator Services

- The scope of work for this charge number will require support from the following organizations/resources which are included in this cost account:

  - GBCT&C direct craft
  - Williams Scottsman subcontractors
  - Safety Representative
  - Radiological Technicians
  - IH Technicians

TABLE 1.5.3)2 - Quantification Table
Relocation of Trailer 84
Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity/Materials/ODC	Sub-Activity	Calc Type	Calculations
Relocation of Trailer 84 **General Materials** - $594/FTE **Additional Materials** 1)40 – ABS Pads 2)120 – concrete Blocks 3)40 – Auger Anchor Straps 4)skirting 5)1 Transformer, Rainshield Disconnects 6)100 foot Fiber/Copper cable 7)2 – Aluminum strips for floor and roof **Additional Material** Cost - $3,600 **Subcontractors:** *Wise - see Table 1.5.1 William Scottsman - $1,400 Phase Three - $3,200 **ODC's** *ODC 600* - None *ODC 700* – None *ODC Travel* – None R1-D-048 Overtime = Overtime at 1.5x for Rad Tech 2.55%, Safety Engineer 2.21% and IH Tech 100% for Fluor Fernald Support only	Dismantle sprinkler piping and components to accommodate disassembly of trailers	HD	**Subcontract** .1 Operator .45 Laborer .38 Carpenter .38 Electrician .02 Safety **Fluor Fernald FTE** .03 Rad Techs .01 IH Techs
	Mobilize job boxes and materials r	HD	**Subcontract** .45 Laborer .02 Safety **Fluor Fernald FTE** .03 Rad Techs .01 IH Techs
	Remove skirting, piers and anchors	HD	**Subcontractors** .38 Carpenter .02 Safety **Fluor Fernald FTE** .03 Rad Techs .01 IH Techs
	Install trailer tongues and wheels if required	HD	**Subcontractors** .45 Laborer .02 Safety **Fluor Fernald FTEs** .03 Rad Techs .01 IH Techs
	Remove flashing at centerline	HD	**Subcontractors** .38 Carpenter .02 Safety **Fluor Fernald** .03 Rad Techs .01 IH Techs
	Separate trailer sections at centerline and prepare trailer for moving	HD	**Subcontractors** .45 Laborers .38 Carpenters .02 Safety **Fluor Fernald FTEs** .03 Rad Techs .01 IH Techs
	Establish traffic control for movement of trailer sections	HD	.45 Laborers .38 Carpenters .02 Safety .03 Rad Techs .01 IH Techs

TABLE 1.5.3)2 - Quantification Table
Relocation of Trailer 84
Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity/Materials/ODC	Sub-Activity	Calc Type	Calculations
(Continued)	Relocate trailer sections	HD	.1 Operators .38 Carpenters .45 Laborers .02 Safety .03 Rad Techs .01 IH Techs
	Mobilize tools, equipment and materials to new location	HD	.45 Laborers .38 Carpenters .38 Electrician .02 Safety .03 Rad Techs .01 IH Techs
	Block, level, join, and anchor trailer sections	HD	.45 Laborers .38 Carpenters .02 Safety .03 Rad Techs .01 IH Techs
	Install sealant and flashing to provide weather tight installation	HD	.38 Carpenters .02 Safety .03 Rad Techs .01 IH Techs
	Tie-in electrical feed from predetermined location	HD	.38 Electricians .02 Safety .03 Rad Techs .01 IH Techs
	Install electrical disconnect and transformer	HD	.1 Teamster .38 Electrician .02 Safety .03 Rad Techs .01 IH Techs
	Tie-in Honeywell panel from predetermined location	HD	.38 Electrician .02 Safety .03 Rad Techs .01 IH Techs
	Install new telephone cable	HD	.1 Teamster .38 Electrician .02 Safety .03 Rad Techs .01 IH Techs

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TABLE 1.5.3)2 - Quantification Table
Relocation of Trailer 84
Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity/Materials/ODC	Sub-Activity	Calc Type	Calculations
(Continued)	Test electrical and Honeywell	HD	.38 Electrician .02 Safety .03 Rad Techs .01 IH Techs
	Demobilization	HD	.1 Operator .45 Laborer .38 Carpenter .38 Electrician .02 Safety .03 Rad Techs .01 IH Techs

1.5.4 Construction of Pre-Engineered Building for Equipment Disposition Function and Renovation of T-33

1.5.4)1 Plan/Scope

- Provide compacted gravel pad for ten Sealand Containers adjacent to the north side covered off-loading facility

- Purchase and erect a 6000 sq. ft. pre-engineered metal building on the existing 60'x100' concrete RIMIA Pad for Property Disposition. The installation will include: insulation, minimum electric radiant heat, lighting and sitewide communication/fire alarm system. There will be two (2) mandoors and two (2) manually operated overhead doors

- Building Code requires an eight (8) inch height clearance from existing grade to the bottom edge of the building. To comply with this requirement, a concrete curb (8"x8") will be installed around the entire slab perimeter. The structural steel base plate and columns will be anchored to the curb with anchor bolts

- Upgrades to T-33 include: electrical upgrade, coating trailer roof, purchase and install two (2) awnings, install two (2) entry ramps, remove bathroom fixtures and repair holes due to removal, install fire rated phone board, repair entrance doors, provide telecommunication terminations new phone board, and caulk siding and windows

- The scope of work for this charge number will require support for planning activities from the following organizations/resources which are budgeted in another cost account:

  - Engineering for Title 1 and II
  - Project Engineer

- CCM
- CE
- Maintenance
- Acquisitions
- IH Engineer
- RAD Engineer

- The scope of work for this charge number will require support for field and close out activities from the following organizations/resources which are budgeted in another cost account:

  - CCM
  - CE
  - Rad Engineer
  - Maintenance
  - WAO
  - Waste Generator Services

- The scope of work for this charge number will require support from the following organizations/resources which are included in this cost account:

  - GCBT&C direct craft
  - Safety Representative
  - Radiological Technicians
  - IH Technicians

Table 1.5.4)2 – Quantification Table
Construction of Pre-Engineered Building for
Equipment Disposition Function and Renovation of T-33
Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity/Materials/ODC	Sub-Activity	Calc Table	Calculations
Construction of Pre-engineered Building for Equipment Disposition Function of T-33 **General Materials** - $594/FTE **Additional Materials** 1)115 Ton – 304 Crushed Limestone **Additional Materials** Cost - %31,200 Subcontractor: *Wise See Table 1.5.1 **ODC's** *ODC 600* - None *ODC 700* - None *ODC Travel* -- None Overtime – Overtime at 1.5x for Rad Tech 2.55%, Safety Engineer 2.21% and IH Tech 100% for Fluor Fernald Support only	Purchase and erect a 6000 sq. ft. pre-engineered metal building on the Existing 60'x100' concrete RIMIA Pad for Proper Disposition. The installation will include: insulatio minimum electric Rad Techs heat, lighting and sitewide communication/fire alarm system. There will be two (2) mandoors and two (2) manually operated overhead doors	HD	**Subcontractor** .21 Welder .21 Operators .32 Laborers .12 Electricians .03 Safety **Fluor Fernald FTE's** .03 Rad Techs
	Building Code requires an eight (8) inch height clearance from existing grade to the bottom edge of the building. To comply with this requirement, a concrete curb (8"x8") will be installed around the entire slab perimeter. The structural steel base plate And columns will be anchored to The curb with anchor bolts	HD	**Subcontractors** .03 Carpenters .03 Iron Worker .05 Laborers .03 Safety **Fluor Fernald FTE's** .03 Rad Techs .03 IH Techs
	Upgrades to T-33 include: electrical upgrade, coa trailer roof, purchase and install two (2) awnings, install two (2) entry ramps, remove bathroom fixt and repair holes due to removal, install fire rated phone board, repair entrance doors, provide telecommunication terminations new phone board, and caulk siding and windows	HD	**Subcontractors** .02 Pipefitters .03 Carpenters .03 Laborers .02 Electricians .03 Safety **Fluor Fernald FTE's** .03 Rad Techs .03 IH Techs

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~~HD – Historical Data~~
~~IS – Industry Standard~~
~~Comp – Composite of HD and IS~~
~~PJ – Professional Judgement~~

SECTION 4

2.0 MANPOWER PLANS

Manpower Planning Sheet (CR2)

MPS # 1AD03 MISC RELOCATION PROJECTS

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
205 LAB/PILOT PLANT D&D	10/01/2003	09/29/2006					xxx xxx xxx xxx	xxx xxx xxx xxx	xxx xxx xxx xxx
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
212 OFFICE TRAILER D&D	10/03/2005	04/03/2007							xxx xxx xxx xxx
215 MULTICOMPLEX D&D	10/01/2001	07/01/2004			xxx xxx xxx xxx	xxx xxx xxx 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	

Area 3A-T84	Environmental Safety & H	Rad Tech	0.50	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
	Environmental Safety & H	Industrial Hygienist Tech.	0.10	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0
	Environmental Safety & H	Safety Engineer	0.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0	0	0	0	0	0	0	0	0	0	0	0
	Subcontract	Subcontract Craft	3.00	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0
Area 3A-T86/87	Environmental Safety & H	Safety Engineer	0.30	0	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Environmental Safety & H	Industrial Hygienist Tech.	0.10	0	0.1	0	0	0	0	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	1.00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Subcontract	Subcontract Craft	5.20	0	5.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
216-Boiler	Environmental Safety & H	Rad Tech	0.20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1	0	0	0	0	0	0	0	0	0	0
	Environmental Safety & H	Industrial Hygienist Tech.	0.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	0	0	0	0	0	0	0	0	0	0
	Environmental Safety & H	Safety Engineer	0.70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5	0	0	0	0	0	0	0	0	0	0
	Subcontract	Subcontract Craft	9.80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.5	7.3	0	0	0	0	0	0	0	0	0	0
RIMIA Reloc	Environmental Safety & H	Safety Engineer	0.60	0	0.3	0.3	0	0	0	0	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	0.20	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	0	0	0	0
	Environmental Safety & H	Industrial Hygienist Tech.	0.20	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	0	0	0	0
	Subcontract	Subcontract Craft	7.00	0	4	3	0	0	0	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 # 1AD03 MISC RELOCATION PROJECTS

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
205 LAB/PILOT PLANT D&D	10/01/2003	09/29/2006																				
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																				
212 OFFICE TRAILER D&D	10/03/2005	04/03/2007	xxx	xxx	x																	
215 MULTICOMPLEX D&D	10/01/2001	07/01/2004																				
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																				
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	Industrial Hygienist 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
Subcontract	Subcontract Craft		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	Industrial Hygienist 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 Tech		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subcontract	Subcontract Craft		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	Industrial Hygienist 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
Subcontract	Subcontract Craft		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	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	Industrial Hygienist Tech.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subcontract	Subcontract Craft		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 # 1AD03 MISC RELOCATION PROJECTS

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
Sheet Totals:			29.50	0.00	11.10	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.90	2.90	8.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Manpower Planning Sheet (CR2)

MPS # 1AD03 **MISC RELOCATION PROJECTS**

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
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

3.0 ESTIMATE

APRJ4

MISC RELOCATION PROJECTS

09/07/2001
12:23 PM

PBS: 01
WBS: 1.1.A.D
CTRL ACCT: APRJ
CHARGE NO: APRJ4
COMMENT NO: E700 & F01-004

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
**** STATED IN FY01 DOLLARS ****
(1 FTE EQUALS 1747 HOURS)

DATE: 13 MAY 2001
PROJECT MGR: R. NICHOLS
CAM: R. NICHOLS
PREPARED BY: L. HAMPSHIRE
ALL FISCAL YEARS

Resource: INDHYG **INDUSTRIAL HYGIENIST** **EOC:** LABOR
Res Dept: **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:	48.1	0.0	0.0	150.8	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	48.1	48.1	48.1	198.9	198.9	198.9	198.9	198.9	198.9	198.9
Yr Total Cost:	1,888	0	0	6,822	0	0	0	0	0	0
Cum Total Cost:	1,888	1,888	1,888	8,710	8,710	8,710	8,710	8,710	8,710	8,710

Resource: MAT300 **MATERIAL OBJCLASS300** **EOC:** MATERIAL
Res Dept: **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:	88,426.0	0.0	0.0	82,820.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Units:	88,426.0	88,426.0	88,426.0	171,246.0	171,246.0	171,246.0	171,246.0	171,246.0	171,246.0	171,246.0
Yr Total Cost:	88,426	0	0	89,799	0	0	0	0	0	0
Cum Total Cost:	88,426	88,426	88,426	178,225	178,225	178,225	178,225	178,225	178,225	178,225

Resource: RADTEC **RAD TECH** **EOC:** LABOR
Res Dept: **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:	360.1	0.0	0.0	289.1	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	360.1	360.1	360.1	649.2	649.2	649.2	649.2	649.2	649.2	649.2
Yr Total Cost:	12,562	0	0	11,732	0	0	0	0	0	0
Cum Total Cost:	12,562	12,562	12,562	24,294	24,294	24,294	24,294	24,294	24,294	24,294

Resource: S&HENG **SAFETY ENGINEER** **EOC:** LABOR
Res Dept: **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:	229.0	0.0	0.0	381.3	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	229.0	229.0	229.0	610.3	610.3	610.3	610.3	610.3	610.3	610.3
Yr Total Cost:	11,558	0	0	22,378	0	0	0	0	0	0
Cum Total Cost:	11,558	11,558	11,558	33,935	33,935	33,935	33,935	33,935	33,935	33,935

INCLUDES ESCALATION COSTS

09/07/2001
12:23 PM

Resource: S&HTEC **SAFETY TECH** **EOC:** LABOR
Res Dept: **Overtime:** 1.5 **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	0.0	0.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	0.0	0.0	0.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Yr Total Cost:	0	0	0	614	0	0	0	0	0	0
Cum Total Cost:	0	0	0	614	614	614	614	614	614	614

Resource: SERVSUB **SUBS** **EOC:** SUBCONTRACTORS
Res Dept: 950 **Overtime:** P386 **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:	33,500.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Units:	33,500.0	33,500.0	33,500.0	33,500.0	33,500.0	33,500.0	33,500.0	33,500.0	33,500.0	33,500.0
Yr Total Cost:	33,500	0	0	0	0	0	0	0	0	0
Cum Total Cost:	33,500	33,500	33,500	33,500	33,500	33,500	33,500	33,500	33,500	33,500

Resource: WISE **WISE CONSTRUCTION** **EOC:** SUBCONTRACTORS
Res Dept: 950 **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:	190,001.0	0.0	0.0	175,889.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Units:	190,001.0	190,001.0	190,001.0	365,890.0	365,890.0	365,890.0	365,890.0	365,890.0	365,890.0	365,890.0
Yr Total Cost:	190,001	0	0	190,710	0	0	0	0	0	0
Cum Total Cost:	190,001	190,001	190,001	380,711	380,711	380,711	380,711	380,711	380,711	380,711

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:	667.1	0.0	0.0	833.2	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	667.1	667.1	667.1	1,500.3	1,500.3	1,500.3	1,500.3	1,500.3	1,500.3	1,500.3
Yr Total Cost:	339,323	0	0	322,054	0	0	0	0	0	0
Cum Total Cost:	339,323	339,323	339,323	661,377	661,377	661,377	661,377	661,377	661,377	661,377

CAM _____ CONTROL TEAM _____

INCLUDES ESCALATION COSTS

FLUOR GLOBAL SERVICES

Memorandum

To:	Lyle Hampshire	Date:	May 14, 2001
Location:	Fernald MS44-0	Reference:	N/A
From:	Ken Kepler	Fernald #:	C:OOTP(PC/EST):2001-0064
Location:	Fernald MS80-3	Client:	DOE DE-AC24-01OH20115
Extension:	648-6761	Subject:	MISC. RELOCATION PROJECTS

c: File Record Subject Estimate – IH-2001-05-003

Attached are two (2) copies of the estimate for the MISC. RELOCATION PROJECTS. To request any additional copies of this estimate or for any questions, please contact Ed Lumbert on extension 6318.

KGK:EL:hmp
Attachment

ESTIMATE REVIEW FORM

PROJECT: Misc Relocation Projects
ESTIMATE N IH-2001-05-003
CLIENT: DOE
WBS NO.: 1.1.A.D

DATE: 13-May-01
ESTIMATO Ed Lumbert
LOCATION FERNALD
TASK NO.: APRJ4

OTHER REVIEWS: _____

REQUESTER _____ DATE _____

CAM if > $100,000 _____ DATE _____

PROJ.MGR. if >$ 1M _____ DATE 5/14/01

ESTIMATING SERVICES
TEAM COACH _____ DATE 5/14/01

ESTIMATE REVIEW FORM

PROJECT: Misc Relocation Projects
DATE: 13-May-01
ESTIMATE NIH-2001-05-003
ESTIMATO Ed Lumbert
CLIENT: DOE
LOCATION FERNALD
WBS NO.: 1.1.A.D
TASK NO.: APRJ4

COMPLETE ESTIMATE PACKAGE YES _____ NO _____

REQUIRED DOCUMENTS _____

COMMENTS: _____

REVIEWERS SIGNATURE _____ DATE _____

RESOLUTION: _____

ESTIMATOR: _____ DATE _____

REVIEWER: _____ DATE _____

Fluor Fernald, Inc.

PROJECTS CONTROLS
ESTIMATING SERVICES

May 13, 2001

PROJECT DESCRIPTION: Misc Relocation Projects
WBS NUMBER: 1.1.A.D
PROJECT ENGINEER: Tom Jesse
ESTIMATOR: Ed Lumbert
ESTIMATE NUMBER: C3-2001-05-003

BASIS OF ESTIMATE

SUPPORTING DOCUMENTATION:

Verbal Scope	☐	P & ID's	☐	Work Plan	☐
Drawings	☐	Equipment List	☐	Site Walk	☐
Sketches	☐	Specifications	☐	Eng. Mtg.	☐
Flow Diagrams	☐	Written Scope	☒	Estimate	☐

TYPE OF ESTIMATE:

Change Proposal	☐	Government	☐
Plan/Feasibility	☐	Conceptual	☐
Construction	☐	Title I Design	☐
Budget	☒	Independent	☐

BASIS OF ESTIMATE:

Prepare a control estimate to determine the cost of Misc Relocation Projects. Estimate to include manhours, labor, material, equipment, and subcontract costs for the following structures:

93A – Southwest Boilerhouse
Trailer T-86 and T-87
Trailer T-84
Equipment Disposition and T-33
Pre-Engineered Building (APRJ1)

Fluor Fernald, Inc.

PROJECTS CONTROLS
ESTIMATING SERVICES

May 13, 2001

PROJECT DESCRIPTION: Misc Relocation Projects
WBS NUMBER: 1.1.A.D
PROJECT ENGINEER: Tom Jesse
ESTIMATOR: Ed Lumbert
ESTIMATE NUMBER: C3-2001-05-003

ESTIMATE ASSUMPTIONS

EXECUTION:

☒ This project is to be performed on a 40-hour week, 10 hours a day.
☐ This project is to be performed on a 40-hour week, 8 hours a day.
☐ Premium time allowed.

WAGE RATES:

☐ Wage rates within this estimate are based on Project Labor Agreement rates, effective October 2000 and are considered FY01 dollars for estimating.
☒ Wage rates within this estimate are based on FF Support Contractor FSC 599 wage rates, effective October 1999 have been escalated 3% and are considered FY01 dollars for estimating.
☐ Wage rates within this estimate are based on FF FTE Planning Labor Rates FY01.

ENGINEERING:

☒ N/A
☐ Engineering dollars provided by the Project Engineer.
☐ Engineering dollars have been factored in at the standard 12% of the total direct and indirect field costs as per request of Project Engineer.

CONSTRUCTION MANAGEMENT:

☒ N/A
☐ Construction Management dollars provided by the Project Engineer.
☐ Construction Management dollars have been factored in at the standard 30% of the total direct and indirect field costs as per request of Project Engineer.

PROJECT MANAGEMENT:

☒ N/A
☐ Project Management dollars provided by the Project Engineer.
☐ Project Management dollars have been factored in at the standard 30% of the total direct and indirect field costs as per request of Project Engineer.

WASTE PROGRAM MANAGEMENT:

☒ N/A
☐ Waste Program Management dollars provided by the Project Engineer.

Fluor Fernald, Inc.

PROJECTS CONTROLS
ESTIMATING SERVICES

May 13, 2001

PROJECT DESCRIPTION: Misc Relocation Projects
WBS NUMBER: 1.1.A.D
PROJECT ENGINEER: Tom Jesse
ESTIMATOR: Ed Lumbert
ESTIMATE NUMBER: C3-2001-05-003

PRODUCTIVITY:

A productivity factor has been developed and applied to the unit man-hours derived from MEANS, Richardson, NECA, and or any other published estimating source. See attachment APPENDIX "A" and APPENDIX "B".

ESCALATION:

Escalation costs are excluded from the target estimate. The escalation costs are calculated within the Micro-Frame computer system according to the plan for rebaselining.

UNIT RATES:

Unit man-hours, equipment and material dollars are based on Richardson, MEANS, NECA, and or other published rates.

G & A (HO EXPENSE):

G & A are excluded from the target estimate. The G & A cost are calculated within the Micro-Frame computer system according to the plan for rebaselining.

HEALTH PHYSICS:

See attached APPENDIX "C".

RISK BUDGET:

N/A.

CONTINGENCY:

N/A.

Fluor Fernald, Inc.

PROJECTS CONTROLS
ESTIMATING SERVICES

May 13, 2001

PROJECT DESCRIPTION: Misc Relocation Projects
WBS NUMBER: 1.1.A.D
PROJECT ENGINEER: Tom Jesse
ESTIMATOR: Ed Lumbert
ESTIMATE NUMBER: C3-2001-05-003

ESTIMATE INCLUSIONS & EXCLUSIONS

INCLUSIONS:

- Premobilization & Mobilization.
- Demobilization.
- Labor hours.
- Material dollars.
- Equipment dollars.

EXCLUSIONS:

- Premium time.
- Permits and fees.
- FF G & A (Home Office Expense).
- Construction Management.
- Any second tier subcontract costs.
- Project Management dollars.
- Waste Management dollars.

SUPPORT CONTRACTOR ESTIMATE SUMMARY SHEET

PROJECT: Misc Relocation Projects
ESTIMATE NO.: IH-2001-05-003
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 13-May-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO: APRJ4

	DESCRIPTION	M/H	AVG. RATE	SPT.CONT. LABOR $	FERNALD S/C / OTHER	FERNALD MAT'L $	FERNALD EQUIP $	FERNALD TOTAL $
	93A - Southwest Boilerhouse	2,811		$96,200		$48,070		$48,070
	Trailer T-86 and T-87	1,919		$70,900	$33,500	$19,040	$19,910	$72,450
	Trailer T-84	916		$31,710		$10,910	$1,600	$12,510
	Equipment Disposition & T-33	1,904		$67,540		$25,420		$25,420
	Pre-Engineered Building (APRJ1)	9		$340		$31,500		$31,500
SUPPORT CONT. / FF D. F. COST TOTAL		7,559	$35.28	$266,690	$33,500	$134,940	$21,510	$189,950
SUPERVISION		1,436		$72,200				
SMALL TOOLS & CONSUMABLES						$29,300		$29,300
MISC. EQUIP.RENTAL								
JOB CLEAN-UP		340		$12,000		$4,000		$4,000
SAFETY		147		$5,200		$2,800		$2,800
HEALTH PHYSICS S/C		278		$9,800		$100		$100
JOB SPECIFIC TRAINING								
SUPPORT CONT. INDIRECT FIELD COST TOTAL		2,201		$99,200				
SUPPORT CONT. TOTAL BILLABLE COSTS		9,760	$37.49	$365,890				
TEMPORARY FACILITIES								
TEMPORARY UTILITY HOOK-UP								
FD FERNALD SALES TAX						$10,300	$1,300	$11,600
FF INDIRECT FIELD COSTS TOTAL						$46,500	$1,300	$47,800
FF DIRECT & INDIRECT FIELD COSTS TOTAL					$33,500	$181,440	$22,810	$237,750
FF and SUPT.CONT. DIRECT & INDIRECT FIELD COST TOTAL				$365,890	$33,500	$181,440	$22,810	$603,640
SUB-TOTAL (BASE ESTIMATE)								$603,640
TARGET ESTIMATE (FY 01 DOLLARS)								$603,640

ESTIMATE PERFORMED B

SUPPORT CONTRACTOR ESTIMATE SUMMARY SHEET

PROJECT: Misc Relocation Projects — DATE: 13-May-01

ESTIMATE NO.: IH-2001-05-003 — FACTORS — ESTIMATOR: Ed Lumbert

CLIENT: DOE — LOCATION: FERNALD

WBS NO.: 1.1.A.D — TASK NO.: APRJ4

	SUPT.CONT.	FD FERNALI					PROJECT
	LABOR $	LABOR $	S/C $	MAT'L. $	EQUIP. $	PPE $	TOTAL $
DFC DOLLARS	$266,690		$33,500	$134,940	$21,510	$100	$456,740
IFC COST FACTOR	1.3720	1.0000	1	1.2675	1.0000	-	
SALES TAX COST FACTOR	-	-	-	1.0600	1.0600	1.0600	
BOND + OVERHEAD & PROFIT COST FACTOR	N/A	N/A	N/A	N/A	N/A	N/A	
DIRECT FIELD COST FACTOR =	1.3720	1.0000	1.0000	1.3436	1.0600	1.0600	
DIRECT BASE ESTIMATE $'s	$365,890		33500	$181,302	$22,801	$106	$603,599
RISK BUDGET FACTOR	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
DIRECT TARGET ESTIMATE FACTOR	1.3720	1.0000	1	1.3436	1.0600	1.0600	
DIRECT TARGET ESTIMATE (FY00 DOLLARS)	$365,890		33500	$181,302	$22,801	$106	$603,599

NOTE:

1.) If there are no equipment rental costs in the "Directs" (0 $'s in I20) and the default allowance of $3.50 per MH has been used in the "indirects", input the indirect Equip. $'s in H62 and put a dash in H63. This will treat the Equip. $'s as direct cost and apply the sales tax factor. On page 3 below, insert the equipment $'s in any pay items that apply.

SUPPORT CONTRACTOR ESTIMATE SUMMARY SHEET

PROJECT: Misc Relocation Projects
DATE: 13-May-01
ESTIMATE NO.: IH-2001-05-003
ESTIMATOR: Ed Lumbert
CLIENT: DOE
LOCATION: FERNALD
WBS NO.: 1.1.A.D
TASK NO.: APRJ4

Direct Field Cost w/FACTORS

PAY ITEM NO.	DESCRIPTION	SUPPORT CONT. LABOR $	FF LABOR $	S/C $	MAT'L. $	EQUIP. $	PPE $	PROJECT TOTAL $
	PPE						100 $110	$110
	93A - Southwest Boilerhouse	96,200 $131,980			48,070 $64,590			144,270 $196,570
	Trailer T-86 and T-87	70,900 $97,270		33,500 $33,500	19,040 $25,580	19,910 $21,100		143,350 $177,450
	Trailer T-84	31,710 $43,510			10,910 $14,660	1,600 $1,700		44,220 $59,870
	Equipment Disposition & T-33	67,540 $92,660			25,420 $34,150			92,960 $126,810
	Pre-Engineered Building (APRJ1)	340 $470			31,500 $42,320			31,840 $42,790
SUB-TOTAL - SUPPORT CONTRACTOR		$365,890						$365,890
SUB-TOTAL - FF				$33,500	$181,300	$22,800	$110	$237,710
TOTAL DIRECT FIELD COSTS w/FACTORS								$603,600

NOTE: The above costs exclude any FD Fernald support costs that may appear on page 1 & 2, such as Waste Disposition, Engineering, Project Management, or Construction Management.

SUPPORT CONTRACTOR - Stated in FY01 DOLLARS

PROJECT: Misc Relocation Projects
ESTIMATE NO.: IH-2001-05-003
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 13-May-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: APRJ4

	DIRECT COST SUMMARY	QTY	UNIT	MAN-HOURS			COST / UNIT				LABOR	S/C	MAT'L	EQUIP	TOTAL
				Unit	Total	Rate	Labor	S/C	Mat'l	Equip					
	93A - Southwest Boilerhouse				2,811						$96,220		$48,070		$144,290
	Trailer T-86 and T-87				1,919						$70,940	$33,500	$19,040	$19,910	$143,390
	Trailer T-84				916						$31,710		$10,910	$1,600	$44,220
	Equipment Disposition & T-33				1,904						$67,540		$25,420		$92,960
	Pre-Engineered Building (APRJ1)				9						$340		$31,500		$31,840
	DIRECT COST SUMMARY	**1**	**LOT**		**7,559**	**$35.29**					**$266,750**	**$33,500**	**$134,940**	**$21,510**	**$456,700**

PROJECT: Misc Relocation Projects
ESTIMATE NO.: IH-2001-05-003
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 13-May-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: APRJ4

PPE LEVEL	93A - Southwest Boilerhouse	QTY	UNIT	MAN-HOURS Unit	MAN-HOURS Total	MAN-HOURS Rate	COST / UNIT Labor	COST / UNIT S/C	COST / UNIT Mat'l	COST / UNIT Equip	LABOR	S/C	MAT'L	EQUIP	TOTAL
	New furnace/blowers to provide gas heat within 93A-Southwest Boilerhouse.														
mD	Blower, 50k BTU	4	ea	3.2	18	$40.58			1,025		$731		$4,100		$4,831
mD	Ductwork, 8" dia	250	lf	0.080	28	$40.58			1.69		$1,143		$423		$1,566
mD	Strip Lighting	10	ea	1.290	18	$38.12			47.50		$692		$475		$1,167
mD	Elect. Receptacles, GFI, 20 amp	6	ea	0.269	2	$38.12			30.50		$87		$183		$270
mD	1/C #12 THHN Wire	500	lf	0.024	17	$38.12			0.98		$649		$490		$1,139
mD	Transformer, 13.2 kv	1	ea	29.0	41	$38.12			7,100.00		$1,556		$7,100		$8,656
mD	480v Overhead Cable	100	lf	0.080	11	$38.12			20.75		$429		$2,075		$2,504
mD	Disconnect Switch 480v 3ph	1	ea	8.000	11	$38.12			250.00		$429		$250		$679
mD	Service Entrance Cap, 1 1/2" dia	1	ea	1.200	2	$38.12			11.25		$64		$11		$75
mD	Conduit, 1 1/2" dia, RGS	50	lf	0.100	7	$38.12			1.70		$268		$85		$353
mD	Conduit fittings, 1 1/2" dia	1	ls	8.000	11	$38.12			100.00		$429		$100		$529
mD	#1/0 AL Power cable	1	clf	2.000	3	$38.12			42.62		$107		$43		$150
mD	Ground Wire, Copper	100	lf	0.050	7	$38.12			0.44		$268		$44		$312
mD	Allowance for Hardware	320	hr	1.000	451	$38.12			20.00		$17,174		$6,400		$23,574
mD	Electrical Tie-In	160	hr	1.000	225	$38.12					$8,587				$8,587
mD	Lock and Tag	60	hr	1.000	84	$38.12					$3,220				$3,220
mD	Insulation	1	ls	160.0	225	$33.93			7,500.00		$7,644		$7,500		$15,144
mD	Paving, Base, Binder Course, Topp	10,000	sf	0.005	70	$33.93			1.13		$2,389		$11,300		$13,689
mD	Overhead Door, 12' x 12'	4	ea	10.667	60	$36.72			625.00		$2,206		$2,500		$4,706
mD	Electric Operator	4	ea	8.000	45	$38.12			440.00		$1,717		$1,760		$3,477
mD	Piping, Gas Distribution, 1" dia.	100	lf	0.107	15	$41.55			2.32		$626		$232		$858
mD	Concrete Footing Removal	1	ls	80.0	113	$36.72									
mD	Revise West Wall	1	ls	160.0	225	$36.72			2,500.00		$8,272		$2,500		$10,772
mD	Premobilization	1	ls	160.0	160	$30.18					$4,829				$4,829
mD	Other misc. requirements as requi	1	ls	320.0	320	$33.93			500.00		$10,900		$500		$11,400
mD	Complete Punch List items.	1	ls	320.0	320	$33.93					$10,900				$10,900
mD	Other area requirements.	1	ls	320.0	320	$33.93					$10,900				$10,900
	93A - Southwest Boilerhouse				**2,811**	$34.23					**$96,220**		**$48,070**		**$144,290**

SUPPORT CONTRACTOR - Stated in FY01 DOLLARS

PROJECT: Misc Relocation Projects
ESTIMATE NO.: IH-2001-05-003
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 13-May-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: APRJ4

PPE LEVEL	Trailer T-86 and T-87 pt 1/2	QTY	UNIT	MAN-HOURS			COST / UNIT				LABOR	S/C	MAT'L	EQUIP	TOTAL
				Unit	Total	Rate	Labor	S/C	Mat'l	Equip					
	Relocate T-86 and T-87 from process area to location in Area 7.														
mD	Disconnect Utilities	68	hr	1.0	96	$38.09			0.50		$3,647		$34		$3,681
mD	Clean for Release to new location	46	hr	1.000	82	$36.69			0.50		$3,009		$23		$3,032
mD	Remove skirting, secure doors	98	hr	1.000	138	$36.69			1.00		$5,063		$98		$5,161
mD	Move to new location	66	hr	1.000	92	$36.69		25.00			$3,375	$1,650			$5,025
mD	Site develop & stone area	66	hr	1.000	92	$36.69			8		$3,375		$528		$3,903
mD	Receive and spot trailer	52	hr	1.000	74	$36.69					$2,715				$2,715
mD	Set anchors, level trailers	98	hr	1.000	138	$36.69			10.00		$5,063		$980		$6,043
mD	Install skirting	68	hr	1.000	96	$36.69			3.00		$3,522		$204		$3,726
mD	Modify interior	49	hr	1.000	96	$36.69			5.00		$3,522		$245		$3,767
mD	Install Stairs, Porch	18	hr	1.000	25	$36.69			7.50		$930		$135		$1,065
mD	Reconnect electric, phone & LAN	210	hr	1.000	296	$36.69		30.00	32.00		$10,848	$6,300	$6,720		$23,868
mD	Tie in work, OT Required	23	hr	1.000	32	$36.69		40.00			$1,188	$920			$2,108
mD	Trailer relocation during Fri & Sat C	33	hr	1.000	46	$36.69					$1,705				$1,705
mD	Remove Wire	225	lf	0.009	3	$33.33					$95				$95
mD	Install new copper wire 6pr	434	lf	0.013	8	$38.09			0.36		$303		$156		$459
mD	Refeed cable	23	hr	1.000	32	$38.09					$1,234				$1,234
mD	Install new copper wire 50pr	281	lf	0.017	7	$38.09			0.69		$256		$193		$449
mD	Install new copper wire 300pr	844	lf	0.017	20	$38.09			3.43		$769		$2,891		$3,660
mD	Fiber optic cable	1,067	lf	0.010	15	$38.09			0.66		$572		$704		$1,276
mD	FO Connector	18	ea			$38.09		46.48				$837			$837
mD	Termination 50pr	100	ea			$38.12		1.99				$199			$199
mD	Pole Hardware	11	hr	1.000	15	$36.69			15.00		$568		$165		$733
mD	Ariel Splice Connections	1	ea			$38.12		######				$2,500			$2,500
mD	Telephone Jack	34	ea			$30.18		250.00				$8,500			$8,500
mD	Lightning Protection	350	ea			$33.93		10.85				$3,798			$3,798
mD	FO Cabinets	2	ea			$33.93		289.23				$578			$578
mD	Anchor & Guy Wire	1	ea	12.5	18	$38.09			350.00		$670		$350		$1,020
mD	Shelf & Carpenter Work	11	hr	1.0	15	$36.69			50.00		$568		$50		$618
mD	Auger/Bucket Truck w/ Operator	240	hr	1.000						80.00				$19,200	$19,200
mD	T-87 Mast for communication 3" C	35	lf	0.200	10	$38.09			6.30		$375		$221		$596
mD	T-87 Mast Accessories	9	hr	1.0	13	$38.09			15		$483		$135		$618
mD	Boards & Cabinets	1	ls					750.00				$750			$750
mD	Supporting Stand for Cable	80	hr	1.000	113	$38.09			2.50		$4,290		$200		$4,490
mD	Cable 350 kcmil 15kv	241	lf	0.100	34	$38.09			2.12		$1,293		$511		$1,804
mD	Conduit 2" dia	70	lf	0.100	10	$38.09			2.12		$375		$148		$523
mD	Terminations	12	ea	0.600	10	$38.09			16.15		$386		$194		$580
mD	Weatherheads, Cabinets, etc	1	ls	33.800	48	$38.09			150.00		$1,813		$150		$1,963
mD	Honeywell	1	ls			$38.09		######				$2,000			$2,000
mD	LAN Connection equipment	1	ls			$38.09		######				$2,500			$2,500
	Trailer T-86 and T-87 pt 1/2														

PROJECT: Misc Relocation Projects
ESTIMATE NO.: IH-2001-05-003
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 13-May-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: APRJ4

PPE LEVEL	Trailer T-86 and T-87 pt 2/2	QTY	UNIT	MAN-HOURS Unit	MAN-HOURS Total	MAN-HOURS Rate	COST / UNIT Labor	COST / UNIT S/C	COST / UNIT Mat'l	COST / UNIT Equip	LABOR	S/C	MAT'L	EQUIP	TOTAL
mD	Install 480v 4/O cable	220	lf	0.052	16	$38.09			5.65		$614		$1,243		$1,857
mD	Conduit 3" dia	45	lf	0.150	10	$38.09			6.30		$362		$284		$646
mD	Weatherhead, etc	1	ls	7.000	10	$38.09			120.00		$375		$120		$495
mD	Switch	1	ea	3.000	4	$38.09			860.00		$161		$860		$1,021
mD	Terminations	8	ea	0.700	8	$38.09			5.65		$300		$45		$345
mD	Additional Pole	1	ea	8.300	12	$38.09			850.00		$445		$850		$1,295
mD	Pole Hardware	9	hr	1.000	13	$38.09			150.00		$483		$150		$633
mD	Auger/Bucket Truck w/ Operator	8	hr	1.000						80.00				$640	$640
mD	Rework, Switching, etc	28	hr	1.010	40	$38.09			125.00		$1,517		$125		$1,642
mD	Demo Power	28	hr	1.010	40	$38.09					$1,517				$1,517
mD	Mobilization	33	hr	1.000	46	$33.90		60.00	5.00	2.00	$1,575	$1,980	$165	$66	$3,786
mD	Demobilization	33	hr	1.000	46	$33.90		30.00	5.00		$1,575	$990	$165		$2,730
mD															
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	Trailer T-86 and T-87 pt 2/2	1	LOT		1,919	$36.98					$70,940	$33,500	$19,040	$19,910	$143,390

PROJECT: Misc Relocation Projects
ESTIMATE NO.: IH-2001-05-003
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 13-May-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: APRJ4

PPE LEVEL	Trailer T-84	QTY	UNIT	MAN-HOURS Unit	MAN-HOURS Total	MAN-HOURS Rate	COST / UNIT Labor	COST / UNIT S/C	COST / UNIT Mat'l	COST / UNIT Equip	LABOR	S/C	MAT'L	EQUIP	TOTAL
	Relocate T-84 from process area to location in Area 7.														
mD	Area Prep, Mobilize	11	hr	1.0	11	$33.93					$373				$373
mD	Dismantle Sprikler Pipe	40	hr	1.000	56	$33.34					$1,878				$1,878
mD	Remove Skirting, Piers, & Anchors	120	hr	1.000	169	$33.93					$5,733				$5,733
mD	Refit Trailer for Towing	40	hr	1.000	56	$33.93					$1,911				$1,911
mD	Prep Double Wide for Moving	40	hr	1.000	56	$33.93					$1,911				$1,911
mD	Traffic Control	40	hr	1.000	56	$33.93					$1,911				$1,911
D	Locate Trailer, Block, Level, & Join	98	hr	1.000	112	$33.93					$3,804				$3,804
D	Make Trailer Weather Tight	33	hr	1.000	38	$33.93					$1,281				$1,281
D	Transformer, 13.2 kv	1	ea	29.0	33	$38.12			7,100.00		$1,265		$7,100		$8,365
D	480v Overhead Cable	100	lf	0.080	9	$38.12			20.75		$349		$2,075		$2,424
D	Disconnect Switch 480v 3ph	1	ea	8.000	9	$38.12			250.00		$349		$250		$599
D	Service Entrance Cap, 1 1/2" dia	1	ea	1.200	1	$38.12			11.25		$52		$11		$63
D	Conduit, 1 1/2" dia, RGS	50	lf	0.100	6	$38.12			1.70		$218		$85		$303
D	Conduit fittings, 1 1/2" dia	1	ls	8.000	9	$38.12			100.00		$349		$100		$449
D	#1/0 AL Power cable	1	clf	2.000	2	$38.12			42.62		$87		$43		$130
D	Ground Wire, Copper	100	lf	0.050	6	$38.12			0.44		$218		$44		$262
D	Allowance for Hardware	20	hr	1.000	23	$38.12			5.00		$872		$100		$972
D	Electrical Tie-In	20	hr	1.000	23	$38.12			5.00		$872		$100		$972
D	Lock and Tag	8	hr	1.000	9	$38.12					$349				$349
D	Auger/Bucket Truck Rental w/Oper	20	hr							80.00				$1,600	$1,600
D	O.H. Comm/Phone Lines	100	lf	0.023	3	$38.12			3.65		$100		$365		$465
D	Telephone Tie-in	8	hr	1.000	9	$38.12			5.00		$349		$40		$389
D	Allowance for Hardware	20	hr	1.000	23	$38.12			5.00		$872		$100		$972
D	Premobilization	1	ls	20.0	20	$30.18					$604				$604
D	Other misc. requirements as requi	1	ls	40.0	40	$33.93			500.00		$1,400		$500		$1,900
D	Complete Punch List items.	1	ls	80.0	80	$33.93					$2,700				$2,700
D	Other area requirements.	1	ls	40.0	40	$33.93					$1,400				$1,400
D	Decomtaminate	1	ls	16.0	16	$33.93					$500				$500
	Trailer T-84	**1**	**LOT**		**916**	**$34.60**					**$31,710**		**$10,910**	**$1,600**	**$44,220**

SUPPORT CONTRACTOR - Stated in FY01 DOLLARS

PROJECT: Misc Relocation Projects
ESTIMATE NO.: IH-2001-05-003
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 13-May-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: APRJ4

PPE LEVEL	Equipment Disposition & T-33	QTY	UNIT	MAN-HOURS Unit	MAN-HOURS Total	MAN-HOURS Rate	COST / UNIT Labor	COST / UNIT S/C	COST / UNIT Mat'l	COST / UNIT Equip	LABOR	S/C	MAT'L	EQUIP	TOTAL
	Install pre-engineered building and														
	T-33 for Property Disposition functi														
mD	Concrete Curb	8	cy	2.942	32	$33.93			75.00		$1,099		$587		$1,686
mD	Crushed Lime Stone	115	ton	2.783	451	$33.93			15.90		$15,290		$1,829		$17,119
mD	Electical Upgrade	1	ls	320.0	451	$38.12			10,000		$17,174		$10,000		$27,174
mD	Roof Coating, T-33	1	ls	160.0	225	$38.12			7,500		$8,587		$7,500		$16,087
mD	Trailer Up-Grade	1	ls	160.0	225	$36.72			5,000		$8,272		$5,000		$13,272
mD	Premobilization	1	ls	120.0	120	$30.18					$3,622				$3,622
mD	Other misc. requirements as requi	1	ls	160.0	160	$33.93			500.00		$5,400		$500		$5,900
mD	Complete Punch List items.	1	ls	160.0	160	$33.93					$5,400				$5,400
mD	Other area requirements.	1	ls	80.0	80	$33.93					$2,700				$2,700
	Equipment Disposition & T-33	**1**	**LOT**		**1,904**	**$35.47**					**$67,540**		**$25,420**		**$92,960**

SUPPORT CONTRACTOR - Stated in FY01 DOLLARS

PROJECT: Misc Relocation Projects
ESTIMATE NO.: IH-2001-05-003
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 13-May-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: APRJ4

PPE LEVEL	Pre-Engineered Building (APRJ1)	QTY	UNIT	MAN-HOURS			COST / UNIT				LABOR	S/C	MAT'L	EQUIP	TOTAL
				Unit	Total	Rate	Labor	S/C	Mat'l	Equip					
	Purchase Pre-Engineered Building														
D	Purchase Pre-Engineered Building	1	ls	8.0	9	$36.72			31,500		$336		$31,500		$31,836
	Pre-Engineered Building (APRJ1	**1**	**LOT**		**9**	**$37.15**					**$340**		**$31,500**		**$31,840**

SUPPORT CONTRACTOR - Stated in FY01 DOLLARS

APPENDIX "A"

PROJECT: Misc Relocation Projects
ESTIMATE NO IH-2001-05-003
CLIENT: DOE
WBS NO.: 1.1.A.D

SITE SPECIFIC

EFFICIENCY / MULTIPLIER ANALYSIS

DATE: 13-May-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: APRJ4

PERCENT OF INFLUENCE ON CHART MANHOURS

	40%	50%	60%	70%	80%	90%	100%	105%	110%	% OF INFLUENCE	WT'D VALUE	PROD. RESULT
CRAFT SKILL (NOTE 1)	POOR			FAIR			STD	V.GOOD	EXCELLENT	100.0%	12.0%	0.12
CRAFT AVAIL.(NOTE 1)		POOR		FAIR			STD			100.0%	8.0%	0.08
CLIMATE (NOTE 2)	SEVERE	ICE/SNOW			RAIN		+40 TO +85			90.0%	20.0%	0.18
PLANT ELEVATION		OVER 10,000FT			5,000' TO 10,000 FT		UNDER 5,000 FT			100.0%	5.0%	0.05
WORK SPACE	<--- MULTIPLE SHIFTS-			200 SF	250 SF	300 SF	350 SF			100.0%	10.0%	0.1
WORK WEEK							4-10s / 5-8s					
50 HOUR WORK WEEK	//// MULTIPLE-SHIFT ////			OVER 7 WEEKS	3 TO 7 WEEKS	UP TO 3 WEEKS				100.0%	15.0%	0.15
60 HOUR WORK WEEK			OVER 7 WEEKS	3 TO 7 WEEKS	UP TO 3 WEEKS							
SHIFTWORK 2ND SHIFT 3RD SHIFT			 3RD SHIFT		 2ND SHIFT		OR ONE SHIFT ONLY			 100.0% 100.0%	 3.0% 5.0%	 0.03 0.05
PROJECT SIZE					400M MH AND UP	300M TO 400M MH	200M TO 300M MH	200M MH OR LESS		105.0%	4.0%	0.042
PLANT TYPE				REVAMP ONLY	REVAMP & NEW	NEW IN EXIST PLT	GRASS ROOTS			80.0%	8.0%	0.064
AREA/UNION INFLUENCE	STRONG		MILD		SOME		NONE			40.0%	10.0%	0.04
											100.0%	90.6%

NOTES.....
1. TURNOVER HAS BEEN CONSIDERED
2. FOR EXTERIOR WORK ONLY

EFFICIENCY (AS A % OFF CHART MANHOURS) 90.6%

MULTIPLIER - (TO BE APPLIED TO CHART M.H.'S TO OBTAIN SITE M.H.'S) 1.10

APPENDIX "B"

EFFICIENCY FACTORS

PROJECT Misc Relocation Projects
ESTIMATE IH-2001-05-003
CLIENT: DOE
WBS NO.: 1.1.A.D

DATE: ########
ESTIMATOR Ed Lumbert
LOCATION FERNALD
TASK NO.: APRJ4

Fluor Fernald, Inc.

EXAMPLE:

STANDARD CHART MANHOURS =	NET	100
EFFICIENCY FACTORS:		
• SITE SPECIFIC (SEE APPENDIX A	10%	10.0
S/T = BASE UNIT MANHOURS		110
OVERTIME PRODUCTIVITY FACTOR	0.00%	0
(SEE DETAIL WORKSHEET BACK-UP)		110
• TASK SPECIFIC (confined space,	0.0%	0
high elevation, congestion, etc.)		110

• PPE SPECIFIC (Based on current data and estimating knowledge)

	PPE LEVEL											
	D		Mod.'D'		Mod. "C"		C		C+		B	
PRODUCTIVITY HOURS	MH's		MULTIPLIER	MH's	MULTIPLIER	MH's	MULTIPLIER	MH's	MULTIPLIER	MH's	MULTIPLIER	MH's
(AS A %) / ADD MH's	4.00%	4	28.00%	31	66.00%	73	74.00%	81	96.00%	106	110.00%	121
LTIPLIER)/TOTAL HRS	1.04	114.4	1.28	140.8	1.66	182.6	1.74	191.4	1.96	215.6	2.10	231
OTAL MULT. * SITE PRO	1.144		1.408		1.826		1.914		2.156		2.156	

NOTE : Use the Default Productivity Factor of 'mC' for working in a contaminated area if the Safety Level cannot be determined.

(SEE FD FERNALD ESTIMATING SERVICES REFERENCE MANUAL IM-6006 8.10)

Total hours worked in a specific PPE level divided by 10 hour working days = (PPE) ManDays to determine material cost of PPE's.
(SEE APPENDIX C - HEALTH PHYSICS)

	11.0	Man Days	14.0	Man Days	18.0	Man Days	19.0	Man Days	22.0	Man Days	23.0	Man Days

THESE EFFICIENCY FACTORS WERE APPLIED INDIVIDUALLY THROUGHOUT THE ESTIMATE AT A TASK SPECIFIC LEVEL, TO OBTAIN A MORE ACCURATE ACCOUNT OF OVERALL EFFICIENCY IMPACT DUE TO PPE REQUIREMENTS IN HANDLING CONTAMINATED AND HAZARDOUS WASTE.

APPENDIX "B"

EFFICIENCY FACTORS

PROJECT Misc Relocation Projects
ESTIMATE IH-2001-05-003
CLIENT: DOE
WBS NO.: 1.1.A.D

DATE: ########
ESTIMATOEd Lumbert
LOCATION FERNALD
TASK NO.: APRJ4

PPE MULTIPLIER DEVELOPEMENT

	D	mD	mC	C	C+	B
CREW SIZE & MAKE-I STANDARD	7	7	7	7	7	7
WORKER-BUDDY	0	0	0	0	0	0
SUPPORT TEAM .	0	0	0	0	0	0
TOTAL CREW	7	7	7	7	7	7
CREW SIZE RATIO	1.00	1.00	1.00	1.00	1.00	1.00
AVAILABLE WORK TIME FACTOR	0.96	0.78	0.70	0.70	0.68	0.68
PPE LABOR PRODUCTIVITY FACTOR	1	1	0.86	0.82	0.75	0.70
NET PRODUCTIVITY RATIO	0.96	0.78	0.602	0.574	0.51	0.476
NET PRODUCTIVITY MULTIPLIER	1.04	1.28	1.66	1.74	1.96	2.10

These factors were based on Tables 6.1 and 6.2, Moderate Work Efforts, 66F to 85F temperature of 'Hazardous Waste Cost Control' by R.A.Selg.
Modifications were made to reflect a 10 hour work day and no buddy system or support team for levels D, mC and C.
The worker-buddy and support team members, if required, may be covered under Construction Mgmt. (Rad Techs).

AVAILABLE WORK TIME FACTOR		D	mD	mC	C	C+	B
TOTAL WORK MINUTI 4 - 10's		600	600	600	600	600	600
ADDITN'L.SITE SAFETY MEETINGS	QUANTITY	1	1	1	1	1	1
	MINUTES	25	25	25	25	25	25
TOTAL		25	25	25	25	25	25
PPE DON & DOFFING	QUANTITY	0	0	3	3	3	3
(ADJUST LEVEL D per WORK PLAN	MINUTES	0	0	15	15	20	20
TOTAL			0	45	45	60	60
WORK BREAKS	QUANTITY	N/A	2	2	2	2	2
(ADJUST LEVEL D per WORK PLAN	MINUTES	N/A	15	15	15	15	15
TOTAL			30	30	30	30	30
MOBILIZATION - ROUND TRIPS	QUANTITY	N/A	4	4	4	4	4
(ADJUST LEVEL D per WORK PLAN	MINUTES	N/A	15	15	15	15	15
TOTAL			60	60	60	60	60
COOLDOWNS PER DAY	QUANTITY	N/A	4	4	4	4	4
** (4 OUT OF 12 MONT 33.33%	MINUTES	N/A	15	15	15	15	15
TOTAL			20	20	20	20	20
AIR TANK REPLACEMENT	QUANTITY	N/A	N/A	N/A	N/A	N/A	N/A
	MINUTES	N/A	N/A	N/A	N/A	N/A	N/A
TOTAL							
AVAILABLE WORK TIME		575	465	420	420	405	405
AVAILABLE WORK TIME FACTOR		0.96	0.78	0.7	0.7	0.68	0.68

NOTE: Adjust 'Work Minutes per Day' basis to: 5 - 8's, or leave as 4 - 10's. Any other circumstances, over-ride the minutes per day.

** Assumption based on work performed in May, June, July & August, pro-rating cost over one year. Adjust % to individual circumstances.

APPENDIX "C"

HEALTH PHYSICS

PROJECT: Misc Relocation Projects
ESTIMATE NO IH-2001-05-003
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 13-May-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: APRJ4

PPE's - PERSONAL PROTECTIVE EQUIPMENT

DESCRIPTION	UNIT	UNIT COST	* NO. OF CHANGE OUTS PER WORKER PER DAY Man Days (TOTAL HOURS worked in PPE's Div. by WORK HOURS/DAY)			
PPE LEVEL C / C+		$'s	*	MAN DAYS	MAT'L.$'s	LEVEL
LAUNDRY COST per CHANGE	SET	1.96	1	0	$0	C/B
TYVEK COVER-ALL w/HOOD & BOOTIES - DIS	EA	4.46	3	0	$0	C/B
TYVEK COVER-ALL w/HOOD & BOOTIES - DIS	EA	4.46	3	0	$0	C/B
GLOVE LINER - DISPOSABLE	PR	0.24	3	0	$0	C/B
GLOVE, LASTEX - DISPOSABLE	PR	0.26	3	0	$0	C/B
GLOVE, WORK - DISPOSABLE	PR	1.02	3	0	$0	C/B
APR CARTRIDGES - DISPOSABLE, CLEANING	PR	9.38	3	0	$0	C/B
SUB-TOTAL				0	$0	
				$/MD =	#DIV/0!	

PPE LEVEL mC RESS w/ FACE SHIELD		$'s		MAN DAYS	MAT'L.$'s	LEVEL
LAUNDRY COST per CHANGE	SET	1.96	1	0	$0	mC
LT.WT. DISPOSABLE COVERALLS W/HOOD &	PR	4.46	3	0	$0	mC
GLOVE LINER - DISPOSABLE	PR	0.24	3	0	$0	mC
GLOVE, LASTEX - DISPOSABLE	PR	0.26	3	0	$0	mC
GLOVE, WORK - DISPOSABLE	PR	1.02	3	0	$0	mC
SUB-TOTAL				0	$0	mC
				$/MD =	#DIV/0!	

PPE LEVEL D						
LAUNDRY COST per CHANGE	SET	1.96	1	52	$102	D

SUBCONTRACTOR REQUIRED PURCHASES	UNIT		QTY. PER WKR.	NO. OF WORKERS	MAT'L. $'s	LEVEL
RUBBER BOOT COVERS-(1)PR.PER WORKER	PR	12.70	6	0	$0	D/C/B
APR w/HALF FACE MASK - (1) PER WORKER	EA	22.30	6	0	$0	C
APR w/FULL FACE MASK - (1) PER WORKER	EA	174.00	6	0	$0	C
SCBA	EA	1894.00	2	0	$0	B
COOL VESTS	EA	137.50	6	0	$0	C/B
THERMO STRIPS	EA	50.00	6	0	$0	C/B
SUB-TOTAL					$0	C/B

Total PPE Matl $ and Laundry $	$100

(FORWARD TO PAGE 2 OF 2)

OTHER PPE's SUCH AS HARD HAT, SAFETY GLASSES/GOGGLES, STEEL TOED SAFETY SHOES, HEARING PROTECTION, ARE CONSIDERED THE SUBCONTRACTORS RESPONSIBILITY AND ARE COVERED IN HIS OVERHEAD EXPENSE.
FD FERNALD SUPPLIED PPE's, SUCH AS COTTON COVERALLS, EXCHANGE OF RUBBER BOOT COVERS AND RESPIRATORS FOR CHANGEOUTS AND CLEANING OF SAME IS INCLUDED.

APPENDIX "C"

HEALTH PHYSICS

PROJECT: Misc Relocation Projects
ESTIMATE NO IH-2001-05-003
CLIENT: DOE
WBS NO.: 1.1.A.D

DATE: 13-May-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: APRJ4

--MEDICAL MONITORING --

MEDICAL - PHYSICAL and IN-VIVO MONITORING - LOST WORKER TIME for RAD II WORKERS ONLY

DESC. PHYSICAL (3hrs), IN-VIVO (1hr)	QTY	HRS	WKR	TOTAL HOURS	AVG. LABOR RATE	TOTAL LABOR $
BASELINE PHYSICALS	1	4	8	32	$35.28	$1,130
ANNUAL PHYSICALS	0	4	8	0	$35.28	$0
EXIT (TERMINATION) PHYSICALS (IN-VIVO)	1	1	8	8	$35.28	$280
SUB-TOTAL						$1,410

RADIATION IN-VITRO SURVEILLANCE - LOST WORKER TIME for RAD II WORKERS ONLY

DESC.	QTY	HRS	WKR	TOTAL HOURS	AVG. LABOR RATE	TOTAL LABOR $
BI-MONTHLY BIOASSAY	3	1	8	26	$35.28	$910
SUB-TOTAL						$910

RANDOM DRUG TESTING

	TESTS	HRS	TOTAL HRS	AVG. RATE	LABOR $'s
	4	2	8	$35.28	$300

NO. OF WKRS. TESTED	TESTING DAYS PER YR.	AVG. NO. OF TESTS PER DAY	CHANCE/ DAY FOR TEST	NO. OF WKRS. FOR THIS ESTIMATE	CHANCES /DAY FOR TEST for this PROJECT	CONSTR WORKING DAYS
2500	226	11	0.0044	8	0.0352	122

		LABOR $'s THRU SAFETY	LABOR $'s
WORK DELAYS CAUSED BY MONITORING	1.0%	$356,090	$3,600
			LABOR $'s
WORK DELAYS CAUSED BY RAD CHECKING	1.0%	$356,090	$3,600

	TOTAL LABOR	TOTAL MAT'L.	GRAND TOTAL
TOTAL HEALTH PHYSICS - FORWARD TO ESTIMATE SUMMARY SHEET	$9,800	$100	$9,900

APPENDIX "D"

ACTIVITY DURATIONS

PROJECT: Misc Relocation Projects
ESTIMATE N IH-2001-05-003
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 13-May-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: APRJ4

ACTIVITY	EST. DATE	START DATE	MID POINT	COMPL. DATE	ACTIVITY	DURATION
CONSTRUCTION:	12-May-01	14-May-01	20-Aug-01	26-Nov-01	6.4	MONTHS
					0	MONTHS
TOTAL					6.4	MONTHS

	DATE of EST. to MID-POINT ACTIVITY DURATION	
a.	3.3	MONTHS
b.	0	MONTHS

ACTIVITY	EST. DATE	START DATE	MID POINT	COMPL. DATE	ACTIVITY	DURATION
OPERATIONS					0	MONTHS

DATE of EST. to MID-POINT ACTIVITY DURATION	
0	MONTHS

ACTIVITY DURATION IS USED IN DETERMINING NUMBER of WORKERS for CERCLA/SAT TRAINING HOURS and HEALTH PHYSICS COSTS.

COST IMPACT MATRIX SHEET

Estimate No.: IH-2001-05-003
Project: Misc Relocation Projects
Client: DOE
WBS: 1.1.A.D

Fluor Fernald, Inc.

Est. Chg. No.: APRJ4
Date: 13-May-01
Estimator: Ed Lumbert
Location: FERNALD

Base Estimate Total	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
$603,600	3A - Southwest Boilerhous LABOR $		3A - Southwest Boilerhous S/C $		3A - Southwest Boilerhous MAT'L. $		93A - Southwest Boilerhouse EQUIP. $		93A - Southwest Boilerhouse PPE $			
Cost Drivers	Base $	$131,980	Base $	$0	Base $	$64,590	Base $	$0	Base $	$110	Base $	$0
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Productivity	-1%	8%	-1%	8%								
Unit Pricing					-1%	8%	-1%	8%	-1%	8%		
Contamination												
Technology												
Regulations/Laws												
Quantity Variation												
Project Definition	-1%	5%	-1%	5%								
Other												
Range - %	-2%	13%	-2%	13%	-1%	8%	-1%	8%	-1%	8%	0%	0%
Range - $	$129,340	$149,137	$0	$0	$63,944	$69,757	$0	$0	$109	$119	$0	$0
Distribution	U											
Correlation Rank												

	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
	Trailer T-86 and T-87 LABOR $		Trailer T-86 and T-87 S/C $		Trailer T-86 and T-87 MAT'L. $		Trailer T-86 and T-87 EQUIP. $		Trailer T-86 and T-87 PPE $			
Cost Drivers	Base $	$97,270	Base $	$33,500	Base $	$25,580	Base $	$21,100	Base $	$0	Base $	$0
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Productivity	-1%	15%										
Unit Pricing					-1%	12%	-1%	10%	-1%	8%		
Contamination							-1%	10%				
Technology												
Regulations/Laws												
Quantity Variation					-1%	5%						
Project Definition	-1%	5%										
Other												
Range - %	-2%	20%	0%	0%	-2%	17%	-2%	20%	-1%	8%	0%	0%
Range - $	$95,325	$116,724	$33,500	$33,500	$25,068	$29,929	$20,678	$25,320	$0	$0	$0	$0
Distribution												
Correlation Rank												

Analyst:

Client: [signature] 5/14/01

COST IMPACT MATRIX SHEET

Estimate No.: IH-2001-05-003
Project: Misc Relocation Projects
Client: DOE
WBS: 1.1.A.D

Fluor Fernald, Inc.

Est. Chg. No.: APRJ4
Date: 13-May-01
Estimator: Ed Lumbert
Location: FERNALD

	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
	Trailer T-84 LABOR $		Trailer T-84 S/C $		Trailer T-84 MAT'L. $		Trailer T-84 EQUIP. $		Trailer T-84 PPE $			
Cost Drivers	Base $	$43,510	Base $	$0	Base $	$14,660	Base $	$1,700	Base $	$0	Base $	$0
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Productivity	-1%	15%										
Unit Pricing					-1%	10%	-1%	10%	-1%	8%		
Contamination	-1%	8%							-1%	8%		
Technology												
Regulations/Laws												
Quantity Variation					-1%	5%						
Project Definition	-1%	5%										
Other												
Range - %	-3%	28%	0%	0%	-2%	15%	-1%	10%	-2%	16%	0%	0%
Range - $	$42,205	$55,693	$0	$0	$14,367	$16,859	$1,683	$1,870	$0	$0	$0	$0
Distribution												
Correlation Rank												

	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
	quipment Disposition & T- LABOR $		quipment Disposition & T- S/C $		quipment Disposition & T- MAT'L. $		Equipment Disposition & T-3: EQUIP. $		Equipment Disposition & T-3: PPE $			
Cost Drivers	Base $	$92,660	Base $	$0	Base $	$34,150	Base $	$0	Base $	$0	Base $	$0
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Productivity	-1%	12%										
Unit Pricing					-1%	8%	-1%	12%	-1%	8%		
Contamination	-1%	10%										
Technology												
Regulations/Laws												
Quantity Variation	-1%	5%			-1%	5%	-1%	5%				
Project Definition												
Other												
Range - %	-3%	27%	0%	0%	-2%	13%	-2%	17%	-1%	8%	0%	0%
Range - $	$89,880	$117,678	$0	$0	$33,467	$38,590	$0	$0	$0	$0	$0	$0
Distribution												
Correlation Rank												

Analyst: _____

Client: _____

COST IMPACT MATRIX SHEET

Estimate No.: IH-2001-05-003
Project: Misc Relocation Projects
Client: DOE
WBS: 1.1.A.D

Fluor Fernald, Inc.

Est. Chg. No.: APRJ4
Date: 13-May-01
Estimator: Ed Lumbert
Location: FERNALD

	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
	Pre-Engineered Building (APR		Pre-Engineered Building (APR		Pre-Engineered Building (APR		Trailer T-84		Trailer T-84			
	LABOR $		S/C $		MAT'L. $		EQUIP. $		PPE $			
Cost Drivers	Base $	$470	Base $	$0	Base $	$42,320	Base $	$0	Base $	$0	Base $	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Productivity	-1%	12%										
Unit Pricing					-1%	8%	-1%	8%	-1%	8%		
Contamination	-1%	5%										
Technology												
Regulations/Laws												
Quantity Variation					-1%	5%						
Project Definition												
Other												
Range - %	-2%	17%	0%	0%	-2%	13%	-1%	8%	-1%	8%	0%	0%
Range - $	$461	$550	$0	$0	$41,474	$47,822	$0	$0	$0	$0	$0	$0
Distribution												
Correlation Rank												

	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
	0		0		0		0		0			
	LABOR $		S/C $		MAT'L. $		EQUIP. $		PPE $			
Cost Drivers	Base $	$0	Base $	$0	Base $	$0	Base $	$0	Base $	$0	Base $	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Productivity	-1%	12%										
Unit Pricing					-1%	8%	-1%	5%	-1%	5%		
Contamination	-1%	8%					-1%	8%				
Technology												
Regulations/Laws												
Quantity Variation												
Project Definition												
Other												
Range - %	-2%	20%	0%	0%	-1%	8%	-2%	13%	-1%	5%	0%	0%
Range - $	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Distribution												
Correlation Rank												

Analyst: _____

Client: _____

WBS DICTIONARY
CONTROL ACCOUNT/CHARGE NUMBER

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.A.D	FACILITY PROJECTS	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
APRJ5	UPGRADES	

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Subcontractors
Materials
ODC's

b. TECHNICAL CONTENT:

ROAD UPGRADES

This project provides improvements and repairs to the existing onsite asphalt roadways and parking facilities through FY2005. This will correct safety hazards of uneven and broken pavement as well as potholes and ponding water which turns to ice in the winter.

PLANT 6 WATER MANAGEMENT SYSTEM

This project provides for the modification of a system to remove the perched water and storm water from the Plant 6 motor bay sump after decontamination and demolition is complete and prior to soil excavation. It is expected that the flow of water to the motor bay sump will be increased due to additional rainfall accumulating in the basement and running off the floor area. This scope also includes the installation of covers for floor openings to mitigate water accumulation in the Plant 6 motor bay sump.

c. SCOPE OF WORK:

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.A.D	FACILITY PROJECTS	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
APRJ5	UPGRADES	

14. ELEMENT TASK DESCRIPTION

ROAD UPGRADES

This scope includes improvements and repairs to existing asphalt roadways and parking areas. The associated budget is based on repairing and/or replacing approximately 1/4 mile of road (or an equivalent square footage) per year. The following are the anticipated areas:

West Parking Lot Area

This scope includes the areas of the West Parking Lot and the Access Road - South & East sides:

- Remove existing signage & concrete bumpers
- Cut out damaged asphalt areas/remove & replace sub-base if required
- Patch with new asphalt layer to existing elevations
- If required, raise storm drainage catch basins or taper asphalt to it
- Resurface with 1/2" leveling course
- Place 1" finish surface of ODOT 404 asphalt
- Re-stripe lot/identify reserved parking spaces by line color or stencil

East Parking Lot Area

This scope includes the areas of the East Parking Lot; and the North Access Road portion located at Security post westward of main access road):

- No change will be made to the CDL Training area
- Remove existing signage & concrete bumpers
- Cut out damaged asphalt areas/remove & replace sub-base if required
- Patch with new asphalt layer to existing elevations
- If required, raise storm drainage catch basins or taper asphalt to it
- Resurface with 1/2" leveling course
- Place 1" finish surface of ODOT 404 asphalt
- Re-stripe lot/identify reserved parking spaces by line color or stencil

Construction/Overflow Parking Area (Construction overflow parking, TACO trailers parking lots & access road south & west of the TACO lot

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.A.D	FACILITY PROJECTS	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
APRJ5	UPGRADES	

14. ELEMENT TASK DESCRIPTION

- Remove existing signage & concrete bumpers
- Cut out damaged asphalt areas/remove & replace sub-base if required
- Patch with new asphalt layer to existing elevations
- If required, raise storm drainage catch basins or taper asphalt to it
- Resurface with 1/2" leveling course
- Place 1" finish surface of ODOT 404 asphalt
- Re-stripe lot/identify reserved parking spaces by line color or stencil

Process Area Paving Repairs

- Cut out damaged asphalt areas/remove & replace sub-base if required
- Patch with new asphalt layer to existing elevations
- If required, raise storm drainage catch basins or taper asphalt to it
- Resurface with 1/2" leveling course
- Place 1" finish surface of ODOT 404 asphalt
- Re-stripe roads, as needed.

E. Street, North of 2nd Street to Thorium Project

- Cut out damaged asphalt areas/remove & replace sub-base if required
- Patch with new asphalt layer to existing elevations
- If required, raise storm drainage catch basins or taper asphalt to it
- Resurface with 1/2" leveling course
- Place 1" finish surface of ODOT 404 asphalt
- Re-stripe roads, as needed.

PLANT 6 WATER MANAGEMENT SYSTEM

The scope includes, installing a system to pump storm water from Plant 6 motor bay sump to temporary holding tanks located west of Plant 6. The water will then be pumped into trucks and transported to the AWWT. The installation includes the following activities:

- Mobilize tools and equipment etc.
- Installation of approximately 100 ft. of 4" cs pipe.
- Installation of covers for approximately 8 floor openings and 2 stairwells

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.A.D	FACILITY PROJECTS	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
50	L. HAMPSHIRE/4109	R NICHOLS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3010	FACILITY AND PROJECT SUPPORT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0001-00		12/00 - 12/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
APRJ5	UPGRADES	

14. ELEMENT TASK DESCRIPTION

into the basement
- Demobilize

d. WORK SPECIFICALLY EXCLUDED:

- Major rework of storm drainage system
- Fire protection
- Dust control
- Permits and fees
- Second tier subcontract costs
- Project Management
- Waste Management
- Computer purchases and upgrades
- Fluor Fernald General and Administrative Budget

SECTION 5

1.0 NARRATIVE

1. PROJECT TITLE: FACILITY AND PROJECT SUPPORT	2. DATE: 09/10/01	3. PBS#: 01
4. WBS ELEMENT CODE: 1.1.A.D	5. WBS ELEMENT TITLE: FACILITY PROJECTS	
6. CAM NAME/ PHONE: ROBERT HAMMACK	7. CAM SIGNATURE:	
8. ORIGINAL/ CHANGE SCOPE/ PER CP#:	9. CONTROL ACCOUNT: APRJ	

PART 4: APRJ – FACILITY PROJECTS
Section 5: APRJ5 – Upgrades

1.0 NARRATIVE

1.1 OVERVIEW

~~1.1.1 Roof/HVAC~~

R1-F01-036

~~This charge number provides for the repair/replacement of building roofs and repair/upgrades of buildings HVAC required to be occupied through Sept. 2004. This charge number also provides for the management of any Construction Contractor performing roof/HVAC fieldwork and associated planning activities.~~

1.1.~~1~~2 Road Upgrades

R1-D-335

This project provides improvements and repairs to the existing onsite asphalt roadways and parking facilities through FY05. This will correct safety hazards of uneven and broken pavement as well as potholes and ponding water which turns to ice in the winter.

R1-F01-036

1.1.2 Plant 6 Water Management System

This project provides for the modification of a system to remove the perched water and storm water from the Plant 6 motor bay sump after decontamination and demolition is complete and prior to soil excavation. It is expected that the flow of water to the motor bay sump will be increased due to additional rainfall accumulating in the basement and running off the floor area. Installation of covers for floor openings to mitigate water accumulation in the Plant 6 motor bay sump.

1.2 ASSUMPTIONS/EXCLUSIONS

1.2.1 Assumptions

~~1.2.1.1 Roof/HVAC~~

R1-F01-036

~~Assumes that the roof on the South Corridor Roof of Laboratory Building (15A) will need to be repaired or replaced by a Construction Contractor and that the roofs on the~~

R1-F01-036

~~rest of the building will not require replacing during this period but may require some maintenance that would be performed by the Maintenance Division~~

- ~~Assumes that roof repair/replacements for the Laboratory Building (15A) will be performed by a construction contractor~~

- ~~Assumes that the roof of the Services Building (11) will not require repairs or replacements during this period. This roof was replaced in 1994 and has a warranty of at least 10 years~~

- ~~Assumes that the roof of the Administration Building (14A) will not require replacing during this period but may require some maintenance that would be performed by the Maintenance Division~~

- ~~Assumes that the HVAC systems for the Admin. Building will not require replacement or upgrading and that any work performed on these unites will be by the Maintenance Division~~

- ~~Assumes that the HVAC systems for the Service Building will not require replacement or upgrading and that any work performed on these unites will be by the Maintenance Division~~

- ~~Assumes that the HVAC systems for the Lab. Building will not require replacement or upgrading and that any work performed on these unites will be by the Maintenance Division~~

- ~~Assumes that the HVAC systems for the existing Trailers Complexes will not require replacement or upgrading and that any work performed on these unites will be by the Maintenance Division~~

- ~~Assumes that the HVAC systems for the New Trailer Complexes installed for use form October 2004 and beyond will not require replacement or upgrading and that any work performed on these unites will be by the Maintenance Division~~

- ~~Assumes that the Maintenance Division will perform replacement/repairs to the condensate receivers~~

- ~~Manpower calculations are based on the following four possible sources: Historical Data (HD), Industry Standard (IS), Composite of HD & IS (Comp), and Professional Judgement (PJ). See Quanitification Table for calculations by work scope activity/sub activity~~

- ~~Other Direct Costs (ODCs) are based on FY00 actual cost of work performed and budgeted manpower (FTEs), as follows: ODC$s/FTEs. Minimum of $100/FTE will~~

R1-F01-002

~~be used if FY00 calculations are < $100/FTE. See Section 1.5.1)2, for quotient, by work scope function~~

- ~~Premium Overtime is based on FY00 actual cost of work performed overtime hours (OT) and regular (Reg) hours, as follows: OT/Reg. See Section 1.5.1)1 for quotient, by work scope function~~

- ~~Material rate/man-hour for this charge number is .34/man-hour (based data prepared by estimating group and placed on Fernald Intranet, 4/11/01).~~

R1-F01-001

- ~~Subcontractor dollars are based on existing subcontracts at time of this baseline and anticipated new subcontracts not currently in place.~~

1.2.1.~~1~~2 Road Upgrades

- Assume some overtime work will be necessary to alleviate traffic congestion during normal working hours

- Manpower calculations are based on the following four possible sources: Historical Data (HD), Industry Standard (IS), Composite of HD & IS (Comp), and Professional Judgement (PJ). See Calculation Table in Section V for calculations by work scope activity/sub activity

R1-F01-002

- Other Direct Costs (ODCs) are based on FY00 actual cost of work performed and budgeted manpower (FTEs). ~~, as follows: ODC$s/FTEs. Minimum of $100/FTE will be used if FY00 calculations are < $100/FTE.~~ See Section 1.5.1.2, for quotient, by work scope function

R1-D-048

- ~~Premium~~ Overtime is based on FY00 actual cost of work performed overtime hours (OT) and regular (Reg) hours, as follows: OT/Reg. See Section 1.5.1.1 for quotient, by work scope function

- Material rate/man-hour for this charge number is .34/man-hour (based data prepared by estimating group and placed on Fernald Intranet, 4/11/01).

- Subcontractor dollars are based on existing subcontracts at time of this baseline and anticipated new subcontracts not currently in place.

R1-F01-001

- Dollar amounts are unescalated

- All calculations for manpower, subcontracts, materials, and ODCs are based on a 12-month year for 2002, 2003, 2004, 2005, 2006, 2007, 2008, and 2009

- All overtime is planned overtime

R1-F01-001

- Assume that all work activities are based on a 40-hour workweek
- The basis of this estimate assumes the use of Remediation Schedule, and Execution 6 Scenario
- Sales Tax @ 6% for all taxable items
- Estimate is expressed in FY01 dollars
- Estimate represents budget for the length of this charge number

R1-D-335

- A unit rate of $3.81 will be applied for PPE. A unit consist of one anti-contamination coverall, one hood or skull cap, one pair of rubber shoe covers, and one pair of nylon shoe covers
- Subcontractor dollars are based on existing FY01 subcontracts. The current rate is $75 per ton, which covers 18 square feet ($75 per ton equates to $30 per ton of materials and $45 per ton of labor)
- Assumes ¼ mile of road paving per year (or an equivalent square footage)
- Assumes that one area (i.e., West Parking Lot is considered an area) will be upgraded each year

R1-F01-036

1.2.1.2 Plant 6 Water Management System

- Assumes using existing from Building 16B.
- Manpower calculations are based on the following four possible sources: Historical Data (HD), Industry Standard (IS), Composite of HD & IS (Comp), and Professional Judgement (PJ). See Calculation Table in Section V for calculations by work scope activity/sub activity
- Other Direct Costs (ODCs) are based on FY00 actual cost of work performed and budgeted manpower (FTEs). See Section 1.5.1.2 for quotient, by work scope function
- Overtime is based on FY00 actual cost of work performed overtime hours (OT) and regular (Reg) hours, as follows: OT/Reg. See Section 1.5.1.1 for quotient, by work scope function
- Material rate/man-hour for this charge number is .34/man-hour (based data prepared by estimating group and placed on Fernald Intranet, 4/11/01).
- Subcontractor dollars are based on existing subcontracts at time of this baseline and anticipated new subcontracts not currently in place.
- Dollar amounts are unescalated
- All calculations for manpower, subcontracts, materials, and ODCs are based on a 12-month year for 2002, 2003, 2004, 2005, 2006, 2007, 2008, and 2009
- All overtime is planned overtime

- Assume that all work activities are based on a 40-hour workweek
- The basis of this estimate assumes the use of Remediation Schedule, and Execution 6 Scenario
- Sales Tax @ 6% for all taxable items
- Estimate is expressed in FY01 dollars
- Estimate represents budget for the length of this charge number
- Assumes floor openings will be covered to mitigate water accumulation in the Plant 6 motor bay sump

R1-F01-036

1.2.2 Exclusions

R1-F01-001

~~1.2.2.1 Roof/HVAC~~

- ~~None~~

1.2.2.1~~2~~ Road Upgrades

R1-F01-001

- Major rework of storm drainage system
- Computer purchases and upgrades
- Does not include Fluor Fernald General Administrative Cost

1.2.2.2 Storm Water Transfer System

R1-F01-036

- Fire protection
- Dust control
- Permits and fees
- FF G&A (Home Office Expense)
- Any Second tier subcontract costs
- Project Management
- Waste Management
- Computer purchases and upgrades
- Does not include Fluor Fernald General Administrative Cost

1.2.3 Government-Furnished Equipment/Services

R1-F01-036

~~None~~1.2.3.1 Road Upgrades
None

1.2.3.2 Plant 6 Water Management System
None

1.3 DRIVERS

R1-F01-036

1.3.1 ~~Roof/HVAC~~

- ~~To provide and maintain current work space for the period leading up to demolition of the Administration and Laboratory Buildings, Activity # 211BBTC1 and 211BBDG~~

R1-F01-036

1.3.~~1~~2 Road Upgrades

- Improvements and repairs will be performed to correct the safety hazards

R1-F01-036

1.3.2 Plant 6 Water Management System

- The requirement is based on the need to provide protection of the Great Miami Aquifer and meet wastewater treatment requirements committed to in the OU5 Record of Decision (ROD).

1.4 PROJECT PHYSICAL DESCRIPTION

~~1.4.1 Roof/HVAC~~

R1-F01-036

~~1) Task #1 – Laboratory Building (11) South Corridor Roof Replacement~~

~~The Laboratory Building is located West of the Services Building and North of 1rst Street. The Laboratory Building consist of three corridors that run east to west, the southern most corridor roof will be replaced.~~

1.4.~~1~~2 Road Upgrades

R1-F01-036

~~1) Task #1~~ 1.4.1.1 West Parking Lot Area and South Access Road

This scope includes the areas of the West parking lot and the South Access Road. The West parking lot is located South of the Administration Building and East of the TACO Trailer. The South Access Road connects Willey Road to ~~T~~the West Parking lot.

~~2) Task #2~~ 1.4.1.2 East Parking Lot Area and North Access Road

This scope includes the areas of the East ~~parking~~ Parking ~~lot~~ Lot and the North Access Road. The East Parking Lot is located South of the East Trailer Complex . The North Access Road connects Route 126 to the East Parking lot. Also included is the Construction Overflow Parking lot located West of Building 3~~0~~\45 and Miscellaneous areas on the existing process area roadways.

R1-F01-036

~~1.4.1.3~~ Plant 6 Water Management System

R1-F01-036

This scope includes installing a system to pump storm water from the Plant 6 Motor Bay sump to temporary holding tanks located west of Plant 6. The water will then be pumped into trucks and transported to the AWWT.

1.5 PROJECT PLAN/TECHNICAL SCOPE AND QUANTIFICATION

R1-F01-036

1.5. ~~1 Roof/HVAC~~

~~1) Task #1 - Laboratory Building (11) South Corrider Roof~~

~~1.1) Plan/Scope~~

~~Replacement~~

- ~~Mobilize tools and equipment etc.~~
- ~~Removal of ballast, built up roofing and insulation~~
- ~~Installation of new insulation~~
- ~~Installation of new curbs for equipment and vents~~
- ~~Installation of new flashing around curbs and roof edge~~
- ~~Installation of new EPDM (Ethylene Propylene Diene Monomer) roofing~~
- ~~Installation of temporary fall protection;~~
- ~~Placement of waste in containers~~
- ~~Demobilize~~
- ~~The contractor performing the work will:~~

  ~~-Furnish all labor, supervision, administration, material, tools and equipment to construct the (job title)~~

  ~~-Work shall be performed in accordance with drawings and specifications, environmental health & safety and training requirements~~

  ~~-Quality requirements and provisions of this statement of work~~

- ~~The scope of work for this charge number will require support for planning activities from the following organizations/resources which are budgeted in another cost account:~~

  ~~-Engineering for Title 1 and II~~
  ~~-Project Engineer~~
  ~~-CCM~~
  ~~-CE~~
  ~~-Maintenance~~
  ~~-Acquisitions~~
  ~~-IH Engineer~~
  ~~-RAD Engineer~~

R1-F01-036

☐The scope of work for this charge number will require support for field and close out activities from the following organizations/resources which are budgeted in another cost account:

- CCM
- CE
- Rad Engineer
- Maintenance
- WAO
- Waste Generator Services

☐The scope of work for this charge number will require support from the following organizations/resources which are included in this cost account:

- GBCT&C direct craft
- Roofing Subcontractor
- Safety Representative
- Radiological Technicians
- IH Technicians

R1-F01-036

~~Table 1.5.1 – Quantification Table~~
~~Laboratory Building (11) South Corridor Roof Replacement~~

~~Activity~~	~~Sub-Activity~~	~~Calc Type~~	~~Calculations~~
~~Activity: This scope will be used to install a new roof on the Laboratory Building South Corridor.~~ ~~General Materials:~~ ~~$ 594/FTE~~ ~~Additional Materials:~~ ~~1)Safety Railing System~~ ~~2)1760 feet – PVC single ply membrane~~ ~~3)2320 square feet of 45 mil EPDM single ply membrane~~ ~~4)2000 square feet of flashing~~ ~~5)20 Ton of Gravel~~	~~Mobilize Tools and Equipment~~	~~HD~~	~~.05 Laborers~~ ~~.06 Safety~~
~~Additional Material Cost $ 100,000~~ ~~Subcontractors:~~ ~~Wise Construction $246,000~~	~~Removal of ballast, built up roofing and insulation~~	~~HD~~	~~.32 Laborers~~ ~~.06 Safety~~ ~~.13 Rad Techs~~
~~ODC's~~ ~~*ODC 600* – None~~ ~~*ODC 700* – None~~ ~~*ODC Travel* – None~~	~~Installation of new insulation~~	~~HD~~	~~.15 Roofers~~ ~~.06 Safety~~ ~~.03 IH Techs~~
	~~Installation of new curbs around equipment and vents~~	~~HD~~	~~.15 Roofers~~ ~~.06 Safety~~ ~~.03 IH Techs~~
	~~Installation of new flashing around curbs and roof edge~~	~~HD~~	~~.15 Roofers~~ ~~.06 Safety~~ ~~.03 IH Techs~~
	~~Installation of new EPDM (Ethylene Propylene Diene Monomer) roofing~~	~~HD~~	~~.15 Roofers~~ ~~.06 Safety~~ ~~.03 IH Techs~~
	~~Installation of temporary fall protection~~	~~HD~~	~~.15 Roofers~~ ~~.06 Safety~~ ~~.03 IH Techs~~
	~~Placement of waste in containers~~	~~HD~~	~~.32 Laborers~~ ~~.06 Safety~~ ~~.13 Rad Techs~~
	~~Demobilize~~	~~HD~~	~~.05 Laborers~~ ~~.06 Safety~~

R1-F01-003

R1-F01-036

~~1.5.2~~1.5.1 Road Upgrades

~~1) Task #1 –~~1.5.1.1 West Parking Lot Area

~~1.1) Plan/Scope~~

- This scope includes the areas of the West ~~parking~~ Parking ~~lot~~ Lot and the Access Road - -South and East sides:

- Remove existing signage & concrete bumpers
- Cut out damaged asphalt areas/remove & replace sub-base if required
- Patch with new asphalt layer to existing elevations
- If required, raise storm drainage catch basins or taper asphalt to it
- Resurface with ½" leveling course
- Place 1" finish surface of ODOT 404 asphalt
- Re-stripe lot/identify reserved parking spaces by line color or stencil

R1-F01-036

~~2) Task #2~~ 1.5.1.2 -East Parking Lot Area

~~2.1) Plan/Scope~~

R1-D-335

- This scope includes the areas of the East ~~parking~~ Parking ~~lot~~Lot; and the North Access Road portion located at Security post westward of main access road):

  - No change will be made to the CDL Training area
  - Remove existing signage & concrete bumpers
  - Cut out damaged asphalt areas/remove & replace sub-base if required
  - Patch with new asphalt layer to existing elevations
  - If required, raise storm drainage catch basins or taper asphalt to it
  - Resurface with ½" leveling course
  - Place 1" finish surface of ODOT 404 asphalt
  - Re-stripe lot/identify reserved parking spaces by line color or stencil

- Construction/Overflow Parking Area (Construction overflow parking, TACO trailers parking lots & access road south & west of the TACO lot

  - Remove existing signage & concrete bumpers
  - Cut out damaged asphalt areas/remove & replace sub-base if required
  - Patch with new asphalt layer to existing elevations
  - If required, raise storm drainage catch basins or taper asphalt to it
  - Resurface with ½" leveling course
  - Place 1" finish surface of ODOT 404 asphalt
  - Re-stripe lot/identify reserved parking spaces by line color or stencil

- Process Area Paving Repairs

  - Cut out damaged asphalt areas/remove & replace sub-base if required
  - Patch with new asphalt layer to existing elevations
  - If required, raise storm drainage catch basins or taper asphalt to it
  - Resurface with ½" leveling course
  - Place 1" finish surface of ODOT 404 asphalt
  - Re-stripe lot/identify reserved parking spaces by line color or stencil

- E. Street, North of 2nd Street to Thorium Project

  - Cut out damaged asphalt areas/remove & replace sub-base if required
  - Patch with new asphalt layer to existing elevations
  - If required, raise storm drainage catch basins or taper asphalt to it
  - Resurface with ½" leveling course
  - Place 1" finish surface of ODOT 404 asphalt
  - Re-stripe lot/identify reserved parking spaces by line color or stencil

- The scope of work for this charge number will require support for planning activities from the following organizations/resources which are budgeted in another cost account:

  - Engineering for Title 1 and II
  - Project Engineer
  - CCM
  - CE
  - Maintenance
  - Acquisitions
  - IH Engineer
  - RAD Engineer

- The scope of work for this charge number will require support for field and close out activities from the following organizations/resources which are budgeted in another cost account:

  - CCM
  - CE
  - Rad Engineer
  - Maintenance
  - WAO
  - Waste Generator Services

- The scope of work for this charge number will require support from the following organizations/resources which are included in this cost account:

R1-D-335

  - ~~GCBT&C direct craft~~ Paving Contractor
  - Safety Representative
  - Radiological Technicians
  - IH Technicians
  - QA/QC Technician

R1-F01-036

~~2.2) Quantification/Premium Overtime~~

~~New Charge Number .0000 X REGULAR HOURS~~

R1-F01-036

~~2.3) ODCs~~

~~ODC 600 – None~~
~~ODC 700 – None~~
~~ODC Travel – None~~

~~2.4) Subcontracts~~

~~Road repair: 1400 square yards per year valued at $500,000 (Includes patching materials)~~

~~Roof repair: $246,000 assuming Wise Construction~~

~~General Materials – $594/FTE~~

~~Additional Materials for Roof Repair are $100,000.~~

TABLE 1.5.21

Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity/Material/ODC's	Sub-Activity	Calculation Type	Calculations
Activity: This scope will be used to perform paving repairs to the east & west parking lots and the north & south access roads.	Mobilize Tools and Equipment	HD	
	West Parking Lot Area		
	Remove existing signage & concrete bumpers	HD	.1 IH Tech
	Cut out damaged asphalt areas/remove & replace sub-base if required	HD	.1 QA/QC Tech .1 Safety ENG
General Materials: $ 594/FTE	Patch with new asphalt layer to existing elevations		
	If required, raise storm drainage catch basins or taper asphalt to it	HD	
Additional Materials: Additional Material Cost $ 0 (Materials are included in the fixed price subcontract)	Resurface with ½" leveling course	HD	
	Place 1" finish surface of ODOT 404 asphalt	HD	
Subcontractors: Paving Contractor $100,000 per year ($60,000 labor & $40,000 materials)	Re-stripe lot/identify reserved parking spaces by line color or stencil	HD	
	East Parking Lot Area		
ODC's	No change will be made to the CDL Training area	HD	
ODC 600 – None	Remove existing signage & concrete bumpers	HD	.1 IH Tech .1 QA/QC Tech .1 Safety ENG
ODC 700 – None	Cut out damaged asphalt areas/remove & replace sub-base if required		
ODC Travel – None	Patch with new asphalt layer to existing elevations asphalt to it	HD	
Overtime - ~~This account assumes an overtime rate of 83.53% for Radiological Technicians and Safety Engineers at time and a half (1.5x). All data is based on historical data and professional judgement.~~ Overtime at 1.5x for Rad Tech 29.32 and Safety Engineer 25.84%	Resurface with ½" leveling course	HD	
		HD	
		HD	
		HD	

R1-D-048

TABLE 1-5-21

Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity/Material/ODC's	Sub-Activity	Calculation Type	Calculations
	Place 1" finish surface of ODOT 404 asphalt	HD	
	Re-stripe lot/identify reserved parking spaces by line color or stencil	HD	
	Construction/Overflow and TACO Parking Areas	HD	.1 IH Tech
	Remove existing signage & concrete bumpers	HD	.1 QA/QC Tech .1 Safety ENG
	Cut out damaged asphalt areas/remove & replace sub-base if required	HD	
	Patch with new asphalt layer to existing elevations	HD	
	If required, raise storm drainage catch basins or taper asphalt to it	HD	
	Resurface with ½" leveling course	HD	
	Place 1" finish surface of ODOT 404 asphalt	HD	
	Re-stripe lot/identify reserved parking spaces by line color or stencil	HD	
	Process Area Paving Repairs	HD	
	Cut out damaged asphalt areas/remove & replace sub-base if required	HD	
	Patch with new asphalt layer to existing elevations	HD	
	If required, raise storm drainage catch basins or taper asphalt to it		.1 IH Tech .1 QA/QC Tech .1 Safety ENG
	Resurface with ½" leveling course	HD	
	If required, raise storm drainage catch basins or taper course 1"	HD	

R1-D-335

TABLE 1.5.21

Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity/Material/ODC's	Sub-Activity	Calculation Type	Calculations
	Place 1" finish surface of ODOT 404 asphalt	HD	
	Re-stripe lot/identify reserved parking spaces by line color or stencil	HD	
	E. Street, North of 2nd Street to Thorium Project		
	Cut out damaged asphalt areas/remove & replace sub-base if required	HD	.1 IH Tech .1 QA/QC Tech .1 Safety ENG
	Patch with new asphalt layer to existing elevations		
	If required, raise storm drainage catch basins or taper asphalt to it	HD	
	Resurface with ½" leveling course	HD	
	Place 1" finish surface of ODOT 404 asphalt		
	Re-stripe lot/identify reserved parking spaces by line color or stencil	HD	
	Demobilize	HD	
		HD	
		HD	

R1-F01-003

R1-F01-036

1.5 Sump Plan/Scope

1.5.3 Plant 6 Water Management System

- Mobilize tools and equipment etc.
- Installation of approximately 100 ft. of 4" cs pipe
- Installation of covers for approximately 8 floor openings and 2 stairwells into the basement
- Demobilize
- The scope of work for this charge number will require support for planning activities from the following organizations/resources which are budgeted in another cost account:
  - Engineering for Title I and II
  - Project Engineer
  - CCM
  - CE
  - Maintenance
  - Acquisitions

R1-F01-036

- IH Engineer
- RAD Engineer

- The scope of work for this charge number will require support for field and close out activities from the following organizations/resources which are budgeted in another cost account:
  - CCM
  - CE
  - Rad Engineer
  - Maintenance
  - WAO
  - Waste Generator Services
- The scope of work for this charge number will require support from the following organizations/resources which are included in this cost account:
  - GBCT & C direct craft (Wise)
  - Safety Representative
  - Radiological Technicians
  - IH Technicians

TABLE 1.5.32

Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity/Material/ODCs	Sub-Activity	Calculation Type	Calculations
Activity: This scope will be used to install a transfer system form the Plant 6 motor bay sump to the laundry sump on the north side of the service building. **General Materials:** $ 594/FTE **Additional Materials:** 45' class II poles #1/0 AL Power Cable Cu Ground Wire Messenger Cable Guy wire Concrete for ductbank 480v 3 ph Disconnect Switch NEMA -1-Starter- enclosure combo	Mobilize Tools and Equipment Installation of 1750 rpm, 400 gpm, 30 hp sump pump Installation of Approx. 1000' of 4" pipe Installation heat tracing Installation of insulation Installation of 4-45' class II poles Installation of #1/0 Al power cable Installation of ductbank Installation of transformers Demobilize	HD HD HD HD HD HD HD HD HD HD	.1 IH Tech .3 RAD Tech .3 Safety ENG .1 QA/QC Tech
13.2kva 480v IPH pole mounted transformer 480v 60hz 40hp variable speed AC drive 15kva 480v 3ph transformer ¾", 1 1/2", and 3" Conduit Heat trace system 1750 rpm, 400 gpm, 30 hp sump pump 4" carbon steel pipe and fittings 4" gate valves Pipe insulation			

R1-F01-036

TABLE 1.5.32

Historical Data = (HD), Industry Standard = (IS), Composite of HD & IS = (Comp), Professional Judgement = (PJ)

Activity/Material/ODCs	Sub-Activity	Calculation Type	Calculations
Additional Material Cost: $ 117,000 Subcontractors: Wise Construction $202,000			
ODC's *ODC 600* – None *ODC 700* – None *ODC Travel* – None Overtime – This account assumes an overtime rate of 83.53% for Radiological Technicians and Safety Engineers at time and a half (1.5x). All data is based on historical data and professional judgement.			

R1-F01-003

SECTION 5

2.0 MANPOWER PLANS

Manpower Planning Sheet (CR2)

MPS # 1AD04 ROOF/HVAC BLDG UPGRADES

	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
212	OFFICE TRAILER D&D	10/03/2005	04/03/2007							xxx xxx xxx xxx
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	

Plant 6 Sump	Subcontract	Subcontract Craft	4.00	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Environmental Safety & H	Industrial Hygienist Tech.	0.20	0	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	0	0	0	0
	Environmental Safety & H	Rad Tech	0.60	0	0	0	0	0	0.3	0.3	0	0	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	1.00	0	0	0	0	0	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
	QA/QC	QA/QC Tech.	0.20	0	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	0	0	0	0
Paving	Environmental Safety & H	Industrial Hygienist Tech.	0.50	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	0	0	0	0	0	0
	QA/QC	QA/QC Tech.	0.50	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	0	0	0	0	0	0
	Environmental Safety & H	Safety Engineer	0.50	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	0	0	0	0	0	0
	Subcontract	Subcontract Craft	17.00	0	0	3.4	0	0	0	3.4	0	0	0	3.4	0	0	0	3.4	0	0	0	3.4	0	0	0	0	0	0	0	0	0	0
		Sheet Totals:	24.50	0.00	0.00	3.70	0.00	0.00	3.00	6.70	0.00	0.00	0.00	3.70	0.00	0.00	0.00	3.70	0.00	0.00	0.00	3.70	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 # 1AD04 ROOF/HVAC BLDG UPGRADES

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
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																				
212 OFFICE TRAILER D&D	10/03/2005	04/03/2007	XXX	XXX	X																	
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																				
Subcontract	Subcontract Craft		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Industrial Hygienist 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 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
QA/QC	QA/QC Tech.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Industrial Hygienist Tech.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QA/QC	QA/QC 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
Subcontract	Subcontract Craft		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

3.0 ESTIMATE

APRJ5

UPGRADES

PBS: 01
WBS: 1.1.A.D
CTRL ACCT: APRJ
CHARGE NO: APRJ5
COMMENT NO: F01-004 & F01-036

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
**** STATED IN FY01 DOLLARS ****
(1 FTE EQUALS 1747 HOURS)

DATE: 13 MAY 2001
PROJECT MGR: R. NICHOLS
CAM: R. NICHOLS
PREPARED BY: L. HAMPSHIRE
ALL FISCAL YEARS

Resource: INHTEC **INDUST HYGIENIST TEC** **EOC:** LABOR
Res Dept: **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:	127.9	214.4	128.1	129.9	128.4	0.0	0.0	0.0	0.0	0.0
Cum Hours:	127.9	342.3	470.4	600.3	728.7	728.7	728.7	728.7	728.7	728.7
Yr Total Cost:	4,819	8,506	5,383	5,780	6,052	0	0	0	0	0
Cum Total Cost:	4,819	13,325	18,707	24,488	30,540	30,540	30,540	30,540	30,540	30,540

Resource: MAT300 **MATERIAL OBJCLASS300** **EOC:** MATERIAL
Res Dept: 950 **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:	0.0	30,150.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Units:	0.0	30,150.0	30,150.0	30,150.0	30,150.0	30,150.0	30,150.0	30,150.0	30,150.0	30,150.0
Yr Total Cost:	0	30,964	0	0	0	0	0	0	0	0
Cum Total Cost:	0	30,964	30,964	30,964	30,964	30,964	30,964	30,964	30,964	30,964

Resource: QACTEC **QA/QC TECH** **EOC:** LABOR
Res Dept: **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	86.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	0.0	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.5
Yr Total Cost:	0	2,812	0	0	0	0	0	0	0	0
Cum Total Cost:	0	2,812	2,812	2,812	2,812	2,812	2,812	2,812	2,812	2,812

Resource: RADTEC **RAD TECH** **EOC:** LABOR
Res Dept: **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:	134.9	407.1	135.1	136.9	135.4	0.0	0.0	0.0	0.0	0.0
Cum Hours:	134.9	542.0	677.1	814.0	949.4	949.4	949.4	949.4	949.4	949.4

INCLUDES ESCALATION COSTS

Yr Total Cost:	4,715	14,963	5,266	5,649	5,920	0	0	0	0	0
Cum Total Cost:	4,715	19,679	24,945	30,594	36,514	36,514	36,514	36,514	36,514	36,514

Resource: S&HENG **SAFETY ENGINEER** **EOC:** LABOR
Res Dept: **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:	224.1	668.0	224.5	227.5	225.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	224.1	892.1	1,116.6	1,344.1	1,569.1	1,569.1	1,569.1	1,569.1	1,569.1	1,569.1
Yr Total Cost:	11,413	35,528	12,747	13,675	14,330	0	0	0	0	0
Cum Total Cost:	11,413	46,941	59,688	73,363	87,692	87,692	87,692	87,692	87,692	87,692

Resource: SERVSUB **SUBS** **EOC:** SUBCONTRACTORS
Res Dept: **Overtime:** STVR **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:	100,000.0	100,000.0	100,000.0	100,000.0	100,000.0	0.0	0.0	0.0	0.0	0.0
Cum Units:	100,000.0	200,000.0	300,000.0	400,000.0	500,000.0	500,000.0	500,000.0	500,000.0	500,000.0	500,000.0
Yr Total Cost:	100,000	102,700	105,473	108,426	111,462	0	0	0	0	0
Cum Total Cost:	100,000	202,700	308,173	416,599	528,061	528,061	528,061	528,061	528,061	528,061

Resource: WISE **WISE CONSTRUCTION** **EOC:** SUBCONTRACTORS
Res Dept: 950 **Overtime:** SUMP **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	36,200.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Units:	0.0	36,200.0	36,200.0	36,200.0	36,200.0	36,200.0	36,200.0	36,200.0	36,200.0	36,200.0
Yr Total Cost:	0	37,177	0	0	0	0	0	0	0	0
Cum Total Cost:	0	37,177	37,177	37,177	37,177	37,177	37,177	37,177	37,177	37,177

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:	486.8	1,376.0	487.7	494.3	488.8	0.0	0.0	0.0	0.0	0.0
Cum Hours:	486.8	1,862.9	2,350.6	2,844.9	3,333.7	3,333.7	3,333.7	3,333.7	3,333.7	3,333.7
Yr Total Cost:	120,948	232,650	128,869	133,530	137,764	0	0	0	0	0
Cum Total Cost:	120,948	353,597	482,466	615,996	753,760	753,760	753,760	753,760	753,760	753,760

CAM _____ CONTROL TEAM _____

INCLUDES ESCALATION COSTS

Fluor Fernald, Inc.

PROJECTS CONTROLS
ESTIMATING SERVICES

August 2, 2001

PROJECT DESCRIPTION: Upgrades
WBS NUMBER: 1.1.A.D
PROJECT ENGINEER: Tom Jesse
ESTIMATOR: Ed Lumbert
ESTIMATE NUMBER: C3-2001-05-004 R1

BASIS OF ESTIMATE

SUPPORTING DOCUMENTATION:

Verbal Scope	☐	P & ID's	☐	Work Plan	☐
Drawings	☐	Equipment List	☐	Site Walk	☐
Sketches	☐	Specifications	☐	Eng. Mtg.	☐
Flow Diagrams	☐	Written Scope	☒	Estimate	☐

TYPE OF ESTIMATE:

Change Proposal	☐	Government	☐
Plan/Feasibility	☐	Conceptual	☐
Construction	☐	Title I Design	☐
Budget	☒	Independent	☐

BASIS OF ESTIMATE:

Prepare a control estimate to determine the cost of Upgrades. Estimate to include manhours, labor, material, equipment, and subcontract costs for the following structures:

Road Upgrades
Plant 6 Water Transfer System

Rev 1 accounts for revised scope of work for Plant 6 Water Transfer System and deletion of Roof/HVAC scope for the Lab Building.

Fluor Fernald, Inc.

PROJECTS CONTROLS
ESTIMATING SERVICES

August 2, 2001

PROJECT DESCRIPTION: Upgrades
WBS NUMBER: 1.1.A.D
PROJECT ENGINEER: Tom Jesse
ESTIMATOR: Ed Lumbert
ESTIMATE NUMBER: C3-2001-05-004 R1

ESTIMATE ASSUMPTIONS

EXECUTION:

- ☒ This project is to be performed on a 40-hour week, 10 hours a day.
- ☐ This project is to be performed on a 40-hour week, 8 hours a day.
- ☐ Premium time allowed.

WAGE RATES:

- ☐ Wage rates within this estimate are based on Project Labor Agreement rates, effective October 2000 and are considered FY01 dollars for estimating.
- ☒ Wage rates within this estimate are based on FF Support Contractor FSC 599 wage rates, effective October 1999 have been escalated 3% and are considered FY01 dollars for estimating.
- ☐ Wage rates within this estimate are based on FF FTE Planning Labor Rates FY01.

ENGINEERING:

- ☒ N/A
- ☐ Engineering dollars provided by the Project Engineer.
- ☐ Engineering dollars have been factored in at the standard 12% of the total direct and indirect field costs as per request of Project Engineer.

CONSTRUCTION MANAGEMENT:

- ☒ N/A
- ☐ Construction Management dollars provided by the Project Engineer.
- ☐ Construction Management dollars have been factored in at the standard 30% of the total direct and indirect field costs as per request of Project Engineer.

PROJECT MANAGEMENT:

- ☒ N/A
- ☐ Project Management dollars provided by the Project Engineer.
- ☐ Project Management dollars have been factored in at the standard 30% of the total direct and indirect field costs as per request of Project Engineer.

WASTE PROGRAM MANAGEMENT:

- ☒ N/A
- ☐ Waste Program Management dollars provided by the Project Engineer.

Fluor Fernald, Inc.

PROJECTS CONTROLS
ESTIMATING SERVICES

August 2, 2001

PROJECT DESCRIPTION: Upgrades
WBS NUMBER: 1.1.A.D
PROJECT ENGINEER: Tom Jesse
ESTIMATOR: Ed Lumbert
ESTIMATE NUMBER: C3-2001-05-004 R1

PRODUCTIVITY:

A productivity factor has been developed and applied to the unit man-hours derived from MEANS, Richardson, NECA, and or any other published estimating source. See attachment APPENDIX AA@ and APPENDIX AB@.

ESCALATION:

Escalation costs are excluded from the target estimate. The escalation costs are calculated within the Micro-Frame computer system according to the plan for rebaselining.

UNIT RATES:

Unit man-hours, equipment and material dollars are based on Richardson, MEANS, NECA, and or other published rates.

G & A (HO EXPENSE):

G & A are excluded from the target estimate. The G & A cost are calculated within the Micro-Frame computer system according to the plan for rebaselining.

HEALTH PHYSICS:

See attached APPENDIX AC@.

RISK BUDGET:

N/A.

CONTINGENCY:

N/A.

Fluor Fernald, Inc.

PROJECTS CONTROLS
ESTIMATING SERVICES

August 2, 2001

PROJECT DESCRIPTION: Upgrades
WBS NUMBER: 1.1.A.D
PROJECT ENGINEER: Tom Jesse
ESTIMATOR: Ed Lumbert
ESTIMATE NUMBER: C3-2001-05-004 R1

ESTIMATE INCLUSIONS & EXCLUSIONS

INCLUSIONS:

- X Premobilization & Mobilization.
- X Demobilization.
- X Labor hours.
- X Material dollars.
- X Equipment dollars.

EXCLUSIONS:

- X Premium time.
- X Permits and fees.
- X FF G & A (Home Office Expense).
- X Construction Management.
- X Any second tier subcontract costs.
- X Project Management dollars.
- X Waste Management dollars.

SUPPORT CONTRACTOR ESTIMATE SUMMARY SHEET

PROJECT: Upgrades
ESTIMATE NO.: IH-2001-05-004 R1
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 02-Aug-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO: APRJ5

	DESCRIPTION	M/H	AVG. RATE	SPT.CONT. LABOR $	FERNALD S/C / OTHER	FERNALD MAT'L $	FERNALD EQUIP $	FERNALD TOTAL $
	Road Upgrades				$500,000			$500,000
	Plant 6 Water Transfer System	694		$26,300		$30,150		$30,150
	SUPPORT CONT. / FF D. F. COST TOTAL	694	$37.88	$26,300	$500,000	$30,150		$530,150
	SUPERVISION	132		$7,000				
	SMALL TOOLS & CONSUMABLES					$2,900		$2,900
	MISC. EQUIP.RENTAL							
	JOB CLEAN-UP	32		$1,200		$400		$400
	SAFETY	13		$500		$300		$300
	HEALTH PHYSICS S/C	32		$1,200		$1,400		$1,400
	JOB SPECIFIC TRAINING							
	SUPPORT CONT. INDIRECT FIELD COST TOTAL	209		$9,900				
	SUPPORT CONT. TOTAL BILLABLE COSTS	903	$40.08	$36,200				
	TEMPORARY FACILITIES							
	TEMPORARY UTILITY HOOK-UP							
	FD FERNALD SALES TAX					$2,100		$2,100
	FF INDIRECT FIELD COSTS TOTAL					$7,100		$7,100
	FF DIRECT & INDIRECT FIELD COSTS TOTAL				$500,000	$37,250		$537,250
	FF and SUPT.CONT. DIRECT & INDIRECT FIELD COST TOTAL			$36,200	$500,000	$37,250		$573,450
	SUB-TOTAL (BASE ESTIMATE)							$573,450
	TARGET ESTIMATE (FY 01 DOLLARS)							$573,450

ESTIMATE PERFORMED B

SUPPORT CONTRACTOR ESTIMATE SUMMARY SHEET

PROJECT: Upgrades
DATE: 02-Aug-01

ESTIMATE NO.: IH-2001-05-004 R1
ESTIMATOR: Ed Lumbert

CLIENT: DOE
LOCATION: FERNALD

WBS NO.: 1.1.A.D
TASK NO.: APRJ5

FACTORS

	SUPT.CONT.	FD FERNALI					PROJECT =
	LABOR $	LABOR $	S/C $	MAT'L. $	EQUIP. $	PPE $	TOTAL $
DFC DOLLARS	$26,300		$500,000	$30,150		$1,400	$557,850
IFC COST FACTOR	1.3764	1.0000	1	1.1194		--	
SALES TAX COST FACTOR	--	--	--	1.0600	1.0600	1.0600	
BOND + OVERHEAD & PROFIT COST FACTOR	N/A	N/A	N/A	N/A	N/A	N/A	
DIRECT FIELD COST FACTOR =	1.3764	1.0000	1.0000	1.1866		1.0600	
DIRECT BASE ESTIMATE $'s	$36,200		500000	$35,775		$1,484	$573,459
RISK BUDGET FACTOR	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
DIRECT TARGET ESTIMATE FACTOR	1.3764	1.0000	1	1.1866		1.0600	
DIRECT TARGET ESTIMATE (FY00 DOLLARS)	$36,200		500000	$35,775		$1,484	$573,459

NOTE:
1.) If there are no equipment rental costs in the "Directs" (0 $'s in I20) and the default allowance of $3.50 per MH has been used in the "indirects", input the indirect Equip. $'s in H62 and put a dash in H63. This will treat the Equip. $'s as direct cost and apply the sales tax factor.
On page 3 below, insert the equipment $'s in any pay items that apply.

SUPPORT CONTRACTOR ESTIMATE SUMMARY SHEET

PROJECT: Upgrades
DATE: 02-Aug-01
ESTIMATE NO.: IH-2001-05-004 R1
Direct Field Cost
ESTIMATOR: Ed Lumbert
CLIENT: DOE
w/FACTORS
LOCATION: FERNALD
WBS NO.: 1.1.A.D
TASK NO.: APRJ5

		SUPPORT CONT.	FF					PROJECT
PAY ITEM NO.	DESCRIPTION	LABOR $	LABOR $	S/C $	MAT'L. $	EQUIP. $	PPE $	TOTAL $
	PPE						1400	
							$1,480	$1,480
	Road Upgrades			500,000				500,000
				$500,000				$500,000
	Plant 6 Water Transfer System	26,300			30,150			56,450
		$36,200			$35,780			$71,980
SUB-TOTAL - SUPPORT CONTRACTOR		$36,200						$36,200
SUB-TOTAL - FF				$500,000	$35,780		$1,480	$537,260
TOTAL DIRECT FIELD COSTS w/FACTORS								$573,460

NOTE: The above costs exclude any FD Fernald support costs that may appear on page 1 & 2, such as Waste Disposition, Engineering, Project Management, or Construction Management.

DETAIL ESTIMATE WORKSHEETS

PROJECT: Upgrades
ESTIMATE NO IH-2001-05-004 R1
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 02-Aug-01
ESTIMATOI Ed Lumbert
LOCATION: FERNALD
TASK NO.: APRJ5

	DIRECT COST SUMMARY	QTY	UNIT	MAN-HOURS			COST / UNIT				LABOR	S/C	MAT'L	EQUIP	TOTAL
				Unit	Total	Rate	Labor	S/C	Mat'l	Equip					
	Road Upgrades											$500,000			$500,000
	Plant 6 Water Transfer System				694						$26,290		$30,150		$56,440
	DIRECT COST SUMMARY	1	LOT		694	$37.87					$26,290	$500,000	$30,150		$556,440

DETAIL ESTIMATE WORKSHEETS

PROJECT: Upgrades
ESTIMATE NO: IH-2001-05-004 R1
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 02-Aug-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: APRJ5

PPE LEVEL	Road Upgrades	QTY	UNIT	MAN-HOURS Unit	MAN-HOURS Total	MAN-HOURS Rate	COST / UNIT Labor	COST / UNIT S/C	COST / UNIT Mat'l	COST / UNIT Equip	LABOR	S/C	MAT'L	EQUIP	TOTAL
	Improvements & repairs to asphalt roadways and parking facilities.														
mD	Paving Subcontract	5	yrs					100,000				$500,000			$500,000
	Road Upgrades											**$500,000**			**$500,000**

SUPPORT CONTRACTOR Stated in FY01 DOLLARS

PROJECT: Upgrades
ESTIMATE NO IH-2001-05-004 R1
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 02-Aug-01
ESTIMATOR Ed Lumbert
LOCATION: FERNALD
TASK NO.: APRJ5

PPE LEVEL	Plant 6 Water Transfer System	QTY	UNIT	MAN-HOURS Unit	MAN-HOURS Total	MAN-HOURS Rate	COST / UNIT Labor	COST / UNIT S/C	COST / UNIT Mat'l	COST / UNIT Equip	LABOR	S/C	MAT'L	EQUIP	TOTAL
	Purchase and installation of system to remove perched water & storm water.														
mC	3" Conduit, rgs	185	lf	0.250	84	$38.12			4.50		$3,219		$833		$4,052
mC	3" Conduit Fittings	1	ls	10.00	18	$38.12			400.00		$696		$400		$1,096
mC	4" Pipe	250	lf	0.430	196	$41.55			47.50		$8,155		$11,875		$20,030
mC	4" Pipe Fittings	1	ls	10.00	18	$41.55			500.00		$759		$500		$1,259
mC	Heat Trace System	250	lf	0.020	9	$41.55			7.35		$379		$1,838		$2,217
mC	Pump, 4" sive 7 1/2 hp 350 gpr	1	ea	10.00	18	$41.55			1,950		$759		$1,950		$2,709
mC	Steel Cover	10	ea	6.00	110	$38.12			1,125.00		$4,176		$11,250		$15,426
mC	Other misc. requirements as re	1	ls	80.00	80	$33.93			500.00		$2,714		$500		$3,214
mC	Complete Punch List items.	1	ls	80.00	80	$33.93			500.00		$2,714		$500		$3,214
mC	Other area requirements.	1	ls	80.00	80	$33.93			500.00		$2,714		$500		$3,214
	Plant 6 Water Transfer System	**1**	**LOT**		**694**	**$37.87**					**$26,290**		**$30,150**		**$56,440**

APPENDIX " A"

PROJECT: Upgrades
ESTIMATE NO IH-2001-05-004 R1
CLIENT: DOE
WBS NO.: 1.1.A.D

SITE SPECIFIC

EFFICIENCY / MULTIPLIER ANALYSIS

DATE: 02-Aug-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: APRJ5

PERCENT OF INFLUENCE ON CHART MANHOURS

	40%	50%	60%	70%	80%	90%	100%	105%	110%	% OF INFLUENCE	WT'D VALUE	PROD. RESULT
CRAFT SKILL (NOTE 1)	POOR			FAIR			STD	V.GOOD	EXCELLENT	100.0%	12.0%	0.12
CRAFT AVAIL.(NOTE 1)		POOR		FAIR			STD			100.0%	8.0%	0.08
CLIMATE (NOTE 2)	SEVERE	ICE/SNOW			RAIN		+40 TO +85			90.0%	20.0%	0.18
PLANT ELEVATION		OVER 10,000FT			5,000' TO 10,000 FT		UNDER 5,000 FT			100.0%	5.0%	0.05
WORK SPACE	<---- MULTIPLE SHIFTS-			200 SF	250 SF	300 SF	350 SF			100.0%	10.0%	0.1
WORK WEEK							4-10s / 5-8s			100.0%	15.0%	0.15
50 HOUR WORK WEEK	//// MULTIPLE-SHIFT ////			OVER 7 WEEKS	3 TO 7 WEEKS	UP TO 3 WEEKS						
60 HOUR WORK WEEK			OVER 7 WEEKS	3 TO 7 WEEKS	UP TO 3 WEEKS							
SHIFTWORK 2ND SHIFT 3RD SHIFT			 3RD SHIFT		 2ND SHIFT		OR ONE SHIFT ONLY			 100.0% 100.0%	 3.0% 5.0%	 0.03 0.05
PROJECT SIZE					400M MH AND UP	300M TO 400M MH	200M TO 300M MH	200M MH OR LESS		105.0%	4.0%	0.042
PLANT TYPE				REVAMP ONLY	REVAMP & NEW	NEW IN EXIST PLT	GRASS ROOTS			80.0%	8.0%	0.064
AREA/UNION INFLUENCE	STRONG		MILD		SOME		NONE			40.0%	10.0%	0.04
											100.0%	90.6%

NOTES.....
1. TURNOVER HAS BEEN CONSIDERED

2. FOR EXTERIOR WORK ONLY

EFFICIENCY (AS A % OFF CHART MANHOURS) 90.6%

MULTIPLIER - (TO BE APPLIED TO CHART M.H.'S TO OBTAIN SITE M.H.'S) 1.10

APPENDIX "B"

EFFICIENCY FACTORS

PROJECT Upgrades
ESTIMATE IH-2001-05-004 R1
CLIENT: DOE
WBS NO.: 1.1.A.D

DATE: ########
ESTIMATC Ed Lumbert
LOCATION FERNALD
TASK NO.: APRJ5

Fluor Fernald, Inc.

EXAMPLE:

STANDARD CHART MANHOURS =	NET	100
EFFICIENCY FACTORS:		
* SITE SPECIFIC (SEE APPENDIX A	10%	10.0
S/T = BASE UNIT MANHOURS		110
OVERTIME PRODUCTIVITY FACTOF	0.00%	0
(SEE DETAIL WORKSHEET BACK-UP)		110
* TASK SPECIFIC (confined space,	0.0%	0
high elevation, congestion, etc.)		110

* PPE SPECIFIC (Based on current data and estimating knowledge)

	PPE LEVEL											
	D		Mod.'D'		Mod. "C"		C		C+		B	
PRODUCTIVITY HOURS	MH's		MULTIPLIER	MH's	MULTIPLIER	MH's	MULTIPLIER	MH's	MULTIPLIER	MH's	MULTIPLIER	MH's
(AS A %) / ADD MH's	4.00%	4	28.00%	31	66.00%	73	74.00%	81	96.00%	106	110.00%	121
LTIPLIER)/TOTAL HRS	1.04	114.4	1.28	140.8	1.66	182.6	1.74	191.4	1.96	215.6	2.10	231
OTAL MULT. * SITE PRC	1.144		1.408		1.826		1.914		2.156		2.156	

NOTE : Use the Default Productivity Factor of 'mC' for working in a contaminated area if the Safety Level cannot be determined.

(SEE FD FERNALD ESTIMATING SERVICES REFERENCE MANUAL IM-6006 8.10)

Total hours worked in a specific PPE level divided by 10 hour working days = (PPE) ManDays to determine material cost of PPE's.
(SEE APPENDIX C - HEALTH PHYSICS)

	11.0	Man Days	14.0	Man Days	18.0	Man Days	19.0	Man Days	22.0	Man Days	23.0	Man Days

THESE EFFICIENCY FACTORS WERE APPLIED INDIVIDUALLY THROUGHOUT THE ESTIMATE AT A TASK SPECIFIC LEVEL, TO OBTAIN A MORE ACCURATE ACCOUNT OF OVERALL EFFICIENCY IMPACT DUE TO PPE REQUIREMENTS IN HANDLING CONTAMINATED AND HAZARDOUS WASTE.

APPENDIX "B"

EFFICIENCY FACTORS

PROJECT Upgrades
ESTIMATE IH-2001-05-004 R1
CLIENT: DOE
WBS NO.: 1.1.A.D

DATE: ########
ESTIMATCEd Lumbert
LOCATION FERNALD
TASK NO.: APRJ5

PPE MULTIPLIER DEVELOPEMENT

	D	mD	mC	C	C+	B
CREW SIZE & MAKE-I STANDARD	7	7	7	7	7	7
WORKER-BUDDY	0	0	0	0	0	0
SUPPORT TEAM	0	0	0	0	0	0
TOTAL CREW	7	7	7	7	7	7
CREW SIZE RATIO	1.00	1.00	1.00	1.00	1.00	1.00
AVAILABLE WORK TIME FACTOR	0.96	0.78	0.70	0.70	0.68	0.68
PPE LABOR PRODUCTIVITY FACTOR	1	1	0.86	0.82	0.75	0.70
NET PRODUCTIVITY RATIO	0.96	0.78	0.602	0.574	0.51	0.476
NET PRODUCTIVITY MULTIPLIER	**1.04**	**1.28**	**1.66**	**1.74**	**1.96**	**2.10**

These factors were based on Tables 6.1 and 6.2, Moderate Work Efforts, 66F to 85F temperature of 'Hazardous Waste Cost Control' by R.A.Selg.
Modifications were made to reflect a 10 hour work day and no buddy system or support team for levels D, mC and C.
The worker-buddy and support team members, if required, may be covered under Construction Mgmt. (Rad Techs).

AVAILABLE WORK TIME FACTOR		D	mD	mC	C	C+	B
TOTAL WORK MINUTI 4 - 10's		600	600	600	600	600	600
ADDITN'L.SITE SAFETY MEETINGS	QUANTITY	1	1	1	1	1	1
	MINUTES	25	25	25	25	25	25
TOTAL		25	25	25	25	25	25
PPE DON & DOFFING	QUANTITY	0	0	3	3	3	3
(ADJUST LEVEL D per WORK PLAN	MINUTES	0	0	15	15	20	20
TOTAL			0	45	45	60	60
WORK BREAKS	QUANTITY	N/A	2	2	2	2	2
(ADJUST LEVEL D per WORK PLAN	MINUTES	N/A	15	15	15	15	15
TOTAL			30	30	30	30	30
MOBILIZATION - ROUND TRIPS	QUANTITY	N/A	4	4	4	4	4
(ADJUST LEVEL D per WORK PLAN	MINUTES	N/A	15	15	15	15	15
TOTAL			60	60	60	60	60
COOLDOWNS PER DAY	QUANTITY	N/A	4	4	4	4	4
** (4 OUT OF 12 MONT 33.33%	MINUTES	N/A	15	15	15	15	15
TOTAL			20	20	20	20	20
AIR TANK REPLACEMENT	QUANTITY	N/A	N/A	N/A	N/A	N/A	N/A
	MINUTES	N/A	N/A	N/A	N/A	N/A	N/A
TOTAL							
AVAILABLE WORK TIME		575	465	420	420	405	405
AVAILABLE WORK TIME FACTOR		**0.96**	**0.78**	**0.7**	**0.7**	**0.68**	**0.68**

NOTE: Adjust 'Work Minutes per Day' basis to: 5 - 8's, or leave as 4 - 10's. Any other circumstances, over-ride the minutes per day.

** Assumption based on work performed in May, June, July & August, pro-rating cost over one year. Adjust % to individual circumstances.

APPENDIX "C"

HEALTH PHYSICS

PROJECT: Upgrades
ESTIMATE NO IH-2001-05-004 R1
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 02-Aug-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: APRJ5

PPE's - PERSONAL PROTECTIVE EQUIPMENT

DESCRIPTION	UNIT	UNIT COST	* NO. OF CHANGE OUTS PER WORKER PER DAY / Man Days (TOTAL HOURS worked in PPE's Div. by WORK HOURS/DAY)			
PPE LEVEL C / C+		$'s	*	MAN DAYS	MAT'L.$'s	LEVEL
LAUNDRY COST per CHANGE	SET	1.96	1	0	$0	C/B
TYVEK COVER-ALL w/HOOD & BOOTIES - DIS	EA	4.46	3	0	$0	C/B
TYVEK COVER-ALL w/HOOD & BOOTIES - DIS	EA	4.46	3	0	$0	C/B
GLOVE LINER - DISPOSABLE	PR	0.24	3	0	$0	C/B
GLOVE, LASTEX - DISPOSABLE	PR	0.26	3	0	$0	C/B
GLOVE, WORK - DISPOSABLE	PR	1.02	3	0	$0	C/B
APR CARTRIDGES - DISPOSABLE, CLEANING	PR	9.38	3	0	$0	C/B
SUB-TOTAL				0	$0	
				$/MD =	#DIV/0!	
PPE LEVEL mC						
)RESS w/ FACE SHIELD		$'s		MAN DAYS	MAT'L.$'s	LEVEL
LAUNDRY COST per CHANGE	SET	1.96	1	69	$135	mC
LT.WT. DISPOSABLE COVERALLS W/HOOD &	PR	4.46	3	69	$923	mC
GLOVE LINER - DISPOSABLE	PR	0.24	3	69	$50	mC
GLOVE, LASTEX - DISPOSABLE	PR	0.26	3	69	$54	mC
GLOVE, WORK - DISPOSABLE	PR	1.02	3	69	$211	mC
SUB-TOTAL				69	$1,373	mC
				$/MD =	$19.90	
PPE LEVEL D						
LAUNDRY COST per CHANGE	SET	1.96	1	0	$0	D

SUBCONTRACTOR REQUIRED PURCHASES	UNIT		QTY. PER WKR.	NO. OF WORKERS	MAT'L. $'s	LEVEL
RUBBER BOOT COVERS-(1)PR.PER WORKER	PR	12.70	6	0	$0	D/C/B
APR w/HALF FACE MASK - (1) PER WORKER	EA	22.30	6	0	$0	C
APR w/FULL FACE MASK - (1) PER WORKER	EA	174.00	6	0	$0	C
SCBA	EA	1894.00	2	0	$0	B
COOL VESTS	EA	137.50	6	0	$0	C/B
THERMO STRIPS	EA	50.00	6	0	$0	C/B
SUB-TOTAL					$0	C/B

Total PPE Matl $ and Laundry $	$1,400

(FORWARD TO PAGE 2 OF 2)

OTHER PPE's SUCH AS HARD HAT, SAFETY GLASSES/GOGGLES, STEEL TOED SAFETY SHOES, HEARING PROTECTION, ARE CONSIDERED THE SUBCONTRACTORS RESPONSIBILITY AND ARE COVERED IN HIS OVERHEAD EXPENSE. FD FERNALD SUPPLIED PPE's, SUCH AS COTTON COVERALLS, EXCHANGE OF RUBBER BOOT COVERS AND RESPIRATORS FOR CHANGEOUTS AND CLEANING OF SAME IS INCLUDED.

APPENDIX "C"

HEALTH PHYSICS

PROJECT: Upgrades
ESTIMATE NO IH-2001-05-004 R1
CLIENT: DOE
WBS NO.: 1.1.A.D

DATE: 02-Aug-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: APRJ5

--MEDICAL MONITORING --

MEDICAL - PHYSICAL and IN-VIVO MONITORING - LOST WORKER TIME for RAD II WORKERS ONLY

DESC. PHYSICAL (3hrs), IN-VIVO (1hr)	QTY	HRS	WKR	TOTAL HOURS	AVG. LABOR RATE	TOTAL LABOR $
BASELINE PHYSICALS	1	4	1	4	$37.88	$150
ANNUAL PHYSICALS	0	4	1	0	$37.88	$0
EXIT (TERMINATION) PHYSICALS (IN-VIVO)	1	1	1	1	$37.88	$40
SUB-TOTAL						$190

RADIATION IN-VITRO SURVEILLANCE - LOST WORKER TIME for RAD II WORKERS ONLY

DESC.	QTY	HRS	WKR	TOTAL HOURS	AVG. LABOR RATE	TOTAL LABOR $
BI-MONTHLY BIOASSAY	3	1	1	3	$37.88	$120
SUB-TOTAL						$120

RANDOM DRUG TESTING

	TESTS	HRS	TOTAL HRS	AVG. RATE	LABOR $'s	
	1	2	2	$37.88	$100	
NO. OF WKRS. TESTED	TESTING DAYS PER YR.	AVG. NO. OF TESTS PER DAY	CHANCE/ DAY FOR TEST	NO. OF WKRS. FOR THIS ESTIMATE	CHANCES /DAY FOR TEST for this PROJECT	CONSTR WORKING DAYS
2500	226	11	0.0044	1	0.0044	122

			LABOR $'s THRU SAFETY	LABOR $'s	
WORK DELAYS CAUSED BY MONITORING	1.0%		$35,000	$400	
				LABOR $'s	
WORK DELAYS CAUSED BY RAD CHECKING	1.0%		$35,000	$400	

	TOTAL LABOR	TOTAL MAT'L.	GRAND TOTAL
TOTAL HEALTH PHYSICS - FORWARD TO ESTIMATE SUMMARY SHEET	$1,200	$1,400	$2,600

ACTIVITY DURATIONS

PROJECT: Upgrades
ESTIMATE N IH-2001-05-004 R1
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 02-Aug-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: APRJ5

ACTIVITY	EST. DATE	START DATE	MID POINT	COMPL. DATE	ACTIVITY	DURATION
CONSTRUCTION:	12-May-01	14-May-01	20-Aug-01	26-Nov-01	6.4	MONTHS
					0	MONTHS
TOTAL					6.4	MONTHS

	DATE of EST. to MID-POINT ACTIVITY DURATION	
a.	3.3	MONTHS
b.	0	MONTHS

ACTIVITY	EST. DATE	START DATE	MID POINT	COMPL. DATE	ACTIVITY	DURATION
OPERATIONS					0	MONTHS

DATE of EST. to MID-POINT ACTIVITY DURATION	
0	MONTHS

ACTIVITY DURATION IS USED IN DETERMINING NUMBER of WORKERS for CERCLA/SAT TRAINING HOURS and HEALTH PHYSICS COSTS.

FLUOR GLOBAL SERVICES

Memorandum

To:	Lori Howard, MS44-0 Mike Hundley, MS49 Lyle Hampshire, MS44-0	Date:	May 07, 2001
Location:	Fernald	Reference:	N/A
From:	Ken Kepler, MS80-3	Fernald #:	M:OOTP:(PC/EST)2001-0032
Location:	Springdale	Client:	DOE DE-AC24-01OH20115
Extension:	648-6761	Subject:	PLANT 6 PERCHED WATER & STORM WATER TRANSFER

c: File Record Subject ESTIMATE C1-01-05-01
Tom Wagner, MS80-3

Attached are two (2) copies of the estimate for the PLANT 6 PERCHED WATER & STORM WATER TRANSFER.

To request any additional copies of this estimate or for any questions, please contact Tom Wagner on extension 6120.

KGK:TW:hmp
Attachment

ESTIMATE REVIEW FORM

PROJECT: Plt 6 Perched Water & Storm Water Transfer
ESTIMATE NO. C1010501
CLIENT: DOE
WBS NO.: 1.1.A.D

DATE: 03-May-01
ESTIMATOR: Wagner
LOCATION: Fernald
TASK NO.: APRJ

COMPLETE ESTIMATE PACKAGE YES _____ NO _____

REQUIRED DOCUMENTS _____

COMMENTS:

- Existing sump? or new? Stated
- Misc equip rental not required OK
- Detail 2/6 utilities and Est. Summery utilities are doubled. OK
- OH piping mounted on existing rack? BDE Yes, Stated

REVIEWERS SIGNATURE D Z Usborne DATE 5/2/01

RESOLUTION: _____

ESTIMATOR: _____ DATE _____

REVIEWER: _____ DATE _____

ESTIMATE REVIEW FORM

PROJECT: Plt 6 Perched Water & Storm Water Transfer
ESTIMATE NO. C1010501
CLIENT: DOE
WBS NO.: 1.1.A.D

DATE: 03-May-01
ESTIMATOR: Wagner
LOCATION: Fernald
TASK NO.: APRJ

OTHER REVIEWS:

① add totals to pg. 1 of 6 detail wksht - [signature] 5/7/01

REQUESTER _____ DATE _____

CAM if > $100,000 [signature] DATE 5/3/01

PROJ.MGR. if >$ 1M _____ DATE _____

ESTIMATING SERVICES TEAM COACH [signature] DATE 5/7/01

Fluor Fernald, Inc.

PROJECTS CONTROLS
ESTIMATING SERVICES

May 7, 2001

PROJECT DESCRIPTION: Plt 6 VOC Perched Water & Storm Water Transfer
WBS NUMBER: 1.1.A.D
PROJECT ENGINEER: Mike Hunley
ESTIMATOR: Tom Wagner
ESTIMATE NUMBER: C1010501

BASIS OF ESTIMATE

SUPPORTING DOCUMENTATION:

Verbal Scope	☒	P & ID's	☐	Work Plan	☐
Drawings	☐	Equipment List	☐	Site Walk	☐
Sketches	☐	Specifications	☐	Eng. Mtg.	☐
Flow Diagrams	☐	Written Scope	☒	Estimate	☐

TYPE OF ESTIMATE:

Change Proposal	☐	Government	☐
Plan/Feasibility	☐	Conceptual	☐
Construction	☐	Title I Design	☐
Budget	☒	Independent	☐

BASIS OF ESTIMATE:

Estimate the cost for construction of Plant 6 VOC Perched Water & Storm water transfer. Assume new electrical feed required from RIMIA area – pole mounted overhead service. Assume 4" cs piping overhead on existing pipe rack, heat traced / insulated 1000 lf to existing lift station.

Fluor Fernald, Inc.

PROJECTS CONTROLS
ESTIMATING SERVICES

May 7, 2001

PROJECT DESCRIPTION: Plt 6 VOC Perched Water & Storm Water Transfer
WBS NUMBER: 1.1.A.D
PROJECT ENGINEER: Mike Hunley
ESTIMATOR: Tom Wagner
ESTIMATE NUMBER: C1010501

ESTIMATE ASSUMPTIONS

EXECUTION:

- ☒ This project is to be performed on a 40-hour week, 10 hours a day.
- ☐ This project is to be performed on a 40-hour week, 8 hours a day.
- ☐ Premium time allowed.

WAGE RATES:

- ☒ Wage rates within this estimate are based on Project Labor Agreement rates, effective October 2000 and are considered FY01 dollars for estimating.
- ☐ Wage rates within this estimate are based on FF Support Contractor FSC 599 wage rates, effective October 1999 have been escalated 3% and are considered FY01 dollars for estimating.
- ☐ Wage rates within this estimate are based on FF FTE Planning Labor Rates FY01.

ENGINEERING:

- ☒ N/A
- ☐ Engineering dollars provided by the Project Engineer.
- ☐ Engineering dollars have been factored in at the standard 12% of the total direct and indirect field costs as per request of Project Engineer.

CONSTRUCTION MANAGEMENT:

- ☒ N/A
- ☐ Construction Management dollars provided by the Project Engineer.
- ☐ Construction Management dollars have been factored in at the standard 30% of the total direct and indirect field costs as per request of Project Engineer.

PROJECT MANAGEMENT:

- ☒ N/A
- ☐ Project Management dollars provided by the Project Engineer.
- ☐ Project Management dollars have been factored in at the standard 30% of the total direct and indirect field costs as per request of Project Engineer.

WASTE PROGRAM MANAGEMENT:

- ☒ N/A
- ☐ Waste Program Management dollars provided by the Project Engineer.

Fluor Fernald, Inc.

PROJECTS CONTROLS
ESTIMATING SERVICES

May 7, 2001

PROJECT DESCRIPTION: Plt 6 VOC Perched Water & Storm Water Transfer
WBS NUMBER: 1.1.A.D
PROJECT ENGINEER: Mike Hunley
ESTIMATOR: Tom Wagner
ESTIMATE NUMBER: C1010501

PRODUCTIVITY:

A productivity factor has been developed and applied to the unit man-hours derived from MEANS, Richardson, NECA, and or any other published estimating source. See attachment APPENDIX "A" and APPENDIX "B".

ESCALATION:

Escalation costs are excluded from the target estimate. The escalation costs are calculated within the Micro-Frame computer system according to the plan for rebaselining.

UNIT RATES:

Unit man-hours, equipment and material dollars are based on Richardson, MEANS, NECA, and or other published rates.

G & A (HO EXPENSE):

G & A are excluded from the target estimate. The G & A cost are calculated within the Micro-Frame computer system according to the plan for rebaselining.

HEALTH PHYSICS:

See attached APPENDIX "C".

RISK BUDGET:

N/A

Fluor Fernald, Inc.

PROJECTS CONTROLS
ESTIMATING SERVICES

May 7, 2001

PROJECT DESCRIPTION: Plt 6 VOC Perched Water & Storm Water Transfer
WBS NUMBER: 1.1.A.D
PROJECT ENGINEER: Mike Hunley
ESTIMATOR: Tom Wagner
ESTIMATE NUMBER: C1010501

ESTIMATE INCLUSIONS & EXCLUSIONS

INCLUSIONS:

- Premobilization & Mobilization.
- Demobilization.
- Labor hours.
- Material dollars.
- Equipment dollars.

EXCLUSIONS:

- Fire protection
- Dust control
- Premium time.
- Permits and fees.
- FF G & A (Home Office Expense).
- Construction Management.
- Any second tier subcontract costs.
- Project Management dollars.
- Waste Management dollars.

ESTIMATE SUMMARY SHEET

PROJECT: Plt 6 Perched Water & Storm Water
ESTIMATE #: C1010501
CLIENT: DOE
WBS #: 1.1.A.D

Fluor Fernald, Inc.

DATE: 07-May-01
ESTIMATOR: Wagner
LOCATION: Fernald
TASK NO.: APRJ

ITEM DESCRIPTION	M/H	RATE	LABOR $	S/C $	MAT'L $	EQUIP. $	TOTAL $
PREMOBILIZATION	80		$4,000				$4,000
MOBILIZATION	120		$2,700	$3,898	$2,000	$1,500	$10,098
ELECTRIC	528		$12,000		$7,600	$14,000	$33,600
PIPING	1,489		$38,900		$76,200	$1,800	$116,900
TESTING	320		$7,700				$7,700
DEMOBILIZATION	100		$2,400				$2,400
DIRECT FIELD COSTS TOTAL	**2,637**	**$25.67**	**$67,700**	**$3,898**	**$85,800**	**$17,300**	**$174,698**
SUPERVISION - CONTRACTOR	503		$11,420				$11,420
SMALL TOOLS & CONSUMABLES	-	-	-		$4,100		$4,100
MISC. EQUIP. RENTAL	-	-	-				
TEMPORARY FACILITIES		-					
TEMPORARY UTILITY HOOK-UP		-					
JOB CLEAN-UP	119	-	$3,000		$1,000		$4,000
PER DIEM / SUBSISTANCE	-	-	-				
HEALTH PHYS.	47	-	$1,200		$2,600		$3,800
ADDITIONAL AND JOB SPECIFIC TRAINING	16	-	$411				$411
GENERAL SITE WORKER TRAINING	266	-	$6,817				$6,817
PAYROLL BURDENS & BENEFITS	-	-	$51,600				$51,600
OVERHEAD & PROFIT	-	-	-	$51,400			$51,400
BOND	-	-	-	$4,000			$4,000
SALES TAX	-	-	-		$5,600	$1,000	$6,600
INDIRECT FIELD COSTS TOTAL	**950**		**$74,448**	**$55,400**	**$13,300**	**$1,000**	**$144,148**
DIRECT & INDIRECT FIELD COSTS TOTAL	**3,587**	**$39.63**	**$142,148**	**$59,298**	**$99,100**	**$18,300**	**$318,846**
TARGET ESTIMATE			**(FY 01 DOLLARS)**				**$318,846**

ESTIMATE PERFORMED BY ESTIMATING SERVICES

ESTIMATE SUMMARY SHEET

PROJECT: Plt 6 Perched Water & Storm Water Transfe
DATE: 07-May-01

ESTIMATE NO. C1010501
ESTIMATOR: Wagner

FACTORS

CLIENT: DOE
LOCATION: Fernald

WBS NO.: 1.1.A.D
TASK NO.: APRJ

FIXED PRICE $	LABOR $	S/C $	MAT'L. $	EQUIP. $	PPE $	TOTAL $
DFC DOLLARS	$67,700	$3,898	$85,800	$17,300	$2,600	$177,298
IFC COST FACTOR	2.0997	–	1.0594	1.0000	–	
BOND + OVERHEAD & PROFIT COST FACTOR	1.2103	1.2103	1.2103	1.2103	1.2103	
SALES TAX	-	-	1.0600	1.0600	1.0600	
DIRECT FIELD COST FACTOR =	**2.5412**	**1.2103**	**1.3592**	**1.2829**	**1.2829**	
BASE ESTIMATE $'s	$172,041	$4,718	$116,616	$22,194	$3,336	$318,904
BASE FACTOR W/ RISK	1.0000	1.0000	1.0000	1.0000	1.0000	
TARGET ESTIMATE FACTOR	**2.5412**	**1.2103**	**1.3592**	**1.2829**	**1.2829**	
FPS TARGET ESTIMATE (FY01 $)	$172,041	$4,718	$116,616	$22,194	$3,336	$318,904

NOTE:

If there are no DFC Equip. $, enter The IFC Equip. $'s into the direct field cost TOTAL and delete IFC Factor in G65.

ESTIMATE SUMMARY SHEET

PROJECT: Plt 6 Perched Water & Storm Water Transfe
DATE: 07-May-01
ESTIMATE NO. C1010501
Direct Field Cost
ESTIMATOR: Wagner
CLIENT: DOE
w / F A C T O R S
YES X | **NO**
LOCATION: Fernald
WBS NO.: 1.1.A.D
TASK NO.: APRJ

PAY ITEM NO.	DESCRIPTION	LABOR $	S/C $	MAT'L. $	EQUIP. $	PPE $	TOTAL $
		(ASSIGN OR PRORATE PPE MAT'L.$'s)–>>				2600	
	PREMOBILIZATION	4000				2600	
		$10,160				$3,340	$13,500
	MOBILIZATION	2700	3898	2000	1500		
		$6,860	$4,720	$2,720	$1,920		$16,220
	DEMOBILIZATION	2400					
		$6,100					$6,100
	ELECTRIC	12000		7600	14000		
		$30,490		$10,330	$17,960		$58,780
	PIPING	38900		76200	1800		
		$98,850		$103,570	$2,310		$204,730
	TESTING	7700					
		$19,570					$19,570

TOTAL DIRECT FIELD COSTS w/FACTORS **(FY01 DOLLARS)** **$318,900**

DETAIL ESTIMATE WORKSHEETS

PROJECT: Plt 6 Perched Water & Storm Water Transfer
ESTIMATE NO.: C1010501
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 08-May-01
ESTIMATOR: Wagner
LOCATION: Fernald
TASK NO.: APRJ

ITEM NO.	SUMMARY	QTY	UNIT	MAN-HOURS			COST / UNIT				LABOR	S/C	MAT'L	EQUIP	TOTAL
				Unit	Total	Rate	Labor	S/C	Mat'l	Equip					
	PREMOBILIZATION				80						$4,000				$4,000
	MOBILIZATION				120						$2,700	$3,898	$2,000	$1,500	$10,098
	DEMOBILIZATION				100						$2,400				$2,400
	ELECTRIC				528						$12,000		$7,600	$14,000	$33,600
	PIPING				1,489						$38,900		$76,200	$1,800	$116,900
	TESTING				320						$7,700				$7,700
	Subtotal Direct Cost	1	LOT		2,637	$25.67					$67,700	$3,898	$85,800	$17,300	$174,698

DETAIL ESTIMATE WORKSHEETS

PROJECT: Plt 6 Perched Water & Storm Water Transfer
ESTIMATE NO.: C1010501
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 08-May-01
ESTIMATOR: Wagner
LOCATION: Fernald
TASK NO.: APRJ

ITEM NO.		QTY	UNIT	MAN-HOURS Unit	MAN-HOURS Total	MAN-HOURS Rate	COST/UNIT Labor	COST/UNIT S/C	COST/UNIT Mat'l	COST/UNIT Equip	LABOR	S/C	MAT'L	EQUIP	TOTAL
	PREMOBILIZATION														
	Insurance Certificates, List of Sub-Tier Contractors Procurement Documents, Safe Work Plans, QA/QC Plan, Project Execution Plan, Construction and Engineering Documentation, Acceptable baseline Schedules														
	Duration 2 wks	1	LS	40.0	80	50.00					$4,000				$4,000
	MOBILIZATION														
	S/C Office Trailer	3	mo					300.00				$898			$898
	Survey and Engineering Controls	1	LS					3,000.00	500.00	500.00		$3,000	$500	$500	$4,000
D	Install Utilities	1	LS	40.0	40	22.69			1,000.00	500.00	$900		$1,000	$500	$2,400
D	Other misc. requirements as required.	1	LS	80.0	80	22.69			500.00	500.00	$1,800		$500	$500	$2,800
	Total				120						$2,700	$3,898	$2,000	$1,500	$10,098
	DEMOBILIZATION														
D	Complete Punch List items.	1	LS	20.0	20	22.69					$500				$500
D	Remove Trailer and Change Facilities.	1	LS	20.0	20	22.69					$500				$500
D	Remove all Utilities.	1	LS	20.0	20	22.69					$500				$500
mC	Decontaminate Equipment.	1	LS	10.0	10	22.69					$200				$200
D	Loadout contractors equipment.	1	LS	20.0	20	22.69					$500				$500
D	Other area requirements.	1	LS	10.0	10	22.69					$200				$200
	Total				100						$2,400				$2,400

DETAIL ESTIMATE WORKSHEETS

PROJECT: Plt 6 Perched Water & Storm Water Transfer
ESTIMATE NO.: C1010501
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 08-May-01
ESTIMATOR: Wagner
LOCATION: Fernald
TASK NO.: APRJ

ITEM NO.	ELECTRIC	QTY	UNIT	MAN-HOURS			COST/UNIT				LABOR	S/C	MAT'L	EQUIP	TOTAL
				Unit	Total	Rate	Labor	S/C	Mat'l	Equip					
D	Auger Truck	100	hr	1.0	114	22.66				75.00	$2,590			$7,500	$10,090
D	Bucket Truck	80	hr	1.0	92	22.66				75.00	$2,070			$6,000	$8,070
D	45' Class II pole	4	ea	12.1	55	22.66			373.20		$1,250		$1,493		$2,743
D	#1/0 AL Power cable	8	clf	2.0	18	22.66			42.62		$410		$341		$751
D	Ground Cu wire	600	lf	0.05	34	22.66			0.44		$780		$264		$1,044
D	Messenger attachments	4	ea	3.3	15	22.66			69.75		$340		$279		$619
D	Guy wire typical	4	ea	5.0	23	22.66					$520				$520
D	Trenching of underground cable		lf	0.02		22.66				0.23					
D	Underground utility duct w/ cable		clf	4.5		22.66			117.62						
D	Red concrete encasement		cy	0.30		22.66			80.00						
D	Backfill including compaction		lf	0.02		22.66				0.13					
D	Disconnect switch 480v 3ph	1	ea	8.0	9	22.66			250.00	50.00	$210		$250	$50	$510
D	Combo starter NEMA 1 enclosure	1	ea	10.0	11	22.66			600.00	50.00	$260		$600	$50	$910
D	Transformer 13.2KVA 480v IPH pole mounted	3	ea	20.0	69	22.66			900.00	100.00	$1,560		$2,700	$300	$4,560
D	Variable speed AC drive 40hp 480v 60Hz		ea	23.0		22.66			8,000.00	50.00					
D	Transformer Mini power 15KVA 480v 3ph		ea	16.0		22.66			3,150.00	50.00					
D	Fuses	4	ea	0.40	2	22.66			100.00		$40		$400		$440
D	3" conduit rgs	80	lf	0.25	23	22.66			4.50	0.50	$520		$360	$40	$920
D	3" conduit fittings	1	ls	10.0	11	22.66			400.00		$260		$400		$660
D	1 1/2" conduit rgs	50	lf	0.10	6	22.66			1.70	0.40	$130		$85	$20	$235
D	1 1/2" conduit fittings	1	ls	8.0	9	22.66			100.00		$210		$100		$310
D	3/4" conduit rgs	150	lf	0.06	10	22.66			0.70	0.10	$230		$105	$20	$355
D	3/4" conduit fittings	1	ls	20.0	23	22.66			190.00		$520		$190		$710
D	3/4" liquid tight	25	lf	0.08	2	22.66			2.50		$50		$63		$113
	Subtotal Direct Cost	1	LOT		528	$22.74					12,000		7,600	14,000	$33,600

DETAIL ESTIMATE WORKSHEETS

PROJECT: Plt 6 Perched Water & Storm Water Transfer
ESTIMATE NO.: C1010501
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 08-May-01
ESTIMATOR: Wagner
LOCATION: Fernald
TASK NO.: APRJ

ITEM NO.	PIPING	QTY	UNIT	MAN-HOURS Unit	MAN-HOURS Total	MAN-HOURS Rate	COST/UNIT Labor	COST/UNIT S/C	COST/UNIT Mat'l	COST/UNIT Equip	LABOR	S/C	MAT'L	EQUIP	TOTAL
	Piping														
mC	4" pipe	1000	lf	0.43	789	26.40			47.50	1.25	$20,820		$47,500	$1,250	$69,570
mC	4" 90 degree ell cs sch 40	10	ea	2.7	49	26.40			9.63		$1,300		$100		$1,400
mC	4" tee cs shd 40	1	ea	4.1	7	26.40			15.72		$200		$20		$220
mC	4" cap cs	1	ea	1.3	2	26.40			8.00		$60		$10		$70
mC	Gate valves 4"	4	ea	5.3	39	26.40			435		$1,030		$1,740		$2,770
mC	Heat trace system	1000	lf	0.02	27	22.66			7.35	0.50	$620		$7,350	$500	$8,470
mC	Thermostat/contactor combination	10	ea	3.6	66	22.66			525.00		$1,490		$5,250		$6,740
mC	Snap band, clamp	100	ea	0.08	15	22.66					$330				$330
mC	end seal kit	10	ea	0.50	9	26.40			9.00		$240		$90		$330
mC	tee kit w/ junction	10	ea	1.5	27	26.40			82.00		$720		$820		$1,540
mC	splice kit	10	ea	0.90	16	26.40			51.00		$430		$510		$940
mC	power connection kit	10	ea	1.0	18	26.40			69.00		$480		$690		$1,170
mC	Pipe insulation	1000	lf	0.20	365	26.40			6.55		$9,640		$6,550		$16,190
mC	Sump pump 1750rpm, 400gpm, 30hp	1	ea	32.0	58	26.40			5535.00		$1,540		$5,540		$7,080
	Subtotal Direct Cost	1	LOT		1,489	$26.12					38,900		76,200	1,800	$116,900

DETAIL ESTIMATE WORKSHEETS

PROJECT: Plt 6 Perched Water & Storm Water Transfer
ESTIMATE NO.: C1010501
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 08-May-01
ESTIMATOR: Wagner
LOCATION: Fernald
TASK NO.: APRJ

ITEM NO.	TESTING	QTY	UNIT	MAN-HOURS			COST/UNIT				LABOR	S/C	MAT'L	EQUIP	TOTAL
				Unit	Total	Rate	Labor	S/C	Mat'l	Equip					
D	HYDROSTATIC TESTING	1	ls	100.0	114	$26.40					$3,020				$3,020
D	ELECTRICAL TESTING	1	ls	100.0	114	$22.66					$2,590				$2,590
D	ACCEPTANCE TEST	1	ls	80.0	92	$22.66					$2,070				$2,070
	Subtotal Direct Cost	1	LOT		320	$24.04					7,700				$7,700

DETAIL ESTIMATE WORKSHEETS

PROJECT: Plt 6 Perched Water & Storm Water Transfer
ESTIMATE NO.: C1010501
CLIENT: DOE
WBS NO.: 1.1.A.D

Fluor Fernald, Inc.

DATE: 08-May-01
ESTIMATOR: Wagner
LOCATION: Fernald
TASK NO.: APRJ

ITEM NO.		QTY	UNIT	MAN-HOURS Unit	MAN-HOURS Total	MAN-HOURS Rate	COST/UNIT Labor	COST/UNIT S/C	COST/UNIT Mat'l	COST/UNIT Equip	LABOR	S/C	MAT'L	EQUIP	TOTAL
	Project Staffing														
		Each													
	1. Project Manager		hr	1		45.19									
	2. Project Superintendent	0.25	126	hr	1	126	31.92					$4,010			$4,010
	3. Project Engineer	0.25	126	hr	1	126	20.71					$2,600			$2,600
	4. Safety Engineer	0.25	126	hr	1	126	19.75					$2,480			$2,480
	5. QA/QC Engineer	0.25	126	hr	1	126	18.51					$2,330			$2,330
	6. Office Administration			hr			15.75								
	7. Contract Administration/ Scheduler			hr			27.10								
	8. Clerical			hr			14.00								
	TOTAL					503	22.71					$11,420			$11,420

EFFICIENCY FACTORS

PROJECT: Plt 6 Perched Water & Storm Water Transfer
ESTIMATE NO. C1010501
CLIENT: DOE
WBS NO.: 1.1.A.D

DATE: 13-Sep-01
ESTIMATOR: Wagner
LOCATION: Fernald
TASK NO.: APRJ

Fluor Fernald, Inc.

EXAMPLE:

STANDARD CHART MANHOURS =	NET	100
EFFICIENCY FACTORS:		
* SITE SPECIFIC (SEE APPENDIX A)	10%	10.0
S/T = BASE UNIT MANHOURS		110
OVERTIME PRODUCTIVITY FACTOR	0.00%	0
(SEE DETAIL WORKSHEET BACK-UP)		110
* TASK SPECIFIC (confined space,	0.0%	0
high elevation, congestion, etc.)		110

* PPE SPECIFIC (Based on current data and estimating knowledge)

	PPE LEVEL									
	D		Mod.'D'		Mod. "C"		C		C+	
PRODUCTIVITY HOURS		MH's	MULTIPLIER	MH's	MULTIPLIER	MH's	MULTIPLIER	MH's	MULTIPLIER	MH's
(AS A %) / ADD MH's	4.00%	4	28.00%	31	66.00%	73	74.00%	81	96.00%	106
(AS A MULTIPLIER)/TOTAL HRS	1.04	114.4	1.28	140.8	1.66	182.6	1.74	191.4	1.96	215.6
TOTAL MULTIPLIER w/SITE PROD.	1.144		1.408		1.826		1.914		2.156	

NOTE : Use the Default Productivity Factor of 'mC' for working in a contaminated area if the Safety Level cannot be determined.

(SEE FD FERNALD ESTIMATING SERVICES REFERENCE MANUAL IM-6006 8.10)

Total hours worked in a specific PPE level divided by 10 hour working days = (PPE) ManDays to determine material cost of PPE's. (SEE APPENDIX C - HEALTH PHYSICS)

11.0	Man Days	14.0	Man Days	18.0	Man Days	19.0	Man Days	22.0	Man Days

THESE EFFICIENCY FACTORS WERE APPLIED INDIVIDUALLY THROUGHOUT THE ESTIMATE AT A TASK SPECIFIC LEVEL, TO OBTAIN A MORE ACCURATE ACCOUNT OF OVERALL EFFICIENCY IMPACT DUE TO PPE REQUIREMENTS IN HANDLING CONTAMINATED AND HAZARDOUS WASTE.

APPENDIX "B"

EFFICIENCY FACTORS

PROJECT: Pit 6 Perched Water & Storm Water Transfer
ESTIMATE NO. C1010501
CLIENT: DOE
WBS NO.: 1.1.A.D

DATE: 07-May-01
ESTIMATOR: Wagner
LOCATION: Fernald
TASK NO.: APRJ

PPE MULTIPLIER DEVELOPEMENT

		D	mD	mC	C	C+
CREW SIZE & MAKE-UP	STANDARD	7	7	7	7	7
	WORKER-BUDDY	0	0	0	0	0
	SUPPORT TEAM	0	0	0	0	0
	TOTAL CREW	7	7	7	7	7
CREW SIZE RATIO		1.00	1.00	1.00	1.00	1.00
AVAILABLE WORK TIME FACTOR		0.96	0.78	0.7	0.7	0.68
PPE LABOR PRODUCTIVITY FACTOR		1	1	0.86	0.82	0.75
NET PRODUCTIVITY RATIO		0.96	0.78	0.602	0.574	0.51
NET PRODUCTIVITY MULTIPLIER		**1.04**	**1.28**	**1.66**	**1.74**	**1.96**

These factors were based on Tables 6.1 and 6.2, Moderate Work Efforts, 66F to 85F temperature of 'Hazardous Waste Cost Control' by R.A.Selg.
Modifications were made to reflect a 10 hour work day and no buddy system or support team for levels D, mC and C.
The worker-buddy and support team members, if required, may be covered under Construction Mgmt. (Rad Techs).

AVAILABLE WORK TIME FACTOR		D	mD	mC	C	C+
TOTAL WORK MINUTES per [4 - 10's		600	600	600	600	600
ADDITN'L.SITE SAFETY MEETINGS NOT INCLD. IN BAS	QUANTITY	1	1	1	1	1
	MINUTES	25	25	25	25	25
TOTAL		25	25	25	25	25
PPE DON & DOFFING	QUANTITY	0	0	3	3	3
(ADJUST LEVEL D per WORK PLAN)	MINUTES	0	0	15	15	20
TOTAL			0	45	45	60
WORK BREAKS	QUANTITY	N/A	2	2	2	2
(ADJUST LEVEL D per WORK PLAN)	MINUTES	N/A	15	15	15	15
TOTAL			30	30	30	30
MOBILIZATION - ROUND TRIPS	QUANTITY	N/A	4	4	4	4
(ADJUST LEVEL D per WORK PLAN)	MINUTES	N/A	15	15	15	15
TOTAL			60	60	60	60
COOLDOWNS PER DAY	QUANTITY	N/A	4	4	4	4
** (4 OUT OF 12 MONTHS) 33.33%	MINUTES	N/A	15	15	15	15
TOTAL			20	20	20	20
AIR TANK REPLACEMENT	QUANTITY	N/A	N/A	N/A	N/A	N/A
	MINUTES	N/A	N/A	N/A	N/A	N/A
TOTAL						
AVAILABLE WORK TIME		575	465	420	420	405
AVAILABLE WORK TIME FACTOR		**0.96**	**0.78**	**0.7**	**0.7**	**0.68**

NOTE: Adjust 'Work Minutes per Day' basis to: 5 - 8's, or leave as 4 - 10's . Any other circumstances, over-ride the minutes per day.

** Assumption based on work performed in May, June, July & August, pro-rating cost over one year. Adjust % to individual circumstances.

APPENDIX "C"

HEALTH PHYSICS

PROJECT: Plt 6 Perched Water & Storm Water Transfer
ESTIMATE NO. C1010501
CLIENT: DOE
WBS NO.: 1.1.A.D

DATE: 07-May-01
ESTIMATOR: Wagner
LOCATION: Fernald
TASK NO.: APRJ

Fluor Fernald, Inc.

PPE"s - PERSONAL PROTECTIVE EQUIPMENT

DESCRIPTION	UNIT	UNIT COST	* NO. OF CHANGE OUTS PER WORKER PER DAY Man Days (TOTAL HOURS worked in PPE's Div. by WORK HOURS / DAY)				
PPE LEVEL C / C+ / B : F/HF MASK w/RESP.&CART.			*	MAN DAYS	MAT'L.$'s	PPE LEVEL	
TYVEK COVER-ALL w/HOOD & BOOTIES - DISPOSABLE	EA	$4.46	3	0	$0	C / C+	
TYVEK COVER-ALL w/HOOD & BOOTIES - DISPOSABLE	EA	$4.46	3	0	$0	C / C+	(DOUBLE PPE)
GLOVE LINER - DISPOSABLE	PR	$0.24	3	0	$0	C / C+	
GLOVE, LASTEX - DISPOSABLE	PR	$0.26	3	0	$0	C / C+	
GLOVE, WORK - DISPOSABLE	PR	$1.02	3	0	$0	C / C+	
APR CARTRIDGES - DISPOSABLE	PR	$6.98	3	0	$0	C / C+	
SUB-TOTAL		$17.42	3		$0		
				$/MD =	$0.00		

PPE LEVEL mC : FULL DRESS w/ FACE SHIELD				MAN DAYS	MAT'L.$'s	PPE LEVEL
LT.WT. DISPOSABLE COVERALLS W/HOOD & BOOTIE	PR	$4.46	3	144	$1,928	mC
GLOVE LINER - DISPOSABLE	PR	$0.24	3	144	$104	mC
GLOVE, LASTEX - DISPOSABLE	PR	$0.26	3	144	$112	mC
GLOVE, WORK - DISPOSABLE	PR	$1.02	3	144	$441	mC
SUB-TOTAL		$5.98	3		$2,585	
				$/MD =	$17.94	

SUBCONTRACTOR REQUIRED PURCHASES			QTY. PER WKR.	NO. OF WORKERS	MAT'L.$'s	PPE LEVEL
RUBBER BOOT COVERS-(1)PR.PER WORKER	PR	$12.70	6	0	$0	D/C/B
APR w/HALF FACE MASK - (1) PER WORKER	EA	$22.30	6	0	$0	C
APR w/FULL FACE MASK - (1) PER WORKER	EA	$174.00	6	0	$0	C
SCBA	EA	$1,894.00	2	0	$0	B
COOL VESTS	EA	$137.50	6	0	$0	C/B
THERMO STRIPS	EA	$50.00	6	0	$0	C/B
SUB-TOTAL					$0	

	MAT'L.$'s
TOTAL PPE's =	$2,600

(FORWARD TO PAGE 2 OF 2)

OTHER PPE's SUCH AS HARD HAT, SAFETY GLASSES/GOGGLES, STEEL TOED SAFETY SHOES, HEARING PROTECTION, ARE CONSIDERED THE SUBCONTRACTORS RESPONSIBILITY AND ARE COVERED IN HIS OVERHEAD EXPENSE.
COSTS OF FD FERNALD SUPPLIED PPE's, SUCH AS COTTON COVERALLS, EXCHANGE OF RUBBER BOOT COVERS AND RESPIRATORS FOR CHANGEOUTS AND CLEANING OF SAME IS INCURRED BY FD FERNALD AND COSTS ARE NOT INCLUDED AS PART OF PROJECT COSTS AT THIS TIME.

APPENDIX "C"

HEALTH PHYSICS

PROJECT: Plt 6 Perched Water & Storm Water Transfer
ESTIMATE NO. C1010501
CLIENT: DOE
WBS NO.: 1.1.A.D

DATE: 07-May-01
ESTIMATOR: Wagner
LOCATION: Fernald
TASK NO.: APRJ

--MEDICAL MONITORING --

MEDICAL - PHYSICAL and IN-VIVO MONITORING - LOST WORKER TIME for RAD II WORKERS ONLY

DESCRIPTION PHYSICAL (3hrs), IN-VIVO (1hr)	QTY	HRS	WKR	TOTAL HOURS	AVG. LABOR RATE	TOTAL LABOR $
BASELINE PHYSICALS	1	4	6.639	27	$25.67	$680
ANNUAL PHYSICALS	0	4	6.639	0	$25.67	$0
EXIT (TERMINATION) PHYSICALS (IN-VIVO)	1	1	6.639	7	$25.67	$170
SUB-TOTAL						$850

RADIATION IN-VITRO SURVEILLANCE - LOST WORKER TIME for RAD II WORKERS ONLY

DESCRIPTION	QTY	HRS	WKR	TOTAL HOURS	AVG. LABOR RATE	TOTAL LABOR $
BI-MONTHLY BIOASSAY	1	1	6.639	10	$25.67	$260
SUB-TOTAL						$260

RANDOM DRUG TESTING

	TESTS	HRS	TOTAL HOURS	AVG. RATE	LABOR $'s
	2	2	4	$25.67	$100

NO. OF WKRS. TESTED	TESTING DAYS PER YR.	AVG. NO. OF TESTS PER DAY	CHANCE/ DAY FOR TEST	NO. OF WKRS. FOR THIS ESTIMATE	CHANCES /DAY FOR TEST FOR PROJECT	CONSTR WORKING DAYS
2340	226	10	0.0042735	8	0.0342	57

		LABOR $'s THRU SAFETY	LABOR $'s
WORK DELAYS CAUSED BY MONITORING	0.0%	$82,120	$0
			LABOR $'s
WORK DELAYS CAUSED BY RAD CHECKING	0.0%	$82,120	$0

	TOTAL LABOR	TOTAL MAT'L.	GRAND TOTAL
TOTAL HEALTH PHYSICS	$1,200	$2,600	$3,800

(FORWARD TO ESTIMATE SUMMARY SHEET)

ACTIVITY DURATIONS

Fluor Fernald, Inc.

PROJECT: Plt 6 Perched Water & Storm Water Transfer
ESTIMATE NO. C1010501
CLIENT: DOE
WBS NO.: 1.1.A.D

DATE: 07-May-01
ESTIMATOR: Wagner
LOCATION: Fernald
TASK NO.: APRJ

ACTIVITY	EST. DATE	START DATE	MID POINT	COMPL. DATE	ACTIVITY	DURATION
CONSTRUCTION:	29-Jan-01	01-Apr-02	16-May-02	01-Jul-02	3.0	MONTHS
					0	MONTHS
TOTAL					3.0	MONTHS

	DATE of EST. to MID-POINT ACTIVITY DURATION	
a.	15.5	MONTHS
b.	0	MONTHS

ACTIVITY	EST. DATE	START DATE	MID POINT	COMPL. DATE	ACTIVITY	DURATION
OPERATIONS					0	MONTHS

DATE of EST. to MID-POINT ACTIVITY DURATION	
0	MONTHS

ACTIVITY DURATION IS USED IN DETERMINING NUMBER of WORKERS for CERCLA/SAT TRAINING HOURS and HEALTH PHYSICS COSTS.

APPENDIX "E"

TRAINING

PROJECT:	Plt 6 Perched Water & Storm Water Transfer	DATE:	07-May-01
ESTIMATE #:	C1010501	ESTIMATOR:	Wagner
CLIENT:	DOE	LOCATION:	Fernald
WBS #:	1.1.A.D	TASK #:	APRJ

Fluor Fernald, Inc.

Site Access Training Requirements (RM-0055 Rev. 1 Effective: 09/30/99)

Training Requirements	Non-Hazardous	Occasional Site Worker	General Site Worker		
Access Area	Administrative Support Area	Controlled Area	Contamination Compound	Frequency	
	8 Hour	24 Hour Hazwoper	40 Hour Hazwoper		
General Employee Training	X	X	X	Annually	
Site Worker Training		X	X	One Time	
Rad. Worker I		X		Biennially	
Rad. Worker II			X	Biennially	
Respirator Training *			X	Annually	
Respirator Fit Testing *			X	Annually	
Supervised Field Experience	0 HR	8 HR	24 HR	One time →	*On the Job*
Site Worker Refresher		X	X	Annually ⇨	4 Hour
Rad. Worker I Retraining		X		Every 2 years ⇨	4 Hour
Rad. Worker II Retraining			X	Every 2 years ⇨	8 Hour

Additional Training	HRS	No. of Workers	Total Hours
Job Specific Training =	2	7	14
Fire Watch Training =	1	2	2
Lead Worker Training =	4	0	0
Lock out / Tag out Training =	8	0	0
Rigging Training =	24	0	0
Scaffold Training =	16	0	0

DURATION 3 Month(s)

Average Rate $ 25.67

Number of General Site Worker(s)	7	General Site Worker Training Cost	$6,817
Number of Occasional Site Worker(s)	0	Occasional Site Training Cost	$0
Number of Non-Hazardous Worker(s)		Non-Hazardous Training Cost	$0
		Additional Training Cost	$411
Total Training Hours	282	Total Training Cost =	$7,228

* = All employees classified as General Site Worker must initially take respirator training. The annual requirement for the repeat of training and the fit test frequency requirements are only needed by those employees that are required to wear a respirator.

COST IMPACT MATRIX SHEET

Estimate No.: C1010501
Project: Pit 6 Perched Water & Storm Water Transfer
Client: DOE
WBS: 1.1.A.D

Date: 03-May-01
Estimator: Wagner
Location: Fernald
TASK NO.: APRJ

Fluor Fernald, Inc.

Base Estimate Total	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
	PREMOBILIZATION									
$318,900	LABOR $		S/C $		MAT'L. $		EQUIP. $		PPE $	
Cost Drivers	Base $	$10,160	Base $	$0	Base $	$0	Base $	$0	Base $	$3,340
	Low	High	Low	High	Low	High	Low	High	Low	High
Productivity/labor										
Material Pricing										
Equipment Rental										
Subcontract $'s										
Quantity Variation										
Contamination										
Environmental										
Schedule										
Project Definition	-30%	50%							-30%	50%
Range - %	-30%	50%	0%	0%	0%	0%	0%	0%	-30%	50%
Range - $	$7,112	$15,240	$0	$0	$0	$0	$0	$0	$2,338	$5,010
Distribution	U								U	
Correlation Rank										

[redacted]	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
	MOBILIZATION									
	LABOR $		S/C $		MAT'L. $		EQUIP. $		PPE $	
Cost Drivers	Base $	$6,860	Base $	$4,720	Base $	$2,720	Base $	$1,920	Base $	$0
	Low	High	Low	High	Low	High	Low	High	Low	High
Productivity/labor										
Material Pricing										
Equipment Rental										
Subcontract $'s										
Quantity Variation										
Contamination										
Environmental										
Schedule										
Project Definition	-20%	50%	-20%	50%	-20%	50%	-20%	50%		
Range - %	-20%	50%	-20%	50%	-20%	50%	-20%	50%	0%	0%
Range - $	$5,488	$10,290	$3,776	$7,080	$2,176	$4,080	$1,536	$2,880	$0	$0
Distribution	U		U		U		U			
Correlation Rank										

Analyst:

Client:

CONTRACTOR - Stated in FY00 DOLLARS

E:\estimate\baseline 2001\pit6 perched water storm water\pit 6 perched water storm water transfer.xls

COST IMPACT MATRIX SHEET

Estimate No.: C1010501
Project: Plt 6 Perched Water & Storm Water Transfer
Client: DOE
WBS: 1.1.A.D

Date: 07-May-01
Estimator: Wagner
Location: Fernald
TASK NO.: APRJ

Fluor Fernald, Inc.

Base Estimate Total	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
$318,900	LABOR $		S/C $		PREMOBILIZATION MAT'L. $		EQUIP. $		PPE $	
Cost Drivers	Base $	$10,160	Base $	$0	Base $	$0	Base $	$0	Base $	$3,340
	Low	High	Low	High	Low	High	Low	High	Low	High
Productivity/labor										
Material Pricing										
Equipment Rental										
Subcontract $'s										
Quantity Variation										
Contamination										
Environmental										
Schedule										
Project Definition	-30%	50%								
Range - %	-30%	50%	0%	0%	0%	0%	0%	0%	-30%	50%
Range - $	$7,112	$15,240	$0	$0	$0	$0	$0	$0	-30%	50%
Distribution	U								$2,338	$5,010
Correlation Rank									U	

	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
	LABOR $		S/C $		MOBILIZATION MAT'L. $		EQUIP. $		PPE $	
Cost Drivers	Base $	$6,860	Base $	$4,720	Base $	$2,720	Base $	$1,920	Base $	$0
	Low	High	Low	High	Low	High	Low	High	Low	High
Productivity/labor										
Material Pricing										
Equipment Rental										
Subcontract $'s										
Quantity Variation										
Contamination										
Environmental										
Schedule										
Project Definition	-20%	50%	-20%	50%	-20%	50%	-20%	50%		
Range - %	-20%	50%	-20%	50%	-20%	50%	-20%	50%	0%	0%
Range - $	$5,488	$10,290	$3,776	$7,080	$2,176	$4,080	$1,536	$2,880	$0	$0
Distribution	U		U		U		U			
Correlation Rank										

Analyst: _____

Client: _____

COST IMPACT MATRIX SHEET

Estimate No.: C1010501
Project: Plt 6 Perched Water & Storm Water Transfer
Client: DOE
WBS: 1.1.A.D

Date: 07-May-01
Estimator: Wagner
Location: Fernald
TASK NO.: APRJ

Fluor Fernald, Inc.

	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
	LABOR $		S/C $		DEMOBILIZATION MAT'L. $		EQUIP. $		PPE $	
Cost Drivers	Base $ Low	$6,100 High	Base $ Low	$0 High	Base $ Low	$0 High	Base $ Low	$0 High	Base $ Low	$0 High
Productivity/labor										
Material Pricing										
Equipment Rental										
Subcontract $'s										
Quantity Variation										
Contamination										
Environmental										
Schedule										
Project Definition	-40%	60%								
Range - %	-40%	60%	0%	0%	0%	0%	0%	0%	0%	0%
Range - $	$3,660	$9,760	$0	$0	$0	$0	$0	$0	$0	$0
Distribution	U									
Correlation Rank										

	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
	LABOR $		S/C $		ELECTRIC MAT'L. $		EQUIP. $		PPE $	
Cost Drivers	Base $ Low	$30,490 High	Base $ Low	$0 High	Base $ Low	$10,330 High	Base $ Low	$17,960 High	Base $ Low	$0 High
Productivity/labor	-10%	25%								
Material Pricing					-10%	25%				
Equipment Rental							-10%	25%		
Subcontract $'s										
Quantity Variation										
Contamination										
Environmental										
Schedule										
Project Definition	-10%	25%			-10%	25%	-10%	25%		
Range - %	-20%	50%	0%	0%	-20%	50%	-20%	50%	0%	0%
Range - $	$24,392	$45,735	$0	$0	$8,264	$15,495	$14,368	$26,940	$0	$0
Distribution	T				T		T			
Correlation Rank										

Analyst: _____

Client: _____

COST IMPACT MATRIX SHEET

Estimate No.: C1010501
Project: Plt 6 Perched Water & Storm Water Transfer
Client: DOE
WBS: 1.1.A.D

Date: 07-May-01
Estimator: Wagner
Location: Fernald
TASK NO.: APRJ

Fluor Fernald, Inc.

	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
	LABOR $		S/C $		PIPING MAT'L. $		EQUIP. $		PPE $	
Cost Drivers	Base $	$98,850	Base $	$0	Base $	$103,570	Base $	$2,310	Base $	$0
	Low	High	Low	High	Low	High	Low	High	Low	High
Productivity/labor	-5%	25%								
Material Pricing					-10%	25%				
Equipment Rental							-10%	25%		
Subcontract $'s										
Quantity Variation										
Contamination										
Environmental										
Schedule										
Project Definition	-5%	25%								
Range - %	-10%	50%	0%	0%	-10%	25%	-10%	25%		
Range - $	$88,965	$148,275	$0	$0	-20%	50%	-20%	50%	0%	0%
Distribution	T				$82,856	$155,355	$1,848	$3,465	$0	$0
Correlation Rank					T		T			

	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
	LABOR $		S/C $		TESTING MAT'L. $		EQUIP. $		PPE $	
Cost Drivers	Base $	$19,570	Base $	$0	Base $	$0	Base $	$0	Base $	$0
	Low	High	Low	High	Low	High	Low	High	Low	High
Productivity/labor	-5%	25%								
Material Pricing										
Equipment Rental										
Subcontract $'s										
Quantity Variation										
Contamination										
Environmental										
Schedule										
Project Definition	-5%	25%								
Range - %	-10%	50%	0%	0%	0%	0%	0%	0%	0%	0%
Range - $	$17,613	$29,355	$0	$0	$0	$0	$0	$0	$0	$0
Distribution	T									
Correlation Rank										

Analyst: _____

Client: _____