HNF-SP-1240
Revision 1

# Fiscal Year 1999 Multi-Year Work Plan

## Advanced Reactors Transition Program

Date Published
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Assistant Secretary for Environmental Management

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Richland, Washington

Hanford Management and Integration Contractor for the
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## RELEASE AUTHORIZATION

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V. L. Birkland 9/17/98

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Document Title: Fiscal Year 1999 Multi-Year Work Plan
Advanced Reactors Transition Program

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Table of Contents

## A.1.0 Technical Baseline

The MYWP technical baseline describes the work to be accomplished by the Project and the technical standards which govern that work.

## A.1.1 Mission Statement

The Advanced Reactors Transition (ART) has two missions. One, funded by DOE-EM is to transition assigned, surplus facilities to a safe and compliant, low-cost, stable, deactivated condition (requiring minimal surveillance and maintenance) pending eventual reuse or D&D. Facilities to be transitioned include the 309 Building / Plutonium Recycle Test Reactor (PRTR) and Nuclear Energy (NE) Legacy Facilities.

The second mission, funded by DOE-NE , is to maintain the Fast Flux Test Facility (FFTF) and affiliated 400 Area buildings in a safe and compliant standby condition. The condition of the plant hardware, software and personnel is to be preserved in a manner not to preclude a plant restart.

## A.1.2 Boundary Diagram with Major Facilities

The following table indentifies the major facilities that interface with this Project. The left column of the table identifies the major facilities that generate waste, materials, or infrastructure for this Project. The right column of the table identifies the major facilities that will receive waste and materials from this Project. The center column lists the major facilities managed by this Project.

***Table A-1 Advanced Reactors Transition Project Boundary Diagram***

| Major Input Interfaces | Project Facilities | Major Output Interfaces |
|---|---|---|
| External Interfaces | FFTF | External Interfaces |
| Hanford Legacy | 309 Facility | Hazardous Waste Disposal Contracts |
| Hanford Site Environmental System Interfaces | NE Legacy Facilities | Offsite Landfill |
| 3717B | | Hanford Site Environmental System Interfaces |
| CP General Purpose Shop | | 200 Interim Storage Area (ISA) |
| Electrical Distribution System | | 222-S Laboratory |
| General Purpose Shops | | 242A |
| Misc Rad Labs | | 300 Area Treated Effluent Disposal Facility |
| S600 Electrical Distribution | | Central Waste Complex |
| S600 General Purpose Office | | Double Shell Tank (DST) System |
| S600 General Purpose Shop | | Low-Level Waste Burial Grounds |
| S600 General Purpose Warehouse | | PFP |
| S600 Telecommunications System | | Sanitary Landfill |
| Telecommunications System | | |

## A.1.3 Facility Responsibility Assignment Matrix

This section provides a table that identifies the sub-projects, major facilities, and the life cycle assignments.

***Table A-2 Facility Responsibility Assignment Matrix***

| Facility | Life Cycle Phase * | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Program Planning | Pre Conceptual | Conceptual | Execute | | | O&M | Close Out | |
| | | | | Design | Construction | Turnover | | Post Ops | D&D |
| FFTF | RL-MS01 | | | | | | RL-MS01 | RL-MS01<br>RL-ER05 | RL-ER06<br>RL-ER07 |
| 309 Facility | RL-TP11 | | | | | | | RL-TP11<br>RL-ER05 | RL-ER06 |
| NE Legacy Facilities | RL-TP11 | | | | | | | RL-TP11 | RL-ER05 |

* RL PBS Identifier Index:

RL-MS01 - FFTF Project
RL-ER05 - Surveillance and Maintenance
RL-ER06 - Decontamination & Decommissioning
RL-ER07 - Long Term Surveillance and Maintenance
RL-TP11 - Advanced Reactors Transition

### A.1.4 Project Planning Assumptions

This section contains the issues that affect the project. These include project specific issues, as well as site-level issues that have been assigned to the project for resolution. It also contains the assumptions that are used as a basis for the development of project plans until the issues are formally resolved with records of decision. The "Champion" column determines if the Project has lead responsibility or is an affected participant. If the champion belongs to the Project, the Project has the lead. If not, the Project is an affected participant. Project plans include appropriate activities and resources for resolving these issues.

***Table A-3 Project Issues And Assumptions***

| | ISSUE | PLANNING ASSUMPTION | CHAMPION |
|---|---|---|---|
| 1 | **TPA Milestone Will Not Be Met** Because the FFTF has been placed in 'standby', work required in order to achieve TPA Milestones is not being performed and is not presently scheduled. | Submitted TPA change requests will be approved, placing the affected milestones 'in abeyance' until after a mission decision is made. | Farabee<br>Klos |
| 2 | **Sodium Disposition** Potential use as a neutralization agent for tank waste is projected to be beyond 2015. | Interim storage in the 400 Area and Central Waste Complex (CWC) until Tank Waste treatment processes are defined. RL will include consideration of NaOH product in future privatization contracts. | Farabee<br>Klos |

### A.1.5 Risk Management

Mission Risk Management Plans are not available at this time, however, detailed risk analysis can be found in the following documents:

- PBS Level, Risk Data Tables, Section C.1.1
- PBS Level, Risk Evaluation Narrative, Section D.1.6
- Unit of Analysis Level, current PPL and IPL located on Hanford shared area: \ap014\pbs

### A.1.6 Technical Issues Management List

This section identifies the site-level issues and planning assumptions from Section A.1.4 that have been assigned to

the project for resolution. This section is used to delineate the site-level issues and planning assumptions from the project specific issues and planning assumptions.

***Table A-4 Site Technical Issues And Assumptions***

| | ISSUE | PLANNING ASSUMPTION | CHAMPION |
|---|---|---|---|
| 1 | **Sodium Disposition** Potential use as a neutralization agent for tank waste is projected to be beyond 2015. | Interim storage in the 400 Area and Central Waste Complex (CWC) until Tank Waste treatment processes are defined. RL will include consideration of NaOH product in future privatization contracts. | Farabee<br>Klos |

## A.2.0 Project Hanford Breakdown Structure (PHBS)

### A.2.1 PHBS Hierarchy

| RL PBS | RL WBS | Title |
|---|---|---|
| | 1.12 | Advanced Reactors Transition Project |
| RL-MS01 | 2.01.01.01.21.01 | FFTF Project |
| | 2.01.01.01.21.01.01 | FFTF |
| | 2.01.01.01.21.01.01.01 | Maintain Safe & Compliant Materials in Fast Flux Test Facility |
| | 2.01.01.01.21.01.01.02 | Remove Materials from FFTF |
| | 2.01.01.01.21.01.01.03 | Maintain Safe & Compliant Fast Flux Test Facility in South 600 Areas |
| | 2.01.01.01.21.01.01.04 | Transition the Fast Flux Test Facility |
| RL-TP11 | 1.12.01 | Advanced Reactors Transition |
| | 1.12.01.01 | NE Legacy Facilities |
| | 1.12.01.01.01 | Maintain Safe & Compliant NE Legacy Facilities |
| | 1.12.01.01.02 | Transition NE Legacy Facilities |
| | 1.12.01.02 | 309 Facility |
| | 1.12.01.02.01 | Maintain Safe & Compliant 309 Building |
| | 1.12.01.02.02 | Transition 309 Building |

## A.3.0 Schedule Baseline

Schedules are provided at the PBS Level only. (See PBS Level section.)

## A.4.0 Cost Baseline

### A.4.1 Basis of Estimate

The Advanced Reactors Transition cost estimate has been developed using Activity Based Cost (ABC) estimating techniques. Planning rates and escalation applied to these estimates are consistent with those developed by the Fluor Daniel Hanford Company (FDH) Chief Financial Officer and approved by RL. The supporting information is maintained by the FFTF Transition Project Office in the 400 Area 4710 Building.

EXHIBIT 1

# ADVANCED REACTORS TRANSITION
## SUMMARY OF LIFE CYCLE COST BASELINE (BCWS) BY YEAR
## BY PROJECT BASELINE SUMMARY (PBS)
## FY 1999
## ($000s)

| MISSION WBS : | 1.12 |
|---|---|

| PBS TITLE | PBS NO | FY1997 | FY1998 | FY1999 | FY2000 | FY2001 | FY2002 | FY2003 | FY2004 | FY2005 | FY2006 | SUBTOT FY1997-FY2006 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ADVANCED REACTORS TRANSITION | RL-TP11 | 14,400 | 43,651 | 1,809 | 1,318 | 3,822 | 3,970 | 2,991 | 590 | - | - | 72,551 |
| | | | | | | | | | | | | - |
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| | | | | | | | | | | | | - |
| | | | | | | | | | | | | - |
| TOTAL BCWS/PMB[1] | | 14,400 | 43,651 | 1,809 | 1,318 | 3,822 | 3,970 | 2,991 | 590 | - | - | 72,551 |

[1]Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB); Expense Carryover is NOT Included.

EXHIBIT 1

# ADVANCED REACTORS TRANSITION
## SUMMARY OF LIFE CYCLE COST BASELINE (BCWS) BY YEAR
## BY PROJECT BASELINE SUMMARY (PBS)
## FY 1999
## ($000s)

| MISSION WBS : | 1.12 |
|---|---|

| PBS TITLE | PBS NO | FY2007 | FY2008 | FY2009 | FY2010 | FY2011-FY2015 | FY2016-FY2020 | FY2021-FY2025 | FY2026-FY2030 | FY2031-FY2035 | FY2036 FY2040 | FY2041-FY2045 | FY2046 FY2050 | TOTAL FY1997-FY2050 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ADVANCED REACTORS TRANSITION | RL-TP11 | - | - | - | - | - | - | - | - | - | - | - | - | 72,551 |
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| | | | | | | | | | | | | | | - |
| TOTAL BCWS/PMB[1] | | | | | | | | | | | | | | 72,551 |

[1]Budgeted [1]Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB); Expense Carryover is NOT Included.

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EXHIBIT 1

# FAST FLUX TEST FACILITY
## SUMMARY OF LIFE CYCLE COST BASELINE (BCWS) BY YEAR
## BY PROJECT BASELINE SUMMARY (PBS)
## FY 1999
## ($000s)

| MISSION WBS : | 2.0 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PBS TITLE | PBS NO | FY1997 | FY1998 | FY1999 | FY2000 | FY2001 | FY2002 | FY2003 | FY2004 | FY2005 | FY2006 | SUBTOT FY1997-FY2006 |
| FFTF | RL-MS01 | 31,100 | - | 41,005 | - | - | - | - | - | - | - | 72,105 |
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| | | | | | | | | | | | | - |
| | | | | | | | | | | | | - |
| TOTAL BCWS/PMB | | 31,100 | | 41,005 | | | | | | | | 72,105 |

[1]Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB); Expense Carryover is NOT Include

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EXHIBIT 1

# FAST FLUX TEST FACILITY
## SUMMARY OF LIFE CYCLE COST BASELINE (BCWS) BY YEAR
## BY PROJECT BASELINE SUMMARY (PBS)
## FY 1999
## ($000s)

| MISSION WBS : | 2.0 | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PBS TITLE | PBS NO | FY2007 | FY2008 | FY2009 | FY2010 | FY2011-FY2015 | FY2016-FY2020 | FY2021-FY2025 | FY2026-FY2030 | FY2031-FY2035 | FY2036 FY2040 | FY2041-FY2045 | FY2046 FY2050 | TOTAL FY1997-FY2050 |
| FFTF | RL-MS01 | - | - | - | - | - | - | - | - | - | - | - | - | 72,105 |
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| | | | | | | | | | | | | | | - |
| TOTAL BCWS/PMB[1] | | | | | | | | | | | | | | 72,105 |

[1]Budgete [1]Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB); Expense Carryover Is NOT Included.

EXHIBIT 4

# ADVANCED REACTORS TRANSITION

## SUMMARY OF BUDGET AUTHORITY (B/A) BY YEAR
## BY PROJECT BASELINE SUMMARY (PBS)
## FY 1999
## ($000s)

| MISSION WBS : | 1.12 | | | | |
|---|---|---|---|---|---|
| PBS TITLE | PBS NO | TARGET B/A FY1998 | CARRYOVER FROM FY1998 | PRESIDENT'S BUDGET FY1999 | PRESIDENT'S BUDGET PLUS CARRYOVER FY1999 |
| ADVANCED REACTORS TRANSITION | RL-TP11 | 38,380 | 179 | 1,907 | 2,086 |
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| | | | | | |
| | | | | | |
| TOTAL B/A | | 38,380 | 179 | 1,907 | 2,086 |

[1]Estimated Carryover Is NOT Included In Cost Baseline; Change Request For Actual Carryover Submitted After September 30, 1998.

EXHIBIT 4

# FAST FLUX TEST FACILITY

## SUMMARY OF BUDGET AUTHORITY (B/A) BY YEAR
## BY PROJECT BASELINE SUMMARY (PBS)
## FY 1999
## ($000s)

| MISSION WBS : | 2.0 | | | | |
|---|---|---|---|---|---|
| PBS TITLE | PBS NO | TARGET B/A FY1998 | CARRYOVER FROM FY1998 | PRESIDENT'S BUDGET FY1999 | PRESIDENT'S BUDGET PLUS CARRYOVER FY1999 |
| FFTF | RL-MS01 | - | - | 41,200 | 41,200 |
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| | | | | | |
| TOTAL B/A | | - | - | 41,200 | 41,200 |

[1]Estimated Carryover Is NOT Included In Cost Baseline; Change Request For Actual Carryover Submitted After September 30, 1998.

## B.1 Advanced Reactors Transition (RL-TP11)

### B.1.1.0 Advanced Reactors Transition Technical Baseline

This section describes the technical baseline for this project. It identifies the mission, the end point targets, the site major facilities, technical logic, functions, requirements, and forecasts for this project.

### B.1.1.1 Advanced Reactors Transition Mission

The Advanced Reactors Transition (ART) PBS is made up of three projects: The Plutonium Recycle Test Reactor (PRTR)/309 Building, the Nuclear Energy (NE) Legacies, and prior to FY1999, the Fast Flux Test Facility (FFTF) and Fuels and Materials Examination Facility (FMEF). The purpose of the ART projects is to safely transition assigned facilities to a deactivated state. The FFTF and FMEF were placed in standby and assigned to DOE-NE (PBS RL-MS01).

The Plutonium Recycle Test Reactor (PRTR)/309 Building, originally completed in 1960, provided an operating test reactor in the Hanford Works Plutonium Fuels Utilization Program to research and develop nuclear fuel technology. In 1962, the Plutonium Recycle Critical Facility (PRCF) was added to support the PRTR operation as a location where the reactivity values of fuel assemblies could be checked. Then in 1963, the Fuel Element Rupture Test Facility (FERTF) began operation in one fringe channel of the PRTR. The FERTF was used as a pilot irradiation facility to test new fuel element designs and new operating regimes. Reactor operations ceased in 1969. Several uses of the facility continued until August of 1993, when the PRTR/309 Building facility was declared excess by DOE-NE. The transition of the building to the Environmental Restoration Contractor (ERC) will involve placing the facility in a configuration which reduces surveillance and maintenance costs to a minimum and meets acceptance criteria for turnover to the ERC.

The NE Legacies consist of non-nuclear facilities that were used in the development of the LMFBR programs and in related engineering studies. Some of the facilities contained sodium test loops that were used to study the properties of sodium heat transport systems and to investigate the behavior of mechanical components that would be operated in a sodium environment. Other facilities were used in training the FFTF operators prior to the FFTF becoming operational.

### B.1.1.2 Advanced Reactors Transition End Point Targets from Hanford Strategic Plan

- Transition high cost surplus facilities to a low cost, stable, deactivated condition.
- Reuse facilities in the south 600 area for economic diversification where feasible.

### B.1.1.3 Advanced Reactors Transition Major Facilities

#### B.1.1.3.1 309 Facility

##### B.1.1.3.1.1 309 Facility Description

The 309 Building is a two story, steel framed building constructed in 1960. This facility was built for use as the Plutonium Recovery Test Reactor (PRTR), but has been used by several other programs. It is currently closed.

### B.1.1.3.1.2 309 Facility Facility Technical Logic:

The Department of Energy (DOE), in partnership with its contractors, shall plan, acquire, operate, maintain, and dispose of physical assets as valuable national resources. Stewardship of these physical assets shall be accomplished in a cost-effective manner to meet the DOE mission. This shall incorporate industry standards, a graded approach, and performance objectives.

This diagram displays the primary work activities (functions) that are performed in each life cycle phase of the facility. The diagram also reflects the technical logic (functional flow) for the facility through its remaining life cycle phases.

Project responsibility for the life cycle phases of the 309 Facility components are assigned as follows:

***Table B.1-1 Responsibility Assignment Matrix for 309 Facility***

| Facility | Life Cycle Phase * | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Program Planning | Pre Conceptual | Conceptual | Execute | | | O&M | Close Out | |
| | | | | Design | Construction | Turnover | | Post Ops | D&D |
| 309 Facility | **RL-TP11** | | | | | | | **RL-TP11** **RL-ER05** | **RL-ER06** |

* RL PBS Identifier Index:

RL-ER05 - Surveillance and Maintenance
RL-ER06 - Decontamination & Decommissioning
RL-TP11 - Advanced Reactors Transition

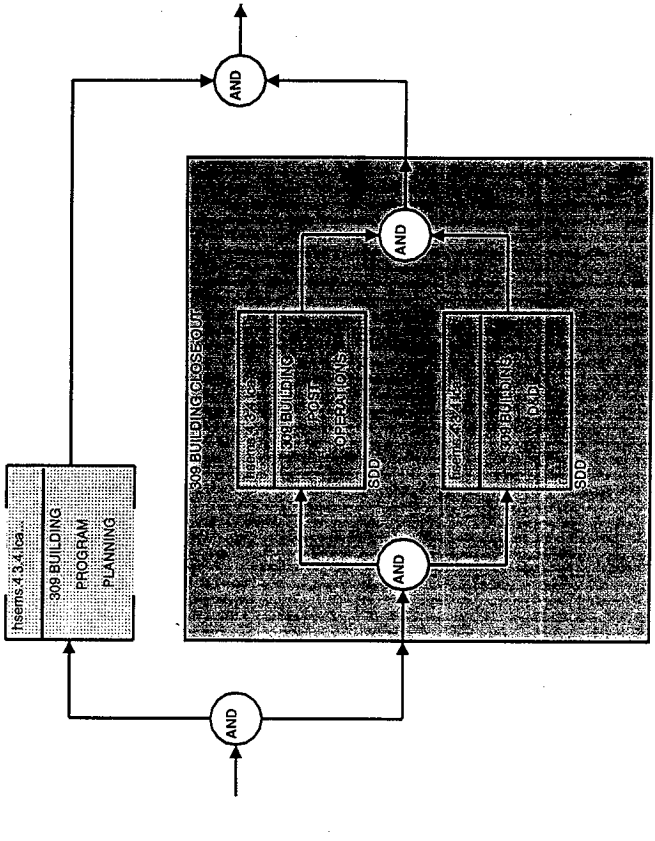



Figure B.1_1 309 BUILDING

### B.1.1.3.1.3 309 Facility Life Cycle Functional Descriptions and Requirements

The Life Cycle Functional Descriptions table describes the life cycle phases and the functions performed during each phase. The Life Cycle Requirements table describes the requirements that trace to the functions listed in the Life Cycle Functional Descriptions table.

***Table B.1-2 309 Facility Life Cycle Functional Descriptions***

| |
|---|
| **hsems.4.3.4.lcam.1 309 BUILDING PROGRAM PLANNING** |
| **hsems.4.3.4.lcam.6.1 309 BUILDING POST OPERATIONS** |
| **tsd.1.3.4.2.4 Maintain Safe & Compliant 309 Building**<br>S&M activities include building administration, building operations, maintenance, and safety analysis.<br><br>Building administration consists of work management using the JCS system, lock and tag administration, property protection, emergency planning, facility access control, facility orientation and maintenance of the shutdown log.<br><br>Building operations consists of paying utility bills, maintaining safe conduct of operations, and surveillance. Surveillance includes routine radiation protection surveys, operations checks, housekeeping and safety inspections and compliance assurance.<br><br>Maintenance includes preventive and corrective maintenance activities to ensure the building's safety envelope is adequate during the transition activities. It also includes input into the maintenance section of the building's D&D plan. |
| **tsd.2.3.4.2.4 Transition 309 Building**<br>D/C will move the facility towards turnover to the ERC for interim S&M and final D&D. Activities to be accomplished include disposition the underground emergency diesel fuel oil tank; characterize, cleanout, and stabilize the Transfer Waste Tank farm, the Rupture Loop Annex, the Fuel Storage Basin, the Fuel Examination Cell, the Fuel Transfer Basin, and the PRTR reactor cavity; replace the H&V system HEPA filters; disconnect and cap sanitary and process sewer lines; remove asbestos bearing coatings from the external surface of the dome; and upgrade the roof on other parts of the building. Completion reports will be prepared for key activities.<br><br>The facility Safety Basis document will be formatted in the Interim Safety Basis (ISB) style but of lesser scope to be consistent with the graded approach philosophy of a radiological facility rather than a nuclear facility. |

***Table B.1-3 309 Facility Life Cycle Requirements***

| Requirement | Function |
|---|---|
| The stabilizing and reconfiguring facilities for minimum S&M including deactivation of non-essential utilities, process systems, and other facility systems; modification of facility safety, ventilation, monitoring, electrical, and utility systems; removal of resources and waste; and transfer of the facility to the ERC. Remaining active systems shall be capable of operation and statusing from a location outside the facility so only quarterly personnel entry is required. Facility electrical systems shall be reconfigured so only minimal portions can be operated as required to support personnel entry. All facility reconfiguration shall be performed under Occupational Safety and Health Administration construction requirements. | tsd.2.3.4.2.4 |
| Ensuring final facility configurations do not preclude D&D activities. | tsd.2.3.4.2.4 |
| High cost surplus facilties and systems shall be transitioned to a low cost, stable, deactivated condition. | tsd.2.3.4.2.4 |
| Facilities and systems shall be made available for other uses. | tsd.2.3.4.2.4 |
| Facilities shall be transitioned to the surveillance and maintenance phase when no longer required to support the site mission. | tsd.2.3.4.2.4 |
| South 600 Area gaseous effluent releases shall be monitored | tsd.1.3.4.2.4 |
| South 600 Area facilities shall be surveilled and maintained within the approved safety envelope | tsd.1.3.4.2.4 |

*Table B.1-3 309 Facility Life Cycle Requirements (Continued)*

| Requirement | Function |
|---|---|
| The Contractor shall safely and efficiently manage the deactivation of facilities in the 300 Area whose mission was the manufacture of fuels and test assemblies for the plutonium production, space power, and advanced reactor programs. The facilities include among others, the 308, 309, 333 Buildings, and associated facilities. The program will disposition nuclear material stored in these facilities. As the material is removed, each facility will be deactivated to reduce risk and attain the lowest surveillance and maintenance cost to a condition ready for disposition. | tsd.2.3.4.2.4 |
| The Contractor shall complete removal of the TRIGA test reactor nuclear fuel and shut down the 308 Building. The contractor shall clean-up the nuclear waste and stabilize the 309 Building and surrounding area such that the closure of the 309 Building can be accomplished. | tsd.2.3.4.2.4 |

### B.1.1.3.1.4 309 Facility Boundary Diagram

This section identifies the other facilities (onsite and offsite) that have an interface (either input or output) with this facility.

*Table B.1-4 309 Facility Boundary Diagram*

| Major Input Interfaces | Facility | Major Output Interfaces |
|---|---|---|
| External Interfaces<br>Hanford Legacy<br>Hanford Site Environmental System Interfaces<br>S600 Electrical Distribution | 309 Facility | External Interfaces<br>Hazardous Waste Disposal Contracts<br>Offsite Landfill<br>Hanford Site Environmental System Interfaces<br>300 Area Treated Effluent Disposal Facility<br>Central Waste Complex<br>Low-Level Waste Burial Grounds |

### B.1.1.3.1.5 309 Facility Interface Descriptions and Summary Level Forecasts

This section contains the material, waste, and infrastructure forecasts for this facility. It identifies the interface type, the period of time for the forecasts, the life cycle total forecast value, and the execution year forecast quantity.

#### OFFSITE INPUTS

*Table B.1-5 Offsite Inputs for 309 Facility*

| Stream | Category | Period | Total | FY99 | Units |
|---|---|---|---|---|---|
| X.0 Hanford Legacy | | | | | |
| Legacy/SS 309 | (none forecasted) | | | | |

#### ONSITE INPUTS

*Table B.1-6 Onsite Inputs for 309 Facility*

| Stream | Category | Period | Total | FY99 | Units |
|---|---|---|---|---|---|
| hsems.5.1.4.4 S600 Electrical Distribution | | | | | |
| Electricity for 309 | Electricity | | | 293.0 | MW-Hr |

#### OFFSITE OUTPUTS

*Table B.1-7 Offsite Outputs for 309 Facility*

| Stream | Category | Period | Total | FY99 | Units |
|---|---|---|---|---|---|
| X Hazardous Waste Disposal Contracts | | | | | |
| 309 Asbestos | Asbestos | 1999 - 1999 | 139.0 | 139.0 | cubic meters |
| X Offsite Landfill | | | | | |
| 309 Building Sanitary Solid Waste | Sanitary Solid Waste | 1999 - 2003 | 10.0 | 2.0 | cubic meters |

**ONSITE OUTPUTS**

*Table B.1-8 Onsite Outputs for 309 Facility*

| Stream | Category | Period | Total | FY99 | Units |
|---|---|---|---|---|---|
| hsems.2.3.5.1 Central Waste Complex | | | | | |
| PRTR, CH-LLMW-I | CH LLMW I | 2000 - 2003 | 1.28 | | cubic meters |
| PRTR, CH-TRU | (none forecasted) | | | | |
| hsems.2.4.1.1 Low-Level Waste Burial Grounds | | | | | |
| PRTR, CH-LLW-I | CH LLW I | 1999 - 2003 | 19.7 | 0.0 | cubic meters |
| PRTR, CH-LLW-III | (none forecasted) | | | | |
| hsems.4.2.1.1 300 Area Treated Effluent Disposal Facility | | | | | |
| 309 Building Industrial Waste Water Transfer | (none forecasted) | | | | |

### B.1.1.3.2 NE Legacy Facilities

#### B.1.1.3.2.1 NE Legacy Facilities Description

The activities associated with the sodium legacy facilities were originally performed to support the Liquid Metal Fast Breeder Reactor (LMFBR) Program for eventual commercial use. Service and auxiliary buildings, and facilities are provided as required for operational and administrative control of each facility.

#### B.1.1.3.2.2 NE Legacy Facilities Facility Technical Logic:

This diagram displays the primary work activities (functions) that are performed in each life cycle phase of the facility. The diagram also reflects the technical logic (functional flow) for the facility through its remaining life cycle phases.

Project responsibility for the life cycle phases of the NE Legacy Facilities components are assigned as follows:

*Table B.1-9 Responsibility Assignment Matrix for NE Legacy Facilities*

| Facility | Life Cycle Phase * | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Program Planning | Pre Conceptual | Conceptual | Execute: Design | Execute: Construction | Execute: Turnover | O&M | Close Out: Post Ops | Close Out: D&D |
| NE Legacy Facilities | RL-TP11 | | | | | | | RL-TP11 | RL-ER05 |

* RL PBS Identifier Index:

RL-ER05 - Surveillance and Maintenance
RL-TP11 - Advanced Reactors Transition

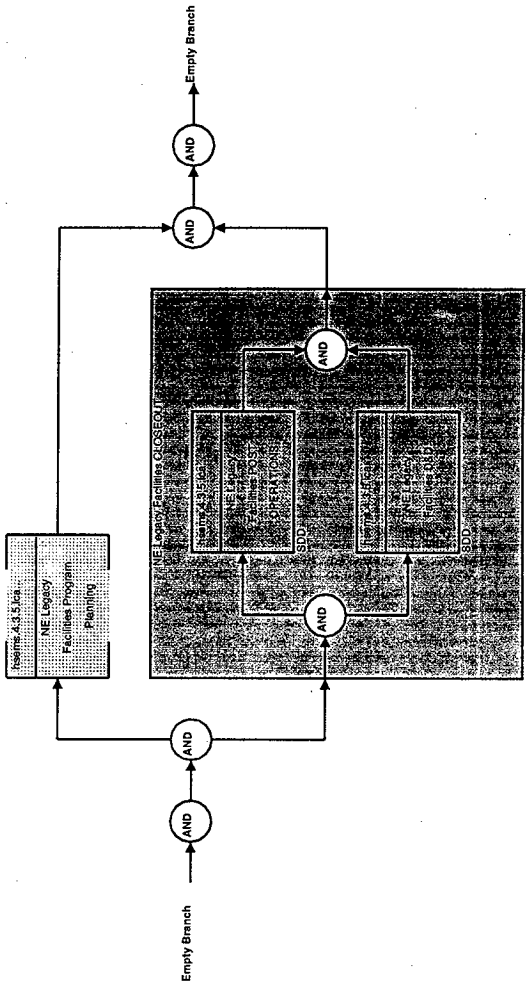



Figure B.1_2 NE Legacy Facilities

### B.1.1.3.2.3 NE Legacy Facilities Life Cycle Functional Descriptions and Requirements

The Life Cycle Functional Descriptions table describes the life cycle phases and the functions performed during each phase. The Life Cycle Requirements table describes the requirements that trace to the functions listed in the Life Cycle Functional Descriptions table.

***Table B.1-10 NE Legacy Facilities Life Cycle Functional Descriptions***

| |
|---|
| **hsems.4.3.5.lcam.1 NE Legacy Facilities Program Planning** |
| **hsems.4.3.5.lcam.6.1 NE Legacy Facilities POST OPERATIONS** |
| **tsd.1.3.4.7 Maintain Safe & Compliant NE Legacy Facilities**<br>Provide Landlord services for the Building 337 High Bay and buildings 335 and 3718M.<br><br>Provide building management and operation for the 335, 337 High Bay, and 3718-M buildings and the sodium systems located in Building 337 High Bay basement and Building 3718M. Provide electrical power and electrical maintenance for buildings 335, 3718M, and 337 High Bay. Provide steam for the 337 High Bay through RL holdback if funds for "energy savings performance contract." Provide inert gas for sodium system protection. Provide building emergency organization support for buildings containing sodium. |
| **tsd.2.3.4.2.5 Transition NE Legacy Facilities**<br>Provide management, technical lead and coordination for the disposition of the non-reactor NE facilities.<br><br>The scope of this effort includes: development and implementation of the plans to eliminate NE programs legacies; implementation of the Sodium Management Plan reflecting coordination with DOE and WA-Ecology and addressing potential RCRA issues and applicability; disposition of excess material associated with these facilities, as funds permit. This includes disposition of sodium test loops in accordance with the established Cooperative Research And Development Agreement (CRADA). |

***Table B.1-11 NE Legacy Facilities Life Cycle Requirements***

| Requirement | Function |
|---|---|
| Disposal of Alkali Metal Test Loops will comply with DOE/EA-0987 | tsd.1.3.4.7 |
| The stabilizing and reconfiguring facilities for minimum S&M including deactivation of non-essential utilities, process systems, and other facility systems; modification of facility safety, ventilation, monitoring, electrical, and utility systems; removal of resources and waste; and transfer of the facility to the ERC. Remaining active systems shall be capable of operation and statusing from a location outside the facility so only quarterly personnel entry is required. Facility electrical systems shall be reconfigured so only minimal portions can be operated as required to support personnel entry. All facility reconfiguration shall be performed under Occupational Safety and Health Administration construction requirements. | tsd.2.3.4.2.5 |
| Ensuring final facility configurations do not preclude D&D activities. | tsd.2.3.4.2.5 |
| High cost surplus facilties and systems shall be transitioned to a low cost, stable, deactivated condition. | tsd.2.3.4.2.5 |
| Facilities and systems shall be made available for other uses. | tsd.2.3.4.2.5 |
| South 600 Area facilities shall be surveilled and maintained within the approved safety envelope | tsd.1.3.4.7 |

### B.1.1.3.2.4 NE Legacy Facilities Boundary Diagram

This section identifies the other facilities (onsite and offsite) that have an interface (either input or output) with this facility.

*Table B.1-12 NE Legacy Facilities Boundary Diagram*

| Major Input Interfaces | Facility | Major Output Interfaces |
|---|---|---|
| External Interfaces<br>-None-<br>Hanford Site Environmental System Interfaces<br>Electrical Distribution System<br>General Purpose Shops<br>Telecommunications System | NE Legacy Facilities | External Interfaces<br>-None-<br>Hanford Site Environmental System Interfaces<br>Sanitary Landfill |

### B.1.1.3.2.5 NE Legacy Facilities Interface Descriptions and Summary Level Forecasts

This section contains the material, waste, and infrastructure forecasts for this facility. It identifies the interface type, the period of time for the forecasts, the life cycle total forecast value, and the execution year forecast quantity.

### OFFSITE INPUTS

-None-

### ONSITE INPUTS

*Table B.1-13 Onsite Inputs for NE Legacy Facilities*

| Stream | Category | Period | Total | FY99 | Units |
|---|---|---|---|---|---|
| hsems.5.1.4 Electrical Distribution System | | | | | |
| Electricity for NE Legacy Facilities | Electricity | | | 1320.0 | MW-Hr |
| hsems.5.1.5 Telecommunications System | | | | | |
| Telecommunications for NESF | Voice Communications Service | | | 5.0 | ea |
| hsems.5.2.3 General Purpose Shops | | | | | |
| Shops for NESF | (none forecasted) | | | | |

### OFFSITE OUTPUTS

-None-

### ONSITE OUTPUTS

*Table B.1-14 Onsite Outputs for NE Legacy Facilities*

| Stream | Category | Period | Total | FY99 | Units |
|---|---|---|---|---|---|
| hsems.5.1.6 Sanitary Landfill | | | | | |
| Landfill for NE Legacy Facilities | Sanitary Solid Waste | 1999 - 2004 | 42.0 | 7.0 | cubic meters |

### B.1.1.4 Drivers for Advanced Reactors Transition

*Table B.1-15 Source Documents for Advanced Reactors Transition*

| Name | Title |
|---|---|
| DE-AC06-96RL13200 | Project Hanford Management Contract, Fluor Daniel Hanford, Inc. |
| DOE/EA-0987 | Disposition of Alkali Metal Test Loops, Hanford Site, Richland, Washington |
| DOE/EIS-0222D | Draft Hanford Remedial Action Environmental Impact Statement and Comprehensive Land Use Plan |
| DOE/RL-96-92 | Hanford Strategic Plan |

***Table B.1-15 Source Documents for Advanced Reactors Transition (Continued)***

| Name | Title |
|---|---|
| DOE/RL-97-55 | Hanford Site Environmental Management Specification |

## B.1.2.0 Advanced Reactors Transition Work Breakdown Structure (WBS)

### B.1.2.1 Advanced Reactors Transition WBS Hierarchy

| RL PBS | RL WBS | Title |
|---|---|---|
| RL-TP11 | 1.12.01 | Advanced Reactors Transition |
| | 1.12.01.01 | NE Legacy Facilities |
| | 1.12.01.01.01 | Maintain Safe & Compliant NE Legacy Facilities |
| | 1.12.01.01.02 | Transition NE Legacy Facilities |
| | 1.12.01.02 | 309 Facility |
| | 1.12.01.02.01 | Maintain Safe & Compliant 309 Building |
| | 1.12.01.02.02 | Transition 309 Building |

### B.1.2.2 Advanced Reactors Transition WBS Dictionary

The following pages contain the WBS dictionary for RL-TP11

| 1. Dictionary Title<br>Maintain Safe & Compliant NE Legacy Facilities | | 2. Date<br>14 August 1998 | 3. PBS Number<br>RL-TP11 | 4. Dict Rev |
|---|---|---|---|---|
| 5. WBS No.<br>1.12.01.01.01 | 6. B & R No.<br>EX04J102 | | 7. Baseline CR No. | |
| 8. Organization Name<br>Advanced Reactors Transition | | | | |

9. Scope of Work

Provide Landlord services for the Building 337 High Bay and buildings 335 and 3718M.

Provide building management and operation for the 335, 337 High Bay, and 3718-M buildings and the sodium systems located in Building 337 High Bay basement and Building 3718M. Provide electrical power and electrical maintenance for buildings 335, 3718M, and 337 High Bay. Provide steam for the 337 High Bay through RL holdback if funds for "energy savings performance contract." Provide inert gas for sodium system protection. Provide building emergency organization support for buildings containing sodium.

This WBS covers work necessary to support satisfying the following technical baseline requirements for the Hanford clean up mission:

- Disposal of Alkali Metal Test Loops will comply with DOE/EA-0987
- South 600 Area facilities shall be surveilled and maintained within the approved safety envelope

| 1. Dictionary Title<br>Transition NE Legacy Facilities | | 2. Date<br>14 August 1998 | 3. PBS Number<br>RL-TP11 | 4. Dict Rev |
|---|---|---|---|---|
| 5. WBS No.<br>1.12.01.01.02 | 6. B & R No.<br>EX04J102 | | 7. Baseline CR No. | |
| 8. Organization Name<br>Advanced Reactors Transition | | | | |

9. Scope of Work

Provide management, technical lead and coordination for the disposition of the non-reactor NE facilities.

The scope of this effort includes: development and implementation of the plans to eliminate NE programs legacies; implementation of the Sodium Management Plan reflecting coordination with DOE and WA-Ecology and addressing potential RCRA issues and applicability; disposition of excess material associated with these facilities, as funds permit. This includes disposition of sodium test loops in accordance with the established Cooperative Research And Development Agreement (CRADA).

This WBS covers work necessary to support satisfying the following technical baseline requirements for the Hanford clean up mission:

- The stabilizing and reconfiguring facilities for minimum S&M including deactivation of non-essential utilities, process systems, and other facility systems; modification of facility safety, ventilation, monitoring, electrical, and utility systems; removal of resources and waste; and transfer of the facility to the ERC. Remaining active systems shall be capable of operation and statusing from a location outside the facility so only quarterly personnel entry is required. Facility electrical systems shall be reconfigured so only minimal portions can be operated as required to support personnel entry. All facility reconfiguration shall be performed under Occupational Safety and Health Administration construction requirements.
- Ensuring final facility configurations do not preclude D&D activities.
- High cost surplus facilties and systems shall be transitioned to a low cost, stable, deactivated condition.
- Facilities and systems shall be made available for other uses.

| 1. Dictionary Title<br>Maintain Safe & Compliant 309 Building | | 2. Date<br>13 August 1998 | 3. PBS Number<br>RL-TP11 | 4. Dict Rev |
|---|---|---|---|---|
| 5. WBS No.<br>1.12.01.02.01 | 6. B & R No.<br>EX04J102 | | 7. Baseline CR No. | |
| 8. Organization Name<br>Advanced Reactors Transition | | | | |

9. Scope of Work

S&M activities include building administration, building operations, maintenance, and safety analysis.

Building administration consists of work management using the JCS system, lock and tag administration, property protection, emergency planning, facility access control, facility orientation and maintenance of the shutdown log.

Building operations consists of paying utility bills, maintaining safe conduct of operations, and surveillance. Surveillance includes routine radiation protection surveys, operations checks, housekeeping and safety inspections and compliance assurance.

Maintenance includes preventive and corrective maintenance activities to ensure the building's safety envelope is adequate during the transition activities. It also includes input into the maintenance section of the building's D&D plan.

This WBS covers work necessary to support satisfying the following technical baseline requirements for the Hanford clean up mission:

- South 600 Area gaseous effluent releases shall be monitored
- South 600 Area facilities shall be surveilled and maintained within the approved safety envelope

| 1. Dictionary Title<br>Transition 309 Building | | 2. Date<br>9 September 1998 | 3. PBS Number<br>RL-TP11 | 4. Dict Rev |
|---|---|---|---|---|
| 5. WBS No.<br>1.12.01.02.02 | 6. B & R No.<br>EX04J102 | | 7. Baseline CR No. | |
| 8. Organization Name<br>Advanced Reactors Transition | | | | |

9. Scope of Work

D/C will move the facility towards turnover to the ERC for interim S&M and final D&D. Activities to be accomplished include disposition the underground emergency diesel fuel oil tank; characterize, cleanout, and stabilize the Transfer Waste Tank farm, the Rupture Loop Annex, the Fuel Storage Basin, the Fuel Examination Cell, the Fuel Transfer Basin, and the PRTR reactor cavity; replace the H&V system HEPA filters; disconnect and cap sanitary and process sewer lines; remove asbestos bearing coatings from the external surface of the dome; and upgrade the roof on other parts of the building. Completion reports will be prepared for key activities.

The facility Safety Basis document will be formatted in the Interim Safety Basis (ISB) style but of lesser scope to be consistent with the graded approach philosophy of a radiological facility rather than a nuclear facility.

This WBS covers work necessary to support satisfying the following technical baseline requirements for the Hanford clean up mission:

- The stabilizing and reconfiguring facilities for minimum S&M including deactivation of non-essential utilities, process systems, and other facility systems; modification of facility safety, ventilation, monitoring, electrical, and utility systems; removal of resources and waste; and transfer of the facility to the ERC. Remaining active systems shall be capable of operation and statusing from a location outside the facility so only quarterly personnel entry is required. Facility electrical systems shall be reconfigured so only minimal portions can be operated as required to support personnel entry. All facility reconfiguration shall be performed under Occupational Safety and Health Administration construction requirements.
- Ensuring final facility configurations do not preclude D&D activities.
- High cost surplus facilties and systems shall be transitioned to a low cost, stable, deactivated condition.
- Facilities and systems shall be made available for other uses.
- Facilities shall be transitioned to the surveillance and maintenance phase when no longer required to support the site mission.
- The Contractor shall safely and efficiently manage the deactivation of facilities in the 300 Area whose mission was the manufacture of fuels and test assemblies for the plutonium production, space power, and advanced reactor programs. The facilities include among others, the 308, 309, 333 Buildings, and associated facilities. The program will disposition nuclear material stored in these facilities. As the material is removed, each facility will be deactivated to reduce risk and attain the lowest surveillance and maintenance cost to a condition ready for disposition.
- The Contractor shall complete removal of the TRIGA test reactor nuclear fuel and shut down the 308 Building. The contractor shall clean-up the nuclear waste and stabilize the 309 Building and surrounding area such that the closure of the 309 Building can be accomplished.

### B.1.2.3 Advanced Reactors Transition Responsibility Assignment Matrix

| WBS Number | Title | Responsible Manager |
|---|---|---|
| 1.12.01 | Advanced Reactors Transition | D. B. Klos, FDH<br>E. F. Loika, BWHC |
| 1.12.01.01 | NE Legacy Facilities | W. F. Brehm |
| 1.12.01.01.01 | Maintain Safe & Compliant NE Legacy Facilities | W. F. Brehm |
| 1.12.01.01.02 | Transition NE Legacy Facilities | W. F. Brehm |
| 1.12.01.02 | 309 Facility | I. L. Metcalf |
| 1.12.01.02.01 | Maintain Safe & Compliant 309 Building | I. L. Metcalf |
| 1.12.01.02.02 | Transition 309 Building | I. L. Metcalf |

| Activity ID | Activity Description | WBS | Orig Dur | Early Start | Early Finish | 1999 2000 2001 2002 2003 2004 |
|---|---|---|---|---|---|---|
| **SITE ENVIRONMENTAL MANAGEMENT** | | | | | | |
| **ADVANCED REACTORS TRANSITION** | | | | | | |
| **ADVANCED REACTORS TRANSITION PBS (RL-TP11)** | | | | | | |
| **NUCLEAR ENERGY LEGACY FACILITIES** | | | | | | |
| ARA84 | M-92-09, Compl facility acquisition/mod for sodi | 1.12.01.01 | 0 | | 30SEP04* | B19-99-402FGX |
| **MAINTAIN SAFE & COMPLIANT 300 AREA NESF** | | | | | | |
| NE LEGACIES OCCUPANCY | | | | | | |
| AR1B1C11 | NE LEGACIES OCCUPANCY SUPPORT | 1.12.01.01.01.01 | 1,505 | 01OCT98* | 29SEP04 | |
| **TRANSITION NESF** | | | | | | |
| REMOVE & SHIP 337 CONTROLS & PIPING | | | | | | |
| AR1B1C21 | NE LEGACIES REMOVE & SHIP 337 CONTROLS & | 1.12.01.01.02.01 | 627 | 02OCT00* | 02APR03 | |
| CLEAN 221-T TANKS | | | | | | |
| AR1B1C22 | NE LEGACIES CLEAN 221-T TANKS | 1.12.01.01.02.02 | 251 | 02OCT00* | 28SEP01 | |
| COMPLETE OPTIONS FOR NON RAD SODIUM | | | | | | |
| AR1B1C23 | NE LEGACIES COMPLETE OPTIONS FOR NON RAD | 1.12.01.01.02.03 | 378 | 01APR02* | 30SEP03 | |
| ARLE0105 | MX-92-11-T01 COMPL DISP OPTIONS FOR NR SODIUM | 1.12.01.01.02.03 | 0 | | 31MAR02* | FOX B69-02-301 |
| CLEAN 3718-M STORAGE TANK | | | | | | |
| AR1B1C24 | NE LEGACIES CLEAN 3718-M STORAGE TANK | 1.12.01.01.02.04 | 440 | 03APR02* | 05JAN04 | |
| NE LEGACY SUPPORT | | | | | | |
| AR1B1C25 | NE LEGACY SUPPORT | 1.12.01.01.02.05 | 1,003 | 02OCT00* | 29SEP04 | |
| ARLE0310 | M-92-10 SUBMIT HANFORD SITE Na PROJ MGT PLAN | 1.12.01.01.02.05 | 0 | | 31OCT98* | B69-99-302FOX |

Project Start 01OCT97
Project Finish 30SEP04
Data Date 01OCT98
Run Date 08SEP98

Early Bar
Progress Bar
Critical Activity



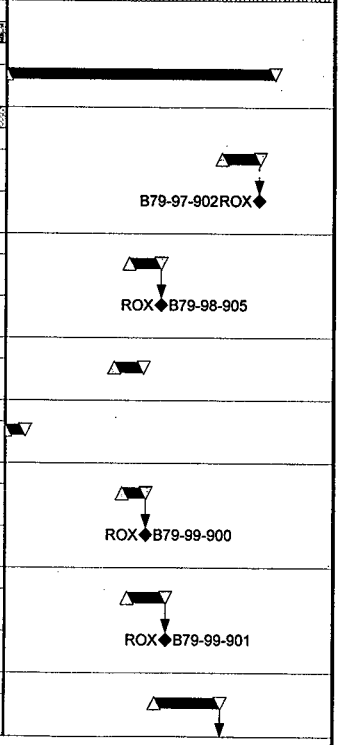
PMBS

B & W HANFORD CO.
ADVANCED REACTORS TRANSITION
PMBS SCHEDULE

Sheet 1 of 3

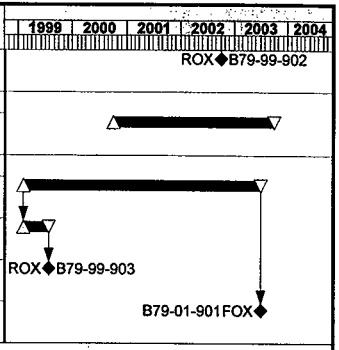
B&W Hanford Company
a McDermott company

| Activity ID | Activity Description | WBS | Orig Dur | Early Start | Early Finish |
|---|---|---|---|---|---|
| 309 BUILDING FACILITY | | | | | |
| MAINTAIN SAFE & COMPLIANT 309 BUILDING | | | | | |
| 309 BUILDING SURVEILLANCE AND MAINTENANCE | | | | | |
| AR1B1D01 | 309 BUILDING S & M SUPPORT | 1.12.01.02.01.01 | 1,254 | 01OCT98* | 30SEP03 |
| TRANSITION 309 BUILDING | | | | | |
| TW TANK FARM | | | | | |
| AR1B1D0A | 309 BUILDING TW TANK SUPPORT | 1.12.01.02.02.01 | 182 | 01OCT02* | 20JUN03 |
| ARPP0065 | STABILIZE PRTR TRANSFER WASTE HOLD B79-97-902 | 1.12.01.02.02.01 | 0 | | 16JUN03* |
| STABILIZE PRTR FUEL STORAGE BASIN | | | | | |
| AR1B1D0B | 309 BUILDING FUEL STORAGE BASIN SUPPORT | 1.12.01.02.02.02 | 155 | 15JAN01* | 22AUG01 |
| ARPP0105 | STABILIZE PRTR FUEL STORAGE BASIN B79-98-905 | 1.12.01.02.02.02 | 0 | | 22AUG01 |
| STABILIZE PRTR REACTOR CAVITY | | | | | |
| AR1B1D0C | 309 BUILDING PRTR REACTOR SUPPORT | 1.12.01.02.02.03 | 144 | 02OCT00* | 27APR01 |
| FUEL EXAM CELL | | | | | |
| AR1B1D0D | 309 BUILDING FUEL EXAM CELL SUPPORT | 1.12.01.02.02.04 | 90 | 01OCT98* | 10FEB99 |
| STABILIZE PRTR FUEL TRANSFER PIT | | | | | |
| AR1B1D0E | 309 BUILDING FUEL TRANSFER PIT SUPPORT | 1.12.01.02.02.05 | 109 | 01DEC00* | 08MAY01 |
| ARPP0185 | STABILIZE PRTR FUEL TRANSFER PIT B79-99-900 | 1.12.01.02.02.05 | 0 | | 08MAY01 |
| CLEAN OUT BALANCE PRTR CONTAINMENT | | | | | |
| AR1B1D0F | 309 BUILDING BALANCE OF CONTAINMENT SUPPORT | 1.12.01.02.02.06 | 190 | 02JAN01* | 28SEP01 |
| ARPP0225 | CLEAN OUT BALANCE PRTR CONTAINMENT B79-99-901 | 1.12.01.02.02.06 | 0 | | 28SEP01 |
| STABILIZE 309 BLDG STACKS AND PITS | | | | | |
| AR1B1D0G | 309 BUILDING HVAC STACKS SUPPORT | 1.12.01.02.02.07 | 304 | 16JUL01* | 30SEP02 |

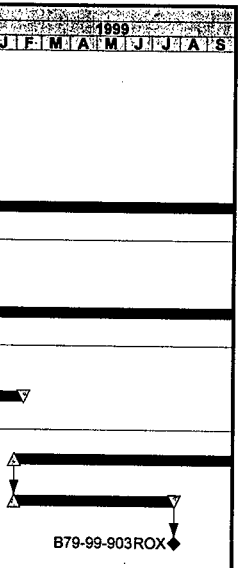



Sheet 2 of 3

| Activity ID | Activity Description | WBS | Orig Dur | Early Start | Early Finish |
|---|---|---|---|---|---|
| ARPP0275 | STABILIZE 309 BLDG STACKS AND PITS | 1.12.01.02.02.07 | 0 | | 30SEP02 |
| FACILITY DOCUMENT UPDATES | | | | | |
| AR1B1D0H | 309 BUILDING FACILITY DRAWING UPDATES | 1.12.01.02.02.08 | 752 | 02OCT00* | 30SEP03 |
| TRANSITION BLDG 309 TO SHUTDOWN | | | | | |
| AR1B1D0J | 309 BUILDING TRANSITION TO SHUTDOWN | 1.12.01.02.02.09 | 1,109 | 01FEB99* | 30JUN03 |
| ARPP0501 | DOME ROOF REPAIR | 1.12.01.02.02.09 | 125 | 01FEB99 | 29JUL99 |
| ARPP0503 | 309 CONTAINMENT DOME REPAIR | 1.12.01.02.02.09 | 0 | | 29JUL99 |
| ARPP0510 | TRANSITION BUILDING 309 TO SHUTDOWN B79-01-901 | 1.12.01.02.02.09 | 0 | | 30JUN03* |



| Activity ID | Activity Description | WBS | Orig Dur | Early Start | Early Finish |
|---|---|---|---|---|---|
| **SITE ENVIRONMENTAL MANAGEMENT** | | | | | |
| **ADVANCED REACTORS TRANSITION** | | | | | |
| **ADVANCED REACTORS TRANSITION PBS (RL-TP11)** | | | | | |
| **NUCLEAR ENERGY LEGACY FACILITIES** | | | | | |
| **MAINTAIN SAFE & COMPLIANT 300 AREA NESF** | | | | | |
| NE LEGACIES OCCUPANCY | | | | | |
| AR1B1C11 | NE LEGACIES OCCUPANCY SUPPORT | 1.12.01.01.01.01 | 1,505 | 01OCT98* | 29SEP04 |
| **309 BUILDING FACILITY** | | | | | |
| **MAINTAIN SAFE & COMPLIANT 309 BUILDING** | | | | | |
| 309 BUILDING SURVEILLANCE AND MAINTENANCE | | | | | |
| AR1B1D01 | 309 BUILDING S & M SUPPORT | 1.12.01.02.01.01 | 1,254 | 01OCT98* | 30SEP03 |
| **TRANSITION 309 BUILDING** | | | | | |
| FUEL EXAM CELL | | | | | |
| AR1B1D0D | 309 BUILDING FUEL EXAM CELL SUPPORT | 1.12.01.02.02.04 | 90 | 01OCT98* | 10FEB99 |
| TRANSITION BLDG 309 TO SHUTDOWN | | | | | |
| AR1B1D0J | 309 BUILDING TRANSITION TO SHUTDOWN | 1.12.01.02.02.09 | 1,109 | 01FEB99* | 30JUN03 |
| ARPP0501 | DOME ROOF REPAIR | 1.12.01.02.02.09 | 125 | 01FEB99 | 29JUL99 |
| ARPP0503 | 309 CONTAINMENT DOME REPAIR | 1.12.01.02.02.09 | 0 | | 29JUL99 |




Project Start 01OCT97
Project Finish 30SEP04
Data Date 01OCT98
Run Date 08SEP98

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Early Bar
Progress Bar
Critical Activity

PMBS

B & W HANFORD CO.
ADVANCED REACTORS TRANSITION
EXECUTION YEAR PMBS

Sheet 1 of 1

B&W Hanford Company
a babcock & wilcox company

| MILESTONE CONTROL # | TPA-MS NUMBER | TPA TYPE | MS LEVEL | MS TITLE | TYPE | -------DATES-------- PLANNED BASELINE | TPA/DNFSB COMMIT | DNFSB | TIP | PBS # |
|---|---|---|---|---|---|---|---|---|---|---|
| B69-99-302 | M-92-10 | I | FO | SUBMIT HANFORD SITE SODIUM MANAGEMENT PLAN TO ECOLOGY | EA | 10/31/98 | 10/31/98 | N | N | RL-TP11 |
| B19-99-402 | M-92-09 | I | FO | COMPLETE ACQUISITION FACILITIES DISPOSAL OF HANFORD SITE SODIUM | EA | 12/31/49 | 12/31/49 | N | N | RL-TP11 |
| B69-02-301 | M-92-11-T01 | T | FO | COMPLETE DISPOSITION OPTIONS FOR HANFORD SITE NONRADIOACTIVE NA | OTH | 3/31/02 | | N | N | RL-TP11 |
| B79-01-901 | | | FO | TRANSITION BLDG 309 TO SHUTDOWN STATUS | OTH | 6/30/03 | | N | N | RL-TP11 |
| B79-98-905 | | | RL | STABILIZE THE PRTR FUEL STORAGE BASIN | OTH | 8/22/01 | | N | N | RL-TP11 |
| B79-99-900 | | | RL | STABILIZE THE PRTR FUEL TRANSFER PIT | OTH | 5/08/01 | | N | N | RL-TP11 |
| B79-99-901 | | | RL | CLEAN OUT THE BALANCE OF THE PRTR CONTAINMENT | OTH | 9/28/01 | | N | N | RL-TP11 |
| B79-99-902 | | | RL | STABILIZE THE 309 BUILDING STACK AND PITS | OTH | 9/30/02 | | N | N | RL-TP11 |
| B79-97-902 | | | RL | STABILIZE THE PRTR TRANSFER WASTE HOLDING TANKS | OTH | 6/16/03 | | N | N | RL-TP11 |
| B79-99-903 | | | RL | 309 CONTAINMENT DOME REPAIR | OTH | 7/29/99 | | N | N | RL-TP11 |

# PHMC

# MILESTONE DESCRIPTION SHEET

| | | |
|---|---|---|
| **Title:** SUBMIT HANFORD SITE SODIUM MANAGEMENT PLAN TO ECOLOGY | | **Date:** 9/15/97 |
| **Assigned To:** D. A. Gantt | | **CIN:** |
| **Program WBS Designator:** 1.12.1.1 | | **Due Date:** 10/31/98 |
| **PBS No:** RL-TP11 | | |
| **MC #:** B69-99-302 | **TPA No:** M-92-10 | **Rev:** 0 |

| MILESTONE LEVEL: | MILESTONE TYPE: | DNFSB STATUS: | DELIVERABLE: | ADDRESS TO: |
|---|---|---|---|---|
| DOE-HQ<br>DOE-RL<br>X DOE-FO<br>CONTRACTOR | X EA<br>PEG<br>OTHER<br>TIP | DNFSB (Y/N): N<br>COMMIT #:<br>RECOMM #: | X Report<br>Letter<br>Drawing(s)<br>Other (Specify) | DOE-HQ<br>X DOE-RL<br>Other (Specify) |

**Milestone Description:**
Submit Hanford Site Sodium Project Management Plan (PMP) to Ecology pusuant to Agreement Action Plan section 11.5.
The Hanford Site Sodium PMP will include all plan elements required by Agreement Action Plan section 11.5.
Should DOE determine (pursuant to the Hanford Site PMP and Agreement interim milestone M-50-03) that TWRS use of Hanford Site radioactive sodium (FFTF, Hallam & Sodium Reaction Experiment) is warranted, it shall specify in its TWRS, High Level Waste Vitrification Plant Request For Proposal (s) that use of Hanford site radioactive sodium is a requirement.
Should the Hanford Site PMP and findings pursuant to Agreement interim milestone M-50-03 determine that TWRS use of Hanford site radioactive

**Description of what constitutes completion of this milestone:**
Delivery of the Hanford Site Sodium Project Managment Plan to DOE-RL.

# PHMC

# MILESTONE DESCRIPTION SHEET

Continuation Page

**Program WBS Designator:** 1.12.1.1 **MC #:** B69-99-302

**Milestone description: (con't)**
sodium is not warranted DOE shall issue accompanying proposed Agreement change requests for alternate Hanford Site radioactive sodium disposition (e.g., necessary milestones and target dates associated with the construction of the sodium reaction facility). See also Agreement target date M-81-02-T01.

# PHMC

# MILESTONE DESCRIPTION SHEET

| Title: COMPLETE ACQUISITION FACILITIES DISPOSAL OF HANFORD SITE SODIUM | | Date: 9/15/97 |
|---|---|---|
| Assigned To: D. A. Gantt | | CIN: |
| Program WBS Designator: 1.12.1.1 | | Due Date: 12/31/49 |
| PBS No: RL-TP11 | | |
| MC #: B19-99-402 | TPA No: M-92-09 | Rev: 0 |

| MILESTONE LEVEL: | MILESTONE TYPE: | DNFSB STATUS: | DELIVERABLE: | ADDRESS TO: |
|---|---|---|---|---|
| DOE-HQ<br>DOE-RL<br>X DOE-FO<br>CONTRACTOR | X EA<br>PEG<br>OTHER<br>TIP | DNFSB (Y/N): N<br>COMMIT #:<br>RECOMM #: | X Report<br>Letter<br>Drawing(s)<br>Other (Specify) | DOE-HQ<br>X DOE-RL<br>Other (Specify) |

**Milestone Description:**
Complete acquisition of new facilities, modification of existing facilities, and/or modification of planned facilities necessary for storage, treatment/processing, and disposal of Hanford site sodium.

**Description of what constitutes completion of this milestone:**
Complete acquisition of new facilities, modification of existing facilities, and/or modification of planned facilities necessary for storage, treatment/processing, and disposal of Hanford site sodium.

# PHMC

# MILESTONE DESCRIPTION SHEET

| | | |
|---|---|---|
| **Title:** 309 CONTAINMENT DOME REPAIR | | **Date:** 8/17/98 |
| **Assigned To:** IL Metcalf | | **CIN:** |
| **Program WBS Designator:** 1.12.1.2.2 | | **Due Date:** 7/29/99 |
| **PBS No:** RL-TP11 | | |
| **MC #:** B79-99-903 | **TPA No:** | **Rev:** |

| **MILESTONE LEVEL:** | **MILESTONE TYPE:** | **DNFSB STATUS:** | **DELIVERABLE:** | **ADDRESS TO:** |
|---|---|---|---|---|
| DOE-HQ<br>X DOE-RL<br>DOE-FO<br>CONTRACTOR | EA<br>PEG<br>X OTHER<br>TIP | DNFSB (Y/N): N<br>COMMIT #:<br>RECOMM #: | Report<br>X Letter<br>Drawing(s)<br>Other (Specify) | DOE-HQ<br>X DOE-RL<br>Other (Specify) |

**Milestone Description:**
Containment dome weather coating repairs required for the transition of the 309 to the ERC are completed. Damaged portions of the containment dome exterior weather covering and insulating materials have been removed. Removal is to the base emulsion layer covering the vessel steel above grade. The containment dome will be covered with a material which locks down the asbestos fibers in the emulsion layer and provides weather protection for the vessel steel. Gaps between the containment dome and the balance of the facility, resulting from the removal of the 7 cm insulating layer, will be repaired. The potential asbestos containing waste will be packaged and shipped to a compliant disposal site.

**Description of what constitutes completion of this milestone:**
FDH will submit a letter to RL-SPO documenting containment dome task completion and summarizing activity results.

# ADVANCED REACTORS TRANSITION
## LIFE CYCLE COST BASELINE (BCWS) BY YEAR BY FUND TYPE
## BY PROJECT BASELINE SUMMARY (PBS)
## FY 1999
## ($000s)

| PROJECT WBS: | 1.12.1 |
|---|---|
| PBS NO: | RL-TP11 |
| PBS TITLE: | ADVANCED REACTORS TRANSITION |

| FUND TYPE | FY1997 | FY1998 | FY1999 | FY2000 | FY2001 | FY2002 | FY2003 | FY2004 | FY2005 | FY2006 | SUBTOT FY1997-FY2006 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OPERATING EXPENSE | 14,400 | 43,651 | 1,809 | 1,293 | 3,673 | 3,738 | 2,759 | 540 | - | - | 71,863 |
| | | | | | | | | | | | |
| GENRTC | - | - | - | - | - | - | - | - | - | - | - |
| | | | | | | | | | | | |
| GENERAL PLANT PROJECT | - | - | - | - | - | - | - | - | - | - | - |
| | | | | | | | | | | | |
| LINE ITEM *(List Each One)* | | | | | | | | | | | |
| 0 | - | - | - | - | - | - | - | - | - | - | - |
| 0 | - | - | - | - | - | - | - | - | - | - | - |
| 0 | - | - | - | - | - | - | - | - | - | - | - |
| 0 | - | - | - | - | - | - | - | - | - | - | - |
| 0 | - | - | - | - | - | - | - | - | - | - | - |
| 0 | - | - | - | - | - | - | - | - | - | - | - |
| *Subtotal Line Items* | - | - | - | - | - | - | - | - | - | - | - |
| Escalation | - | - | - | 25 | 149 | 232 | 232 | 50 | - | - | 688 |
| *TOTAL[1] BCWS/PMB* | 14,400 | 43,651 | 1,809 | 1,318 | 3,822 | 3,970 | 2,991 | 590 | | | 72,551 |
| | | | | | | | | | | | |
| MGMT RESERVE[2] | - | - | - | - | - | - | - | - | - | - | - |
| | | | | | | | | | | | |
| LINE ITEM CONTINGENCY[2] | - | - | - | - | - | - | - | - | - | - | - |
| | | | | | | | | | | | |
| TRANSFERS[3] | - | - | 98 | 98 | 98 | 98 | 98 | 98 | - | - | 588 |
| | | | | | | | | | | | |
| *Subtotal* | - | - | 98 | 98 | 98 | 98 | 98 | 98 | - | - | 588 |
| Escalation | - | - | - | 2 | 4 | 7 | 9 | 11 | - | - | 33 |
| *TOTAL* | 14,400 | 43,651 | 1,907 | 1,418 | 3,924 | 4,075 | 3,098 | 699 | | | 73,172 |

[1]Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB); Expense Carryover is Not Included

[2]Management Reserve and Line Item Contingency Held by RL

[3]Funds/Workscope Transferred to Other Sites, Transferred to Hanford from Other Sites, and/or Funds/Workscope Controlled by RL.

EXHIBIT 1a

# ADVANCED REACTORS TRANSITION
## LIFE CYCLE COST BASELINE (BCWS) BY YEAR BY FUND TYPE
## BY PROJECT BASELINE SUMMARY (PBS)
## FY 1999
## ($000s)

| PROJECT WBS: | 1.12.1 |
|---|---|
| PBS NO: | RL-TP11 |
| PBS TITLE: | ADVANCED REACTORS TRANSITION |

| FUND TYPE | FY2007 | FY2008 | FY2009 | FY2010 | FY2011-FY2015 | FY2016-FY2020 | FY2021-FY2025 | FY2026-FY2030 | FY2031-FY2035 | FY2036 FY2040 | FY2041-FY2045 | FY2046 FY2050 | TOTAL FY1997-FY2050 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OPERATING EXPENSE | - | - | - | - | - | - | - | - | - | - | - | - | 71,863 |
| CENRTC | - | - | - | - | - | - | - | - | - | - | - | - | - |
| GENERAL PLANT PROJECT | - | - | - | - | - | - | - | - | - | - | - | - | - |
| LINE ITEM *(List Each One)* | | | | | | | | | | | | | |
| 0 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 0 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 0 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 0 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 0 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| *Subtotal Line Items* | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Escalation | - | - | - | - | - | - | - | - | - | - | - | - | 688 |
| *TOTAL BCWS/PMB*[1] | | | | | | | | | | | | | 72,551 |
| MGMT RESERVE[2] | - | - | - | - | - | - | - | - | - | - | - | - | - |
| LINE ITEM CONTINGENCY[2] | - | - | - | - | - | - | - | - | - | - | - | - | - |
| TRANSFERS[3] | - | - | - | - | - | - | - | - | - | - | - | - | 588 |
| *Subtotal* | - | - | - | - | - | - | - | - | - | - | - | - | 588 |
| Escalation | - | - | - | - | - | - | - | - | - | - | - | - | 33 |
| *TOTAL* | | | | | | | | | | | | | 73,172 |

[1]Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB); Expense Carryover is Not Included

[2]Management Reserve and Line Item Contingency Held by RL

[3]Funds/Workscope Transferred to Other Sites, Transferred to Hanford from Other Sites, and/or Funds/Workscope Controlled by RL.

# ADVANCED REACTORS TRANSITION

## BUDGET AUTHORITY (B/A) BY YEAR BY FUND TYPE
## BY PROJECT BASELINE SUMMARY (PBS)
## FY 1999
## ($000s)

| PROJECT WBS: | 1.12.1 | |
|---|---|---|
| PBS NO: | RL-TP11 | |
| PBS TITLE: | ORS TRANSITION | |
| FUND TYPE | TARGET B/A FY1998 | PRESIDENT'S BUDGET PLUS CARRYOVER[1] FY1999 |
| OPERATING EXPENSE | 38,380 | 1,907 |
| | | |
| CENRTC | - | |
| | | |
| GENERAL PLANT PROJECT | - | |
| | | |
| LINE ITEM *(List Each One)* | | |
| 0 | - | |
| 0 | - | |
| 0 | - | |
| 0 | - | |
| 0 | - | |
| 0 | - | |
| *Subtotal Line Items* | - | |
| | | |
| *TOTAL NEW B/A* | 38,380 | 1,907 |
| | | |
| ESTIMATED FY 1998 CARRYOVER | | 179 |
| | | |
| *TOTAL NEW B/A+CARRYOVER* | 38,380 | 2,086 |

[1]Estimated Carryover Is NOT Included In Cost Baseline; Change Request For Actual Carryover Submitted After September 30, 1998.

## B.2 FFTF Project (RL-MS01)

### B.2.1.0 FFTF Project Technical Baseline

This section describes the technical baseline for this project. It identifies the mission, the end point targets, the site major facilities, technical logic, functions, requirements, and forecasts for this project.

### B.2.1.1 FFTF Project Mission

The FFTF and affiliated 400 Area buildings are to be maintained in a safe and compliant standby condition. The condition of the plant hardware, software and personnel is to be preserved in a manner not to preclude a plant restart.

The Fast Flux Test Facility (FFTF) is the largest, most modern, liquid metal-cooled test reactor in the world. Originally constructed in the late 1970s, it's purpose was to support the U.S. Liquid Metal Fast Breeder Reactor (LMFBR) Program. The FFTF began power operation in 1982 and demonstrated its ability to perform fuel and materials tests in support of both national and international fast breeder reactor programs, produce medical and industrial isotopes, perform materials tests for the fusion and space programs, perform passive safety tests, and provide customized neutron environments to meet customer needs. Detailed studies were also done to show the feasibility of producing significant quantities of Plutonium-238, as well as approximately 100 megawatts of electrical power with the addition of a steam powered turbine generator.

In January 1990, after a U. S. Department of Energy (DOE) evaluation of potential long term missions for the FFTF, DOE concluded that justification to support the expense of continued operation did not exist. This lead to a series of new studies and marketing efforts by the Governor of the State of Washington, in cooperation with the Congressional Delegation of the State. Eventually the Secretary of Energy informed the Washington State Congressional Delegation that DOE planned to commence a phased shutdown process on December 15, 1993, to place the FFTF in a radiologically and industrially safe shutdown condition. Accordingly, removal of the fuel from the reactor vessel began in March 1994 and was completed in April 1995. Following this major accomplishment, the washing of sodium wetted, fueled components was successfully demonstrated.

In order to remove the spent nuclear fuel from storage in the FFTF, procurement contracts were placed for the fabrication of Interim Storage Casks (ISC) and Core Component Containers (CCC) that will be used for the dry storage of washed, FFTF nuclear fueled components. The CCC, when filled with up to seven clean FFTF fueled components, is placed inside of an ISC and transported to the 400 Area Interim Storage Area (ISA), located in the northeast corner of the FFTF complex. The 400 Area ISA is large enough to also store spent nuclear fuel from other facilities in the Hanford 300 Area.

After preparations were made to support the early draining of the secondary loop sodium to in-plant storage tanks in November 1995, DOE ordered all drain activities delayed while an expedited review was conducted on the possible benefits of continued reactor operation for tritium production. Eventually, DOE suspended actions to drain the secondary loop sodium until further notice and deferred all activities that would affect the potential to restart the reactor. Then in January 1997, the Secretary of Energy, by Memorandum of Decision (MOD), directed the FFTF be maintained in a standby condition while studies are conducted to determine if the FFTF can perform a role in augmenting the current, dual-track tritium production options. By December 1998 the DOE is to determine the primary, long-term source of tritium and any potential augmentation role for the FFTF. The MOD identifies two options for producing tritium - building an accelerator or converting a commercial reactor - with the FFTF considered as either a backup or a stopgap measure. Despite these delays to the shutdown plan, significant progress has been

made in several key areas which include: packaging and storing highly-radioactive, spent, fueled components in ISCs; procedure preparation for draining plant sodium; completing the reactor vessel plenum drill development project; and completing the construction of the Sodium Storage Facility (SSF). The new SSF is located adjacent to the FFTF and is capable of storing 292,000 gallons of radioactive sodium, which will accommodate all drainable sodium from the FFTF.

The FMEF was built during the late 1970s and early 1980s as a major addition to the breeder reactor technology development program. Its design was initiated in 1978 and underwent several major changes in scope as a result of changes in the direction of the DOE's breeder reactor development programs. The initial design concept was to provide a facility with capability to destructively and nondestructively inspect irradiated fuel materials from the DOE Research and Development Breeder Reactor projects being developed at that time (the FFTF and the Clinch River Breeder Reactor Plant [CRBRP]). The first facility scope revision occurred in April 1979, when a second breeder reactor development facility was incorporated within the FMEF design. This facility, the High Performance Fuels Laboratory (HPFL), was to produce breeder reactor fuel assemblies for the FFTF and the CRBRP. It included fabrication of high-exposure and spiked fuels for proliferation resistance. During 1979, the U.S. Government's proliferation policy was changed and the need for a HPFL type of fuel fabrication was eliminated. As a result, the HPFL process was replaced by the Secure Automated Fabrication (SAF) Line in October 1980. Further changes in the DOE Breeder Reactor Program direction resulted in a facility scope reduction in October 1983, removing the irradiated fuel examination functions. During 1983, modifications to the shops and storage portion of the Entry Wing were incorporated for FFTF fuel assembly fabrication (pins to assemblies). The Fuel Assembly Area (FAA) was then established and configured to support fuel pin inspection, assembly, and storage. Low-exposure, SAF-fabricated driver fuel pins would be transferred to the FAA for final processing. With the demise of the DOE Breeder Reactor Program, the SAF Project was canceled. Several other projects have altered the original design of the facility, but none have ever come to fruition. The facility will be closed, in standby, except for limited use of shop and storage space for activities in support of the Spent Nuclear Fuels Project and the Tank Waste Remediation Project.

### B.2.1.2 FFTF Project End Point Targets from Hanford Strategic Plan

- Spent fuels (TRIGA and light water reactor) and applicable FFTF fuels removed from 400 Area interim storage area to 200 Area.
- Transition high cost surplus facilities to a low cost, stable, deactivated condition.
- Transition the FFTF to low cost, stable, deactivated condition.
- Reuse facilities in the south 600 area for economic diversification where feasible.

### B.2.1.3 FFTF Project Major Facilities

### B.2.1.3.1 FFTF Facility

#### B.2.1.3.1.1 FFTF Facility Description

FFTF consists of a fast flux test reactor and numerous support facilities. The reactor uses plutonium-uranium oxide fuel and sodium coolant. It has a power rating of 400 MWt. Service and auxiliary buildings and facilities are provided for control of the plant, receiving and shipping of fuel and equipment, storage of irradiated fuel, secondary coolant system equipment, service systems, equipment decontamination and repair, and other operating and administrative services.

### B.2.1.3.1.2 FFTF Facility Technical Logic:

The Department of Energy (DOE), in partnership with its contractors, shall plan, acquire, operate, maintain, and dispose of physical assets as valuable national resources. Stewardship of these physical assets shall be accomplished in a cost-effective manner to meet the DOE mission. This shall incorporate industry standards, a graded approach, and performance objectives.

This diagram displays the primary work activities (functions) that are performed in each life cycle phase of the facility. The diagram also reflects the technical logic (functional flow) for the facility through its remaining life cycle phases.

Project responsibility for the life cycle phases of the FFTF components are assigned as follows:

***Table B.2-1 Responsibility Assignment Matrix for FFTF***

| Facility | Life Cycle Phase * | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Program Planning | Pre Conceptual | Conceptual | Execute | | | O&M | Close Out | |
| | | | | Design | Construction | Turnover | | Post Ops | D&D |
| FFTF | **RL-MS01** | | | | | | **RL-MS01** | **RL-MS01**<br>RL-ER05 | **RL-ER06**<br>RL-ER07 |

* RL PBS Identifier Index:

RL-MS01 - FFTF Project
RL-ER05 - Surveillance and Maintenance
RL-ER06 - Decontamination & Decommissioning
RL-ER07 - Long Term Surveillance and Maintenance

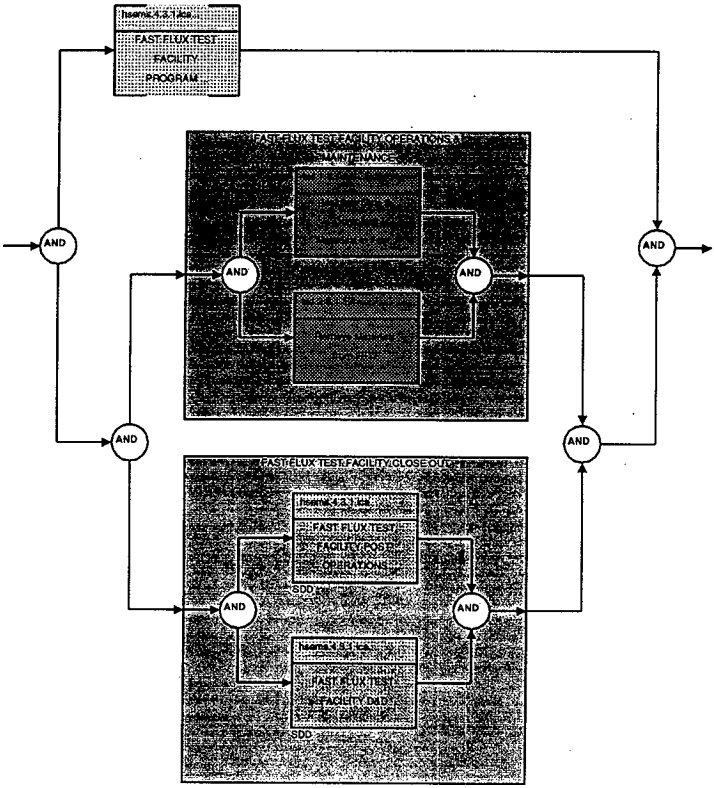



Figure B.2_1 FAST FLUX TEST FACILITY

### B.2.1.3.1.3 FFTF Life Cycle Functional Descriptions and Requirements

The Life Cycle Functional Descriptions table describes the life cycle phases and the functions performed during each phase. The Life Cycle Requirements table describes the requirements that trace to the functions listed in the Life Cycle Functional Descriptions table.

***Table B.2-2 FFTF Life Cycle Functional Descriptions***

| |
|---|
| **hsems.4.3.1.lcam.1 FAST FLUX TEST FACILITY PROGRAM PLANNING** |
| **hsems.4.3.1.lcam.5 FAST FLUX TEST FACILITY OPERATIONS & MAINTENANCE** |
| **tsd.1.3.1.1.1 Maintain Safe & Compliant Materials in Fast Flux Test Facility**<br>This WBS maintains the Fast Flux Test Facility and associated facilities in a standby condition while an evaluation is conducted of any future role that the facility might have in the Department's tritium and isotope production strategy.<br><br>The surveillance and maintenance (S&M) of facilities and plant systems will be performed to comply with federal and state safety requirements. Activities will include required project planning and management, operation and monitoring of plant systems and components, monitoring of regulated effluent streams, safeguarding nuclear materials, maintaining the design of the FFTF plant systems and components, and maintaining equipment and systems operational. In the standby condition, S&M of the FFTF shall have additional objectives to ensure that there is: (a) no degradation of key plant systems; (b) retention of the authorization basis and configuration control; (c) maintenance of key staffing, qualifications, and training.<br><br>Program planning activities include the preparation of budget documents, program plans, and schedules. Performance to these plans and schedules will be monitored and managed. |
| **tsd.2.3.1.1.1 Remove Materials from FFTF**<br>This WBS provides those activities necessary for the removal of nuclear materials (unirradiated and irradiated fueled components) from the FFTF.<br><br>Offload all unusable fueled components from within FFTF and place them in interim storage. Offload unusable nonfueled components from within FFTF and ship them for disposal. Activities in these areas include: Oversee the procurement and testing of Interim Storage Casks (ISCs) and Core Component Casks (CCCs); prepare and approve detailed refueling plans and Interim Examination and Maintenance Cell (IEMC), and Examination and Decontaminated Services (EDS) work plans; perform necessary criticality evaluations; conduct operational readiness assessments; operate and maintain the refueling equipment; provide engineering, maintenance, and operations support for component handling, washing, packaging, and shipping operations; assemble FFTF fuel assembly data packages; preserve FFTF nuclear equipment performance data and documentation. |
| **hsems.4.3.1.lcam.6.1 FAST FLUX TEST FACILITY POST OPERATIONS** |
| **tsd.1.3.4.2.1 Maintain Safe & Compliant Fast Flux Test Facility in South 600 Areas**<br>During transition to shutdown, this WBS will provide surveillance and maintenance (S&M) of facilities and plant systems to comply with federal and state safety requirements. Activities will include required project planning and management, operation and monitoring of plant systems and components, monitoring of regulated effluent streams, safeguarding nuclear materials, maintaining the design of the FFTF plant systems and components, and maintaining equipment and systems operational. |

### Table B.2-2 FFTF Life Cycle Functional Descriptions (Continued)

| | |
|---|---|
| | **tsd.2.3.4.2.1 Transition the Fast Flux Test Facility**<br>This WBS will accomplish those activities which move the FFTF to an industrially and radiologically safe shutdown condition, once DOE has determined that the FFTF is no longer required for any future mission.<br><br>Activities will include removing unusable spent nuclear fuel components from the FFTF to dry cask storage. Irradiated, non-fueled components will also be removed from the FFTF and dispositioned for proper disposal. Any remaining, unirradiated fuel components will be removed for proper disposition. The fuel handling equipment will be maintained and upgraded, where appropriate, to ensure reliability.<br><br>Sodium and NaK systems will be drained, to the extent practical, to the tanks in the Sodium Storage Facility. Residual sodium will be protected under a blanket of non-reactive gas.<br><br>Reactor plant systems will be placed in a safe condition for long-term surveillance and maintenance pending final deactivation and decommissioning. |

### Table B.2-3 FFTF Life Cycle Requirements

| Requirement | Function |
|---|---|
| The stabilizing and reconfiguring facilities for minimum S&M including deactivation of non-essential utilities, process systems, and other facility systems; modification of facility safety, ventilation, monitoring, electrical, and utility systems; removal of resources and waste; and transfer of the facility to the ERC. Remaining active systems shall be capable of operation and statusing from a location outside the facility so only quarterly personnel entry is required. Facility electrical systems shall be reconfigured so only minimal portions can be operated as required to support personnel entry. All facility reconfiguration shall be performed under Occupational Safety and Health Administration construction requirements. | tsd.2.3.4.2.1 |
| Dispositioning facility inventories of SNM/NM/NF through the stabilization, treatment, packaging, temporary storage, documentation preparation, and transportation of these materials to another locations. | tsd.2.3.4.2.1 |
| Ensuring final facility configurations do not preclude D&D activities. | tsd.2.3.4.2.1 |
| Managing SNM/NM/NF material as follows:<br><br>- Consolidating SNM/NM/NF materials early in the facility deactivation process to minimize the safety and compliance envelope. Where feasible, these materials shall be removed from the facility early in the deactivation process. When deactivation is complete, a facility shall no longer contain SNM/NM/NF.<br>- Safely and compliantly storing SNM/NM/NF until a national policy on disposition is formulated. The SNM/NM/NF shall be transferred to other beneficial uses where possible. All NM held by DOE contractors shall be stored, transferred, and dispositioned in compliance with DOE guidance and federal, state, and local laws.<br>- Continuing the current SNM/NM/NF safety and security approach, with necessary interim upgrades, until a preferred longer term approach is selected.<br>- Continuing development and implementation of criteria for the receipt, storage, treatment, and disposition of SNM/NM/NF.<br>- Continuing studies to determine the best alternatives for onsite material storage<br>- Actively involving stakeholders in the development of long-term treatment, storage, and disposition plans through the NEPA process.<br>- Delaying SNM/NM/NF treatment for ultimate disposition until final disposition for these materials is determined. | tsd.2.3.4.2.1 |
| High cost surplus facilties and systems shall be transitioned to a low cost, stable, deactivated condition. | tsd.2.3.4.2.1 |
| Facilities and systems shall be made available for other uses. | tsd.2.3.4.2.1 |
| 400 Area surplus facilties shall be transitioned to the surveillance and maintenance phase | tsd.2.3.4.2.1 |
| FFTF shall be transitioned to the surveillance and maintenance phase | tsd.2.3.4.2.1 |
| South 600 Area special nuclear materials shall be moved to the Central Plateau | tsd.2.3.1.1.1 |
| Nuclear materials shall be moved from the 400 Area to the Central Plateau | tsd.2.3.1.1.1 |
| South 600 Area gaseous effluent releases shall be monitored | tsd.1.3.4.2.1 |
| FFTF shall be maintained within the approved safety envelope | tsd.1.3.4.2.1 |

*Table B.2-3 FFTF Life Cycle Requirements (Continued)*

| Requirement | Function |
|---|---|
| Spent fuels (light water reactor) shall be moved from the 400 Area interim storage to the Central Plateau Interim Storage | tsd.1.3.1.1.1 |
| 400 Area Nuclear materials shall be stabilized | tsd.2.3.1.1.1 |
| Complete transfer of irraditated fuel to dry cask storage. Due Date: 10/31/1998 | tsd.2.3.4.2.1 |
| Complete transfer of unirraditated fuel to the Plutonium Finishing Plant. Due Date: 10/31/1998 | tsd.2.3.4.2.1 |
| Complete transfer of special fuel to the Idaho National Engineering Laboratory for consolidated storage. Due Date: 10/31/1998 | tsd.2.3.4.2.1 |
| Complete auxiliary systems deactivation. Due Date: 3/31/2001 | tsd.2.3.4.2.1 |
| Complete Sodium storage facility startup. Due Date: 7/31/1998 | tsd.2.3.4.2.1 |
| Complete FFTF Sodium drain. Due Date: 3/31/2000 | tsd.2.3.4.2.1 |
| Complete PCB transformer disposal. Due Date:9/30/2001 | tsd.2.3.4.2.1 |
| Complete commercial disposition and/or the acquisition of new facilities, modification of existing facilities, and/or modification of planned facilities necessary for storage, treatment/processing, and disposal/disposition of all Hanford Site UU.<br><br>This target date includes all UU located in 300 Area fuel supply facilities (Uranium dioxide powder and pellets stored in cans, pins, assemblies, and drums), Uranium trioxide (UO3) powder stored in T-hoppers adjacent to the U-Plant, depleted UO3 stored in 55 gallon drums in the 200 West Area and the 4713 Building.<br><br>Due Date: 12/31/2000 | tsd.2.3.1.1.1<br>tsd.2.3.4.2.1<br>hsems.4.3.1.l<br>cam.6.1 |
| The Contractor shall manage the stabilization/disposition of nuclear material, fuel, and hazardous materials, and the deactivation of the FFTF and associated systems to a condition ready for final disposition, reducing the risk and attain the lowest surveillance and maintenance cost. The Contractor shall complete the sodium removal, wash the fuel elements, and place the cleaned elements in dry casks for storage. The Contractor shall complete the deactivation of FFTF. | tsd.2.3.4.2.1 |

### B.2.1.3.1.4 FFTF Boundary Diagram

This section identifies the other facilities (onsite and offsite) that have an interface (either input or output) with this facility.

*Table B.2-4 FFTF Boundary Diagram*

| Major Input Interfaces | Facility | Major Output Interfaces |
|---|---|---|
| External Interfaces | FFTF | External Interfaces |
| Hanford Legacy | | Hazardous Waste Disposal Contracts |
| Hanford Site Environmental System Interfaces | | Offsite Landfill |
| 3717B | | Hanford Site Environmental System Interfaces |
| CP General Purpose Shop | | 200 Interim Storage Area (ISA) |
| Misc Rad Labs | | 222-S Laboratory |
| S600 Electrical Distribution | | 242A |
| S600 General Purpose Office | | Double Shell Tank (DST) System |
| S600 General Purpose Shop | | PFP |
| S600 General Purpose Warehouse | | |
| S600 Telecommunications System | | |

### B.2.1.3.1.5 FFTF Interface Descriptions and Summary Level Forecasts

This section contains the material, waste, and infrastructure forecasts for this facility. It identifies the interface type, the period of time for the forecasts, the life cycle total forecast value, and the execution year forecast quantity.

**OFFSITE INPUTS**

### Table B.2-5 Offsite Inputs for FFTF

| Stream | Category | Period | Total | FY99 | Units |
|---|---|---|---|---|---|
| X.0 Hanford Legacy | | | | | |
| Initial FFTF Highly Enriched Uranium | Highly Enriched Uranium (HEU) | 1999 - 1999 | 42.7 | 42.7 | kilograms |
| Initial FFTF LLW (Liquid) | LLW (Liquid) | 1999 - 1999 | 39.0 | 39.0 | cubic meters |
| Initial FFTF Depleted Uranium | Depleted Uranium (DU) | 1999 - 1999 | 338.0 | 338.0 | kilograms |
| Initial FFTF Natural Uranium | Natural Uranium (NU) | 1999 - 1999 | 0.0 | 0.0 | kilograms |
| Initial FFTF Plutonium | Plutonium (Pu) | 1999 - 1999 | 285.0 | 285.0 | kilograms |
| Initial FFTF Spent Nuclear Fuel | Spent Nuclear Fuel (SNF) | 1999 - 1999 | 11.1 | 11.1 | MTHM |

## ONSITE INPUTS

### Table B.2-6 Onsite Inputs for FFTF

| Stream | Category | Period | Total | FY99 | Units |
|---|---|---|---|---|---|
| hsems.1.4.2.12 3717B | | | | | |
| Non-rad Standards (Calibrations) for FFTF | Non-rad Standards Lab Services | | | 600.0 | calibrations |
| hsems.4.5.7 Misc Rad Labs | | | | | |
| Radioactive Standards (Calibrations) for FFTF | Radioactive Standards Lab Services | | | 216.0 | calibrations |
| hsems.5.1.4.4 S600 Electrical Distribution | | | | | |
| Electricity for FFTF | Electricity | | | 31200.0 | MW-hr |
| Electricity for 400-AG | Electricity | | | 16900.0 | MW-hr |
| hsems.5.1.5.4 S600 Telecommunications System | | | | | |
| SS Telecommunications/FFTF | Voice Communications Service | | | 231.0 | no. of phones |
| hsems.5.2.2.2 S600 General Purpose Office | | | | | |
| Office Space (Program Owned) for FFTF | Office Space (Program Owned) | | | 28400.0 | sq. ft. |
| hsems.5.2.3.1 CP General Purpose Shop | | | | | |
| Lifting (Cranes) for FFTF | Lifting Services | | | 20.0 | crane days |
| Custodial Services for FFTF | Custodial Services | | | 100000.0 | sq. ft. |
| hsems.5.2.3.2 S600 General Purpose Shop | | | | | |
| Sedans/Light Trucks for FFTF | Sedans/Light Trucks | | | 10.0 | no. of vehicles |
| hsems.5.2.4.2 S600 General Purpose Warehouse | | | | | |
| Storage Space (Infrastructure Owned) for FFTF | (none forecasted) | | | | |
| Storage Space (Program Owned) for FFTF | Allocated Storage | | | 78500.0 | sq. ft. |

## OFFSITE OUTPUTS

### Table B.2-7 Offsite Outputs for FFTF

| Stream | Category | Period | Total | FY99 | Units |
|---|---|---|---|---|---|
| X Hazardous Waste Disposal Contracts | | | | | |
| FFTF Asbestos | Asbestos | 1999 - 2001 | 14.0 | 4.0 | cubic meters |
| FFTF Hazardous Waste | HAZ | 1999 - 2002 | 7.47 | 1.73 | cubic meters |
| X Offsite Landfill | | | | | |
| FFTF Sanitary Solid Waste | Sanitary Solid Waste | 1999 - 2001 | 11200 | 3730.0 | cubic meters |

## ONSITE OUTPUTS

### Table B.2-8 Onsite Outputs for FFTF

| Stream | Category | Period | Total | FY99 | Units |
|---|---|---|---|---|---|
| hsems.2.2.9 PFP | | | | | |
| FFTF Plutonium | (none forecasted) | | | | |
| FFTF Spent Nuclear Fuel (to PFP) | Spent Nuclear Fuel (SNF) | 2001 - 2002 | 0.6 | | MTHM |
| FFTF Highly Enriched Uranium | Highly Enriched Uranium (HEU) | 2000 - 2000 | 42.7 | | kilograms |
| FFTF Natural Uranium | (none forecasted) | | | | |
| FFTF Depleted Uranium (to PFP) | (none forecasted) | | | | |
| hsems.2.3.1.1.44 242A | | | | | |
| FFTF, LLW (Liquid) | LLW (Liquid) | 1999 - 2004 | 69.3 | 39.0 | cubic meters |

*Table B.2-8 Onsite Outputs for FFTF (Continued)*

| Stream | Category | Period | Total | FY99 | Units |
|---|---|---|---|---|---|
| hsems.2.3.1.2 Double Shell Tank (DST) System FFTF, HLW | HLW | 1999 - 2015 | 0.0 | 0.0 | cubic meters |
| hsems.2.3.4 200 Interim Storage Area (ISA) SNF Removed from FFTF | Spent Nuclear Fuel (SNF) | 2000 - 2003 | 10.2 | | MTHM |
| hsems.2.5.1 222-S Laboratory Analytical Laboratory Services for FFTF | Analytical Laboratory Services | | | 20.0 | samples |

## B.2.1.4 Drivers for FFTF Project

*Table B.2-9 Source Documents for FFTF Project*

| Name | Title |
|---|---|
| DE-AC06-96RL13200 | Project Hanford Management Contract, Fluor Daniel Hanford, Inc. |
| DOE/EIS-0222D | Draft Hanford Remedial Action Environmental Impact Statement and Comprehensive Land Use Plan |
| DOE/RL-89-10 | Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement), Rev.4 |
| DOE/RL-96-92 | Hanford Strategic Plan |
| DOE/RL-97-55 | Hanford Site Environmental Management Specification |

## B.2.2.0 FFTF Project Work Breakdown Structure (WBS)

### B.2.2.1 FFTF Project WBS Hierarchy

| RL PBS | RL WBS | Title |
|---|---|---|
| RL-MS01 | 2.01.01.01.21.01 | FFTF Project |
| | 2.01.01.01.21.01.01 | FFTF |
| | 2.01.01.01.21.01.01.01 | Maintain Safe & Compliant Materials in Fast Flux Test Facility |
| | 2.01.01.01.21.01.01.02 | Remove Materials from FFTF |
| | 2.01.01.01.21.01.01.03 | Maintain Safe & Compliant Fast Flux Test Facility in South 600 Areas |
| | 2.01.01.01.21.01.01.04 | Transition the Fast Flux Test Facility |

### B.2.2.2 FFTF Project WBS Dictionary

The following pages contain the WBS dictionary for RL-MS01

| 1. Dictionary Title<br>Maintain Safe & Compliant Materials in Fast Flux Test Facility | | 2. Date<br>11 August 1998 | 3. PBS Number<br>RL-MS01 | 4. Dict Rev |
|---|---|---|---|---|
| 5. WBS No.<br>2.01.01.01.21.01.01.01 | 6. B & R No. | | 7. Baseline CR No. | |
| 8. Organization Name<br>FFTF Project | | | | |

9. Scope of Work

This WBS maintains the Fast Flux Test Facility and associated facilities in a standby condition while an evaluation is conducted of any future role that the facility might have in the Department's tritium and isotope production strategy.

The surveillance and maintenance (S&M) of facilities and plant systems will be performed to comply with federal and state safety requirements. Activities will include required project planning and management, operation and monitoring of plant systems and components, monitoring of regulated effluent streams, safeguarding nuclear materials, maintaining the design of the FFTF plant systems and components, and maintaining equipment and systems operational. In the standby condition, S&M of the FFTF shall have additional objectives to ensure that there is: (a) no degradation of key plant systems; (b) retention of the authorization basis and configuration control; (c) maintenance of key staffing, qualifications, and training.

Program planning activities include the preparation of budget documents, program plans, and schedules. Performance to these plans and schedules will be monitored and managed.

This WBS covers work necessary to support satisfying the following technical baseline requirements for the Hanford clean up mission:

- Spent fuels (light water reactor) shall be moved from the 400 Area interim storage to the Central Plateau Interim Storage

| 1. Dictionary Title<br>Remove Materials from FFTF | | 2. Date<br>17 August 1998 | 3. PBS Number<br>RL-MS01 | 4. Dict Rev |
|---|---|---|---|---|
| 5. WBS No.<br>2.01.01.01.21.01.01.02 | 6. B & R No. | | 7. Baseline CR No. | |
| 8. Organization Name<br>FFTF Project | | | | |

9. Scope of Work

This WBS provides those activities necessary for the removal of nuclear materials (unirradiated and irradiated fueled components) from the FFTF.

Offload all unusable fueled components from within FFTF and place them in interim storage. Offload unusable nonfueled components from within FFTF and ship them for disposal. Activities in these areas include: Oversee the procurement and testing of Interim Storage Casks (ISCs) and Core Component Casks (CCCs); prepare and approve detailed refueling plans and Interim Examination and Maintenance Cell (IEMC), and Examination and Decontaminated Services (EDS) work plans; perform necessary criticality evaluations; conduct operational readiness assessments; operate and maintain the refueling equipment; provide engineering, maintenance, and operations support for component handling, washing, packaging, and shipping operations; assemble FFTF fuel assembly data packages; preserve FFTF nuclear equipment performance data and documentation.

This WBS covers work necessary to support satisfying the following technical baseline requirements for the Hanford clean up mission:

- South 600 Area special nuclear materials shall be moved to the Central Plateau
- Nuclear materials shall be moved from the 400 Area to the Central Plateau
- 400 Area Nuclear materials shall be stabilized
- Complete commercial disposition and/or the acquisition of new facilities, modification of existing facilities, and/or modification of planned facilities necessary for storage, treatment/processing, and disposal/disposition of all Hanford Site UU.

  This target date includes all UU located in 300 Area fuel supply facilities (Uranium dioxide powder and pellets stored in cans, pins, assemblies, and drums), Uranium trioxide (UO3) powder stored in T-hoppers adjacent to the U-Plant, depleted UO3 stored in 55 gallon drums in the 200 West Area and the 4713 Building.

  Due Date: 12/31/2000

| 1. Dictionary Title<br>Maintain Safe & Compliant Fast Flux Test Facility in South 600 Areas | | 2. Date<br>11 August 1998 | 3. PBS Number<br>RL-MS01 | 4. Dict Rev |
|---|---|---|---|---|
| 5. WBS No.<br>2.01.01.01.21.01.01.03 | 6. B & R No. | | 7. Baseline CR No. | |
| 8. Organization Name<br>FFTF Project | | | | |

9. Scope of Work

During transition to shutdown, this WBS will provide surveillance and maintenance (S&M) of facilities and plant systems to comply with federal and state safety requirements. Activities will include required project planning and management, operation and monitoring of plant systems and components, monitoring of regulated effluent streams, safeguarding nuclear materials, maintaining the design of the FFTF plant systems and components, and maintaining equipment and systems operational.

This WBS covers work necessary to support satisfying the following technical baseline requirements for the Hanford clean up mission:

- South 600 Area gaseous effluent releases shall be monitored
- FFTF shall be maintained within the approved safety envelope

| 1. Dictionary Title<br>Transition the Fast Flux Test Facility | | 2. Date<br>10 August 1998 | 3. PBS Number<br>RL-MS01 | 4. Dict Rev |
|---|---|---|---|---|
| 5. WBS No.<br>2.01.01.01.21.01.01.04 | 6. B & R No. | | 7. Baseline CR No. | |
| 8. Organization Name<br>FFTF Project | | | | |

9. Scope of Work

This WBS will accomplish those activities which move the FFTF to an industrially and radiologically safe shutdown condition, once DOE has determined that the FFTF is no longer required for any future mission.

Activities will include removing unusable spent nuclear fuel components from the FFTF to dry cask storage. Irradiated, non-fueled components will also be removed from the FFTF and dispositioned for proper disposal. Any remaining, unirradiated fuel components will be removed for proper disposition. The fuel handling equipment will be maintained and upgraded, where appropriate, to ensure reliability.

Sodium and NaK systems will be drained, to the extent practical, to the tanks in the Sodium Storage Facility. Residual sodium will be protected under a blanket of non-reactive gas.

Reactor plant systems will be placed in a safe condition for long-term surveillance and maintenance pending final deactivation and decommissioning.

This WBS covers work necessary to support satisfying the following technical baseline requirements for the Hanford clean up mission:

- The stabilizing and reconfiguring facilities for minimum S&M including deactivation of non-essential utilities, process systems, and other facility systems; modification of facility safety, ventilation, monitoring, electrical, and utility systems; removal of resources and waste; and transfer of the facility to the ERC. Remaining active systems shall be capable of operation and statusing from a location outside the facility so only quarterly personnel entry is required. Facility electrical systems shall be reconfigured so only minimal portions can be operated as required to support personnel entry. All facility reconfiguration shall be performed under Occupational Safety and Health Administration construction requirements.
- Dispositioning facility inventories of SNM/NM/NF through the stabilization, treatment, packaging, temporary storage, documentation preparation, and transportation of these materials to another locations.
- Ensuring final facility configurations do not preclude D&D activities.

- Managing SNM/NM/NF material as follows:

  - Consolidating SNM/NM/NF materials early in the facility deactivation process to minimize the safety and compliance envelope. Where feasible, these materials shall be removed from the facility early in the deactivation process. When deactivation is complete, a facility shall no longer contain SNM/NM/NF.
  - Safely and compliantly storing SNM/NM/NF until a national policy on disposition is formulated. The SNM/NM/NF shall be transferred to other beneficial uses where possible. All NM held by DOE contractors shall be stored, transferred, and dispositioned in compliance with DOE guidance and federal, state, and local laws.
  - Continuing the current SNM/NM/NF safety and security approach, with necessary interim upgrades, until a preferred longer term approach is selected.
  - Continuing development and implementation of criteria for the receipt, storage, treatment, and disposition of SNM/NM/NF.
  - Continuing studies to determine the best alternatives for onsite material storage
  - Actively involving stakeholders in the development of long-term treatment, storage, and disposition plans through the NEPA process.
  - Delaying SNM/NM/NF treatment for ultimate disposition until final disposition for these materials is determined.

- High cost surplus facilties and systems shall be transitioned to a low cost, stable, deactivated condition.
- Facilities and systems shall be made available for other uses.
- 400 Area surplus facilties shall be transitioned to the surveillance and maintenance phase
- FFTF shall be transitioned to the surveillance and maintenance phase
- Complete transfer of irraditated fuel to dry cask storage. Due Date: 10/31/1998
- Complete transfer of unirraditated fuel to the Plutonium Finishing Plant. Due Date: 10/31/1998
- Complete transfer of special fuel to the Idaho National Engineering Laboratory for consolidated storage. Due Date: 10/31/1998
- Complete auxiliary systems deactivation. Due Date: 3/31/2001
- Complete Sodium storage facility startup. Due Date: 7/31/1998
- Complete FFTF Sodium drain. Due Date: 3/31/2000
- Complete PCB transformer disposal. Due Date:9/30/2001
- Complete commercial disposition and/or the acquisition of new facilities, modification of existing facilities, and/or modification of planned facilities necessary for storage, treatment/processing, and disposal/disposition of all Hanford Site UU.

  This target date includes all UU located in 300 Area fuel supply facilities (Uranium dioxide powder and pellets stored in cans, pins, assemblies, and drums), Uranium trioxide (UO3) powder stored in T-hoppers adjacent to the U-Plant, depleted UO3 stored in 55 gallon drums in the 200 West Area and the 4713 Building.

  Due Date: 12/31/2000
- The Contractor shall manage the stabilization/disposition of nuclear material, fuel, and hazardous materials, and the deactivation of the FFTF and associated systems to a condition ready for final disposition, reducing the risk and attain the lowest surveillance and maintenance cost. The Contractor shall complete the sodium removal, wash the fuel elements, and place the cleaned elements in dry casks for storage. The Contractor shall complete the deactivation of FFTF.

### B.2.2.3 FFTF Project Responsibility Assignment Matrix

| WBS Number | Title | Responsible Manager |
|---|---|---|
| 2.01.01.01.21.01 | FFTF Project | W. J. Apley, PNNL*<br>D. B. Klos, FDH*<br>E. F. Loika, BWHC |
| 2.01.01.01.21.01.01 | FFTF | E. F. Loika |
| 2.01.01.01.21.01.01.01 | Maintain Safe & Compliant Materials in Fast Flux Test Facility | E. F. Loika |
| 2.01.01.01.21.01.01.02 | Remove Materials from FFTF | E. F. Loika |
| 2.01.01.01.21.01.02.03 | Maintain Safe & Compliant Fast Flux Test Facility in South 600 Area | E. F. Loika |
| 2.01.01.01.21.01.02.04 | Transition the Fast Flux Test Facility | E. F. Loika |

*In accordance with Responsibility Accountability Matrix approved by DOE September 11, 1997. (DOE letter number 97-SPO-062)

| Activity ID | Activity Description | WBS | Orig Dur | Early Start | Early Finish | 1998 O N D | 1999 J F M A M J J A S O N D |
|---|---|---|---|---|---|---|---|
| **WORK FOR OTHERS** | | | | | | | |
| **HQ** | | | | | | | |
| **PHMC** | | | | | | | |
| **BWHC** | | | | | | | |
| **NON-EM** | | | | | | | |
| FFTF Project | | | | | | | |
| FFTF | | | | | | | |
| MAINTAIN SAFE & COMPLIANT MATERIALS IN FFTF | | | | | | | |
| PROJECT PLANNING INTEGRATION | | | | | | | |
| ART TPO PROGRAM MANAGEMENT | | | | | | | |
| AR1B1030 | TPO PROGRAM MANAGEMENT | 2.01.01.01.21.01.01.01.01. | 251 | 01OCT98* | 30SEP99 | | |
| ART PROJECT CONTROL/PLANNING/SCHEDULEING | | | | | | | |
| AR1B1033 | FFTF PLANNING/SCHEDULING | 2.01.01.01.21.01.01.01.02. | 251 | 01OCT98* | 30SEP99 | | |
| ART INTERGRATION MANAGEMENT | | | | | | | |
| AR1B1035 | FFTF INTERGRATION MGT. | 2.01.01.01.21.01.01.01.03. | 251 | 01OCT98* | 30SEP99 | | |
| ART SRID ADMINISTRATION | | | | | | | |
| AR1B1018 | FFTF SIRD ADMINISTRATION | 2.01.01.01.21.01.01.01.04. | 251 | 01OCT98* | 30SEP99 | | |
| ART STAND BY PROJECT SUPPORT | | | | | | | |
| AR1B1000 | FFTF EXECUTIVE DIRECTION & SUPPORT | 2.01.01.01.21.01.01.01.05. | 251 | 01OCT98* | 30SEP99 | | |
| MATERIAL & PROPERTY SECURITY (SAS) | | | | | | | |
| ART MATERIAL & PROPERTY SECURITY (SAS) | | | | | | | |
| AR1B1015 | FFTF SAFEGUARD & SECURITY | 2.01.01.01.21.01.01.02.01. | 251 | 01OCT98* | 30SEP99 | | |
| INVENTORY CONTROL | | | | | | | |
| ART SPARE PARTS INVENTORY | | | | | | | |
| AR1B130K | FFTF SPARE PART INVENTORY | 2.01.01.01.21.01.01.03.01. | 251 | 01OCT98* | 30SEP99 | | |

Project Start 01OCT97
Project Finish 30SEP04
Data Date 01OCT98
Run Date 03SEP98

Early Bar
Progress Bar
Critical Activity

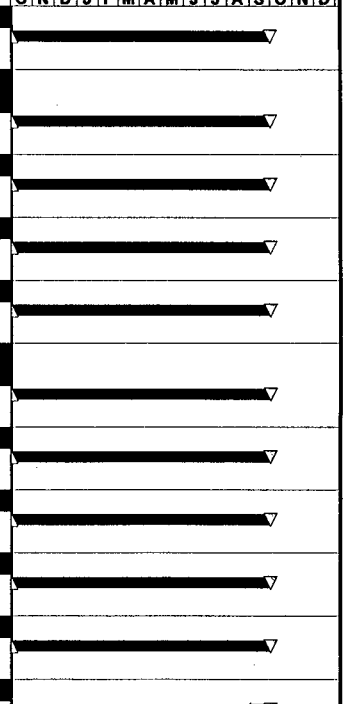
PMBS

B & W HANFORD CO.
FFTF PROJECT
EXECUTION YEAR PMBS

Sheet 1 of 3

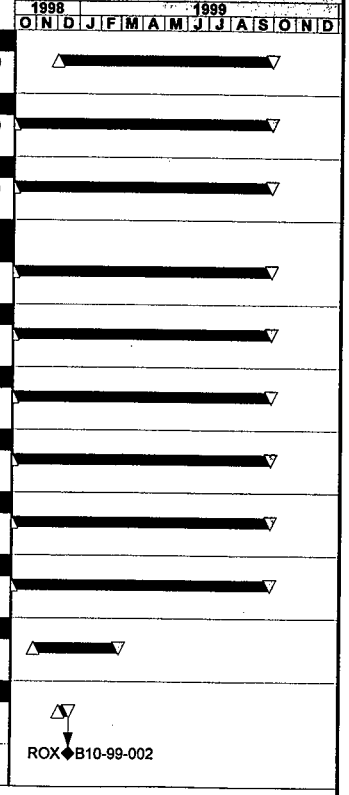
B&W Hanford Company
a Babcock and Wilcox company

| Activity ID | Activity Description | WBS | Orig Dur | Early Start | Early Finish |
|---|---|---|---|---|---|
| | ART SPARE PARTS WITHDRAWAL/RETURNS | | | | |
| AR1B130L | FFTF PARTS WITHDRAWAL/RETURN | 2.01.01.01.21.01.01.03.02. | 251 | 01OCT98* | 30SEP99 |
| | FFTF STANDBY OPERATIONS | | | | |
| | ART OPERATIONS MANAGEMENT & SUPPORT | | | | |
| AR1B1010 | FFTF OPES ADMIN/MGT | 2.01.01.01.21.01.01.04.01. | 251 | 01OCT98* | 30SEP99 |
| | ART OPES ANALYSIS & SUPPORT | | | | |
| AR1B1073 | FFTF ANALYSIS AND SUPPORT | 2.01.01.01.21.01.01.04.03. | 251 | 01OCT98* | 30SEP99 |
| | ART OPES TRAINING SUPPORT | | | | |
| AR1B1070 | FFTF TRAINING MGT/SUPPORT | 2.01.01.01.21.01.01.04.04. | 251 | 01OCT98* | 30SEP99 |
| | ART OPES POLICIES & PROCEDURES SUPPORT | | | | |
| AR1B1074 | FFTF POLICIES AND PROCEDURES | 2.01.01.01.21.01.01.04.05. | 251 | 01OCT98* | 30SEP99 |
| | SELF ASSESSMENTS & SUPPORT | | | | |
| | ART RADIOLOGICAL MAMAGEMENT SUPPORT | | | | |
| AR1B1045 | FFTF RADIOLOGICAL CONTROL SUPPORT | 2.01.01.01.21.01.01.05.01. | 251 | 01OCT98* | 30SEP99 |
| | ART ENVIRONMENTAL SUPPORT | | | | |
| AR1B1072 | FFTF ENVIRONMENTAL/WASTE | 2.01.01.01.21.01.01.05.02. | 251 | 01OCT98* | 30SEP99 |
| | ART SAMPLING & LAB SUPPORT | | | | |
| AR1B1172 | FFTF SAMPLING & LAB SUPPORT | 2.01.01.01.21.01.01.05.03. | 251 | 01OCT98* | 30SEP99 |
| | ART WASTE CHARACTERIZATION SUPPORT | | | | |
| AR1B1272 | FFTF WASTE CHARACTERIZATION | 2.01.01.01.21.01.01.05.04. | 251 | 01OCT98* | 30SEP99 |
| | ART POLLUTION PREVENTION SUPPORT | | | | |
| AR1B1372 | FFTF POLLUTION PREVENTION | 2.01.01.01.21.01.01.05.05. | 251 | 01OCT98* | 30SEP99 |
| | ART LLW DISPOSAL | | | | |
| AR1B1472 | FFTF LLW DISPOSAL | 2.01.01.01.21.01.01.05.06. | 21 | 01SEP99* | 30SEP99 |

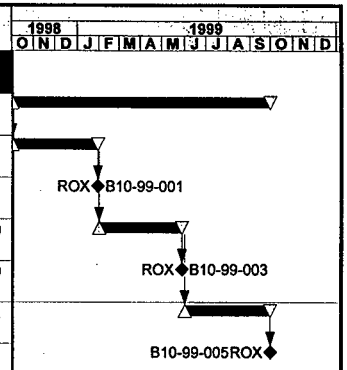



Sheet 2 of 5

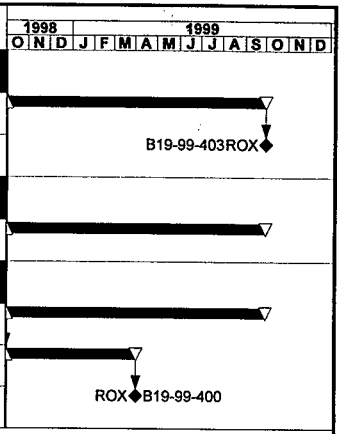
| Activity ID | Activity Description | WBS | Orig Dur | Early Start | Early Finish |
|---|---|---|---|---|---|
| ART WASTE DISPOSAL | | | | | |
| AR1B1572 | FFTF QUARTERLY WASTE DISPOSAL | 2.01.01.01.21.01.01.01.05.07. | 209 | 02DEC98* | 30SEP99 |
| ART SAFETY SUPPORT | | | | | |
| AR1B1080 | FFTF SAFETY SUPPORT | 2.01.01.01.21.01.01.01.05.08. | 251 | 01OCT98* | 30SEP99 |
| ART QUALITY ASSURANCE | | | | | |
| AR1B1040 | FFTF QUALITY ASSURANCE SUPPORT | 2.01.01.01.21.01.01.01.05.09. | 251 | 01OCT98* | 30SEP99 |
| MAINTAIN FFTF SYST DESIGN | | | | | |
| ART ENGINEERING MANAGEMENT SUPPORT | | | | | |
| AR1B130A | FFTF ENGINEERING MANAGEMENT | 2.01.01.01.21.01.01.01.06.01. | 251 | 01OCT98* | 30SEP99 |
| ART AUX SYSTEMS ELECTIRICAL ENG SUPPORT | | | | | |
| AR1B1024 | FFTF AUX SYSTEMS ELECTRICAL SUPPORT | 2.01.01.01.21.01.01.01.06.02. | 251 | 01OCT98* | 30SEP99 |
| ART MECHNICAL EQUIP & INSPECT SUPPORT | | | | | |
| AR1B1023 | FFTF MECHANICAL ENGINEERING SUPPORT | 2.01.01.01.21.01.01.01.06.03. | 251 | 01OCT98* | 30SEP99 |
| ART RSM ENGINEERING MANAGEMENT SUPPORT | | | | | |
| AR1B1022 | FFTF RSM ENGINEERING SUPPORT | 2.01.01.01.21.01.01.01.06.04. | 251 | 01OCT98* | 30SEP99 |
| ART RSB ROOF RECOATING & INSPECTION | | | | | |
| AR1B1123 | RSB ROOF RECOATING & INSPECTION | 2.01.01.01.21.01.01.01.06.05. | 251 | 01OCT98* | 30SEP99 |
| ART T196 AIR DRYER HARD PIPING | | | | | |
| AR1B1223 | FFTF T-196 AIR DRYER HARD PIPING | 2.01.01.01.21.01.01.01.06.06. | 251 | 01OCT98* | 30SEP99 |
| ART G-3 GENERATOR REPAIR/MATERIAL PURCHASESE | | | | | |
| AR1B102A | FFTF G-3 GENERATOR REPAIRS/ PURCHASE | 2.01.01.01.21.01.01.01.06.07. | 80 | 02NOV98* | 01MAR99 |
| G-3 FUEL OIL LEAK DETECTOR | | | | | |
| AR1B1025 | G-3 FUEL OIL TANK LEAK DETECTION | 2.01.01.01.21.01.01.01.06.08. | 12 | 07DEC98* | 22DEC98 |
| ARSE0078 | B10-99-002 G-3 FUEL OIL TANK LEAK DETECTOR | 2.01.01.01.21.01.01.01.06.08. | 0 | | 22DEC98 |



| Activity ID | Activity Description | WBS | Orig Dur | Early Start | Early Finish |
|---|---|---|---|---|---|
| FFTF MAINTENANCE | | | | | |
| ART MAINTENANCE SUPPORT | | | | | |
| AR1B1060 | FFTF MAINTENANCE SUPPORT | 2.01.01.01.21.01.01.01.07.01. | 251 | 01OCT98* | 30SEP99 |
| ARSN0750 | FY99 CORRECTIVE MAINTENCE 1ST PERIOD | 2.01.01.01.21.01.01.01.07.01. | 82 | 01OCT98 | 29JAN99 |
| ARSN0751 | B10-99-001 COMPLETE STANDBY WORKPHASE 99-1 | 2.01.01.01.21.01.01.01.07.01. | 0 | | 29JAN99 |
| ARSN0752 | FY99 CORRECTIVE MAINTENCE 2ND PERIOD | 2.01.01.01.21.01.01.01.07.01. | 84 | 01FEB99 | 28MAY99 |
| ARSN0753 | B10-99-103 COMPLETE STANDBY WORKPHASE 99-2 | 2.01.01.01.21.01.01.01.07.01. | 0 | | 28MAY99 |
| ARSN0754 | FY99 CORRECTIVE MAINTENCE 3RD PERIOD | 2.01.01.01.21.01.01.01.07.01. | 85 | 01JUN99 | 30SEP99 |
| ARSN0755 | B10-99-105 COMPLETE STANDBY WORKPHASE 99-3 | 2.01.01.01.21.01.01.01.07.01. | 0 | | 30SEP99 |
| FMEF | | | | | |
| ART FMEF S & M SUPPORT | | | | | |
| AR1B170A | FMEF S & M SUPPORT | 2.01.01.01.21.01.01.01.08.01. | 251 | 01OCT98* | 30SEP99 |
| REMOVE MATERIALS FROM FFTF | | | | | |
| FUEL HANDLING | | | | | |
| ART FUEL HANDLING SUPPORT | | | | | |
| AR1B1026 | FFTF FUEL HANDLING I & C SUPPORT | 2.01.01.01.21.01.01.02.01.02. | 251 | 01OCT98* | 30SEP99 |
| SWC | | | | | |
| ART SWC SUPPORT | | | | | |
| AR1B1032 | FFTF SWC ENGINEERING SUPPORT | 2.01.01.01.21.01.01.02.02.02. | 251 | 01OCT98* | 30SEP99 |
| ARSH160 | B19-99-404 SWC - PEP MILESTONE | 2.01.01.01.21.01.01.02.02.02. | 0 | | 30SEP99 |
| SHEAR ATP | | | | | |
| ART SHEAR ATP SUPPORT | | | | | |
| ARSH305 | B10-98-103 OBTAIN RRB RELEASE FOR OTA SHEAR | 2.01.01.01.21.01.01.02.03.01. | 0 | | 29SEP00* |



| Activity ID | Activity Description | WBS | Orig Dur | Early Start | Early Finish |
|---|---|---|---|---|---|
| CLEM UPGRADE | | | | | |
| CLEM UPGRADE SUPPORT | | | | | |
| AR1B1027 | FFTF CLEM UPGRADE SUPPORT | 2.01.01.01.21.01.01.02.04.01. | 251 | 01OCT98* | 30SEP99 |
| ARDE2015 | B19-99-403 CLOSED LOOP EX-VESSEL MACHINE | 2.01.01.01.21.01.01.02.04.01. | 0 | | 30SEP99 |
| FUEL HANDLING I&C ADMIN | | | | | |
| FUEL HANDLING I&C ADMIN SUPPORT | | | | | |
| AR1B1028 | FFTF IEMC & REFUELING ENGINEERING SUPPORT | 2.01.01.01.21.01.01.02.05.01. | 251 | 01OCT98* | 30SEP99 |
| SRS C1167 | | | | | |
| SRS C1167 SUPPORT | | | | | |
| AR1B102B | FFTF SRS C1167 SUPPORT | 2.01.01.01.21.01.01.02.06.01. | 251 | 01OCT98* | 30SEP99 |
| ARDE2240 | SRS C1167 - FINIALIZE SCREENS | 2.01.01.01.21.01.01.02.06.01. | 125 | 01OCT98 | 01APR99 |
| ARDE2245 | B19-99-400 DESIGN REVIEW FOR THE SRS UPGRADE | 2.01.01.01.21.01.01.02.06.01. | 0 | | 01APR99 |



| Activity ID | Activity Description | WBS | Orig Dur | Early Start | Early Finish | 1999 2000 2001 2002 2003 2004 |
|---|---|---|---|---|---|---|
| **WORK FOR OTHERS** | | | | | | |
| **HQ** | | | | | | |
| **PHMC** | | | | | | |
| **BWHC** | | | | | | |
| **NON-EM** | | | | | | |
| FFTF Project | | | | | | |
| FFTF | | | | | | |
| TRANSITION THE FFTF | | | | | | |
| ARA08 | M-81-02-T01 Submit sodium dispostion eval report | 2.01.01.01.21.01.01.04 | 0 | | 30OCT98* | ◆B17-98-107FOX |
| ARA27 | M-81-00-T02, Compl trans of irradiated fuel, dry | 2.01.01.01.21.01.01.04 | 0 | | 31OCT98* | ◆B19-99-301FOX |
| ARA30 | M-81-00-T03, Compl trans of unirradiated fuel to | 2.01.01.01.21.01.01.04 | 0 | | 31OCT98* | ◆B19-99-302FOX |
| ARA33 | M-81-00-T04, Compl Transfer of Spec Fuel to INEL | 2.01.01.01.21.01.01.04 | 0 | | 31OCT98* | ◆B19-99-303FOX |
| ARA42 | M-81-04-T01, Compl reactor & heat trans sys sod | 2.01.01.01.21.01.01.04 | 0 | | 30OCT98* | ◆B19-98-401FOX |
| ARA51 | M-81-04-T02, Compl interim decay storage/fuel so | 2.01.01.01.21.01.01.04 | 0 | | 31DEC98* | ◆B19-99-401FOX |
| ARA54 | M-81-04, COMPLETE FFTF SODIUM DRAIN | 2.01.01.01.21.01.01.04 | 0 | | 31MAR00* | FOX◆B19-00-401 |
| ARA66 | M-81-00-T05, Complete auxiliary systems deact | 2.01.01.01.21.01.01.04 | 0 | | 31MAR01* | FOX◆B19-01-501 |
| ARA69 | M-81-05, Submit FFTF S&M Plan | 2.01.01.01.21.01.01.04 | 0 | | 30JUN01* | FOX◆B17-01-101 |
| ARA72 | M-81-06, COMPLETE PCB TRANSFORMER DISPOSAL | 2.01.01.01.21.01.01.04 | 0 | | 30SEP01* | FOX◆B19-01-502 |
| ARA75 | M-81-00, COMPL FFTF TRANS & INITIATE S&M PHSE | 2.01.01.01.21.01.01.04 | 0 | | 31DEC01* | FGX◆B17-02-101 |
| ARA93 | M-81-03, Submit FFTF end point criteria document | 2.01.01.01.21.01.01.04 | 0 | | 31DEC98* | ◆B17-99-102FGX |

Project Start 01OCT97
Project Finish 30SEP04
Data Date 01OCT98
Run Date 05SEP98

Early Bar
Progress Bar
Critical Activity

PMBS

B & W HANFORD CO.
FFTF TPA MILESTONES
BEING RENEGOTIATED

Sheet 1 of 2

B&W Hanford Company
a Babcock & Wilcox company

| Activity ID | Activity Description | WBS | Orig Dur | Early Start | Early Finish | 1999 2000 2001 2002 2003 2004 |
|---|---|---|---|---|---|---|
| ARA96 | M-20-29A, Submit sod storage/reaction fac closur | 2.01.01.01.21.01.01.04 | 0 | | 31DEC99* | FGX◆B17-00-101 |

Sheet 2 of 2

MYWP/SSPP PLANNING MILESTONE LIST
REPORTING PERIOD 10/01/97 TO 12/31/2049



| MILESTONE CONTROL # | TPA-MS NUMBER | TPA TYPE | MS LEVEL | MS TITLE | TYPE | -------DATES-------- PLANNED BASELINE | TPA/DNFSB COMMIT | DNFSB | TIP | PBS # |
|---|---|---|---|---|---|---|---|---|---|---|
| B19-98-401 | M-81-04-T01 | T | FO | COMPLETE REACTOR AND HEAT TRANSPORT SYSTEM SODIUM DRAIN | OTH | 4/30/98 | | N | N | RL-MS01 |
| B17-98-107 | M-81-02-T01 | T | FO | SUBMIT SODIUM DISPOSITION EVALUATION REPORT/DECISION POINT | OTH | 6/30/98 | | N | N | RL-MS01 |
| B10-99-001 | | | RL | COMPLETE STANDBY WORKPHASE 99-1 | | 1/31/99 | | N | N | RL-MS01 |
| B19-99-400 | | | RL | DESIGN REVIEW FOR THE SODIUM REMOVAL SYSTEM UPGRADE | | 4/01/99 | | N | N | RL-MS01 |
| B19-99-403 | | | RL | CLOSED LOOP EX-VESSEL MACHINE CONTROL SYSTEM UPGRADE | | 9/30/99 | | N | N | RL-MS01 |
| B19-99-404 | | | RL | UPGRADE THE SOLID WASTE CASK (SWC) | | 9/30/99 | | N | N | RL-MS01 |
| B10-99-002 | | | RL | G-3 FUEL OIL TANK LEAK DETECTION | | 12/22/98 | | N | N | RL-MS01 |
| B10-99-003 | | | RL | COMPLETE STANDBY WORKPHASE 99-2 | | 5/31/99 | | N | N | RL-MS01 |
| B10-99-005 | | | RL | COMPLETE STANDBY WORKPHASE 99-3 | | 9/30/99 | | N | N | RL-MS01 |
| B19-01-501 | M-81-00-T05 | T | FO | COMPLETE AUXILIARY SYSTEMS DEACTIVATION | OTH | 3/31/01 | | N | N | RL-MS01 |
| B17-01-101 | M-81-05 | I | FO | SUBMIT FFTF SURVEILLANCE AND MAINTENANCE PLAN | EA | 6/30/01 | 6/30/01 | N | N | RL-MS01 |
| B10-98-103 | | | RL | OBTAIN RRB RELEASE FOR OTA SHEAR OPERATION | OTH | 9/30/00 | 10/09/98 | N | N | RL-MS01 |
| B19-99-301 | M-81-00-T02 | T | FO | COMPLETE TRANSFER OF IRRADIATED FUEL TO DRY CASK STORAGE | OTH | 10/22/98 | 10/31/98 | N | N | RL-MS01 |
| B19-99-302 | M-81-00-T03 | T | FO | COMPLETE TRANSFER OF UNIRRADIATED FUEL TO PFP | OTH | 10/22/98 | 10/31/98 | N | N | RL-MS01 |
| B17-00-101 | M-20-29A | I | FO | SUBMIT SODIUM STORAGE FACILITY & SODIUM REACTION FACIL CLOSURE PL | EA | 12/31/99 | 12/31/49 | N | N | RL-MS01 |
| B19-99-303 | M-81-00-T04 | T | FO | COMPLETE TRANSFER OF SPECIAL FUEL TO INEL FOR STORAGE | OTH | 10/22/98 | 10/31/98 | N | N | RL-MS01 |
| B19-99-401 | M-81-04-T02 | T | FO | COMPLETE INTERIM DECAY STORAGE/FUEL STORAGE FACILITY SODIUM DRAIN | OTH | 12/31/98 | 12/31/98 | N | N | RL-MS01 |
| B19-00-401 | M-81-04 | I | FO | COMPLETE FFTF SODIUM DRAIN | EA | 3/14/00 | 3/31/00 | N | N | RL-MS01 |
| B19-01-502 | M-81-06 | I | FO | COMPLETE PCB TRANSFORMER DISPOSAL | EA | 9/30/01 | 9/30/01 | N | N | RL-MS01 |
| B17-99-102 | M-81-03 | I | FO | SUBMIT FFTF END POINT CRITERIA DOCUMENT | EA | 12/31/98 | 12/31/98 | N | N | RL-MS01 |
| B17-02-101 | M-81-00 | M | FO | COMPLETE FFTF TRANSITION AND INITIATE THE S&M PHASE | EA | 12/31/01 | 12/31/01 | N | N | RL-MS01 |

# PHMC

# MILESTONE DESCRIPTION SHEET

| | | |
|---|---|---|
| **Title:** COMPLETE REACTOR AND HEAT TRANSPORT SYSTEM SODIUM DRAIN | | **Date:** 9/09/98 |
| **Assigned To:** TM Burke | | **CIN:** |
| **Program WBS Designator:** 2.1.1.1.21.1.1 | | **Due Date:** 4/30/98 |
| **PBS No:** RL-MS01 | | |
| **MC #:** B19-98-401 | **TPA No:** M-81-04-T01 | **Rev:** 0 |

| MILESTONE LEVEL: | MILESTONE TYPE: | DNFSB STATUS: | DELIVERABLE: | ADDRESS TO: |
|---|---|---|---|---|
| DOE-HQ<br>DOE-RL<br>X DOE-FO<br>CONTRACTOR | EA<br>PEG<br>X OTHER<br>TIP | DNFSB (Y/N): N<br>COMMIT #:<br>RECOMM #: | Report<br>Letter<br>Drawing(s)<br>X Other (Specify)<br>Complete Sodium Drain | DOE-HQ<br>DOE-RL<br>Other (Specify) |

**Milestone Description:**
THE REACTOR AND PRIMARY AND SECONDARY HEAT TRANSPORT SYSTEM SODIUM COOLANT AND SUPPORTING SODIUM SYSTEMS WILL BE MAINTAINED IN A SAFE CONFIGURATION, MOLTEN AND CIRCULATING UNTIL THE FUEL IS REMOVED FROM THE FFTF REACTOR VESSEL AND THE SODIUM STORAGE FACILITY IS OPERATIONAL. THE SODIUM WILL THEN BE DRAINED TO THE TANKS LOCATED IN THE SODIUM STORAGE FACILITY AND ALLOWED TO FREEZE.

**Description of what constitutes completion of this milestone:**
This milestone documents the completion of the reactor and heat transport system sodium drain.
ATP and review by the TRRT.

# PHMC

# MILESTONE DESCRIPTION SHEET

| | | |
|---|---|---|
| **Title:** SUBMIT SODIUM DISPOSITION EVALUATION REPORT/DECISION POINT | | **Date:** 9/09/98 |
| **Assigned To:** DL Nielsen | | **CIN:** |
| **Program WBS Designator:** 2.1.1.1.21.1.1 | | **Due Date:** 6/30/98 |
| **PBS No:** RL-MS01 | | |
| **MC #:** B17-98-107 | **TPA No:** M-81-02-T01 | **Rev:** 0 |

| MILESTONE LEVEL: | MILESTONE TYPE: | DNFSB STATUS: | DELIVERABLE: | ADDRESS TO: |
|---|---|---|---|---|
| DOE-HQ<br>DOE-RL<br>X DOE-FO<br>CONTRACTOR | EA<br>PEG<br>X OTHER<br>TIP | DNFSB (Y/N): N<br>COMMIT #:<br>RECOMM #: | X Report<br>Letter<br>Drawing(s)<br>Other (Specify) | DOE-HQ<br>DOE-RL<br>X Other (Specify) |

**Milestone Description:**
COMPLETE AN EVALUATION OF THE ACCEPTABLE SODIUM PRODUCT FORM FOR THE TWRS TANK SLUDGE PRETREATMENT PROCESS (I.E., CAUSTIC WASHING). THIS EVALUATION WILL BE CONDUCTED IN CONCERT WITH TWRS TPA MILESTONE M-50-03 (DUE DATE MARCH 31, 1998). THE FFTF EVALUATION WILL ADDRESS OTHER CONVERSION OPTIONS FOR DISPOSAL OF THE SODIUM IF THE PRODUCT USE FOR TWRS IS NOT VIABLE. REGARDLESS OF WHICH OPTION IS SELECTED, A NEW SODIUM REACTION FACILITY WILL BE CONSTRUCTED ADJACENT TO THE SODIUM STORAGE FACILITY TO CONVERT THE BULK METALLIC SODIUM TO THE APPROPRIATE CHEMICAL FORM. THIS INCLUDES A DECISION ON THE FINAL DISPOSITION OF THE SODIUM (E.G., DISPOSAL OR REUSE). APPROPRIATE MILESTONES AND TARGET DATES WILL BE ESTABLISHED FOR CONSTRUCTION AND OPERATION OF THE SODIUM REACTION FACILITY BASED ON THE OPTION SELECTED.

**Description of what constitutes completion of this milestone:**
Submit the required report.

# PHMC
# MILESTONE DESCRIPTION SHEET

| | | |
|---|---|---|
| **Title:** COMPLETE STANDBY WORKPHASE 99-1 | | **Date:** 9/09/98 |
| **Assigned To:** GJ Boehnke | | **CIN:** |
| **Program WBS Designator:** 2.1.1.1.21.1.1 | | **Due Date:** 1/31/99 |
| **PBS No:** RL-MS01 | | |
| **MC #:** B10-99-001 | **TPA No:** | **Rev:** 0 |

| MILESTONE LEVEL: | MILESTONE TYPE: | DNFSB STATUS: | DELIVERABLE: | ADDRESS TO: |
|---|---|---|---|---|
| DOE-HQ<br>X DOE-RL<br>DOE-FO<br>CONTRACTOR | EA<br>PEG<br>OTHER<br>TIP | DNFSB (Y/N): N<br>COMMIT #:<br>RECOMM #: | Report<br>X Letter<br>Drawing(s)<br>Other (Specify) | DOE-HQ<br>X DOE-RL<br>Other (Specify) |

**Milestone Description:**
Complete work scope associated with 'maintaining health of facility' by accomplishing defined surveillance and maintenance work scope, e. g., required surveillances, PM/ICRS packages, designated corrective maintenance, and modification work. The work scope will be defined and managed in accordance with A-33, WORK PRIORITIZATION AND SCHEDULING. This procedure defines the process used by the Management Review Board (MRB) to approve the initial phase work scope and to approve changes during the phase.
For the time period 10/1/98 through 1/31/99, the FFTF staff will:
Define the initial work scope in accordance with A-33. Formally transmit a letter to FDH and RL listing the work documents comprising the initial work scope and requesting RL approval. This letter will be

**Description of what constitutes completion of this milestone:**
Completion of the milestone is demonstrated by completing a number of work documents equal to or greater than the number defined by the MRB at the beginning of the phase. This number will be clearly stated in the letter formally transmitted to FDH and RL at the beginning of the phase.
Upon completion of the phase, a letter will be formally transmitted to FDH and RL documenting the work completed during that phase. Successful completion of the milestone requires that an equal or greater number of work documents were completed during the phase than those defined at its beginning. In addition, the work scope must be managed in accordance with the requirements established in A-33. This letter must be transmitted within five working days after the completion of the phase (2/8/99).

# PHMC

# MILESTONE DESCRIPTION SHEET

Continuation Page

**Program WBS Designator:** 2.1.1.1.21.1.1 **MC #:** B10-99-001

**Milestone description: (con't)**
transmitted within five working days from the beginning of the phase (10/7).

Manage the work scope during the phase in accordance with A-33. (The MRB will approve additions and deletions to the scope as authorized in A-33.)

Complete the required surveillances and PM/ICRS packages at their required frequencies.

Complete a number of work documents equal to or greater than the number in the originally defined scope for the phase.

# PHMC

# MILESTONE DESCRIPTION SHEET

| | | |
|---|---|---|
| **Title:** DESIGN REVIEW FOR THE SODIUM REMOVAL SYSTEM UPGRADE | | **Date:** 9/09/98 |
| **Assigned To:** GN Ruge | | **CIN:** |
| **Program WBS Designator:** 2.1.1.1.21.1.1 | | **Due Date:** 4/01/99 |
| **PBS No:** RL-MS01 | | |
| **MC #:** B19-99-400 | **TPA No:** | **Rev:** 0 |

| MILESTONE LEVEL: | MILESTONE TYPE: | DNFSB STATUS: | DELIVERABLE: | ADDRESS TO: |
|---|---|---|---|---|
| DOE-HQ<br>X DOE-RL<br>DOE-FO<br>CONTRACTOR | EA<br>PEG<br>OTHER<br>TIP | DNFSB (Y/N): N<br>COMMIT #:<br>RECOMM #: | Report<br>X Letter<br>Drawing(s)<br>Other (Specify) | DOE-HQ<br>X DOE-RL<br>Other (Specify) |

**Milestone Description:**
Complete the design of upgrades to the Interim Examination and Maintenance (IEM) Cell Sodium Removal System (SRS) control system, panel C-1167. The upgrades will enhance the man-machine interface, the system reliability and maintainability, and the safety of performing maintenance. The definitive design shall be developed and a design review conducted in accordance with applicable engineering design procedures.

**Description of what constitutes completion of this milestone:**
The design review shall be completed and documented in a final design review report. Completion of the milestone shall be documented by letter to the RL-SPO.

# PHMC

# MILESTONE DESCRIPTION SHEET

| | | |
|---|---|---|
| **Title:** CLOSED LOOP EX-VESSEL MACHINE CONTROL SYSTEM UPGRADE | | **Date:** 9/09/98 |
| **Assigned To:** GN Ruge | | **CIN:** |
| **Program WBS Designator:** 2.1.1.1.21.1.1 | | **Due Date:** 9/30/99 |
| **PBS No:** RL-MS01 | | |
| **MC #:** B19-99-403 | **TPA No:** | **Rev:** 0 |

| MILESTONE LEVEL: | MILESTONE TYPE: | DNFSB STATUS: | DELIVERABLE: | ADDRESS TO: |
|---|---|---|---|---|
| DOE-HQ<br>X DOE-RL<br>DOE-FO<br>CONTRACTOR | EA<br>PEG<br>OTHER<br>TIP | DNFSB (Y/N): N<br>COMMIT #:<br>RECOMM #: | Report<br>X Letter<br>Drawing(s)<br>Other (Specify) | DOE-HQ<br>X DOE-RL<br>Other (Specify) |

**Milestone Description:**
The computerized controls for the Closed Loop Ex-Vessel Machine (CLEM) are aged and require replacement to ensure reliable, maintainable operation. This upgrade will replace the computers, monitors, and related equipment required to operate the machine reliably.
This task includes the completion of the definitive design, software development, and procurement and fabrication of required hardware. This equipment will be installed on the CLEM per FFTF work package 4F-97-2305/M. Testing is not included as a part of this milestone.

**Description of what constitutes completion of this milestone:**
Complete field work per FFTF work package 4F-97-2305/M. Completion of this milestone shall be documented by letter to the RL-SPO.

# PHMC

# MILESTONE DESCRIPTION SHEET

| | | |
|---|---|---|
| **Title:** UPGRADE THE SOLID WASTE CASK (SWC) | | **Date:** 9/09/98 |
| **Assigned To:** SW Hiller | | **CIN:** |
| **Program WBS Designator:** 2.1.1.1.21.1.1 | | **Due Date:** 9/30/99 |
| **PBS No:** RL-MS01 | | |
| **MC #:** B19-99-404 | **TPA No:** | **Rev:** 0 |

| MILESTONE LEVEL: | MILESTONE TYPE: | DNFSB STATUS: | DELIVERABLE: | ADDRESS TO: |
|---|---|---|---|---|
| DOE-HQ<br>X DOE-RL<br>DOE-FO<br>CONTRACTOR | EA<br>PEG<br>OTHER<br>TIP | DNFSB (Y/N): N<br>COMMIT #:<br>RECOMM #: | Report<br>X Letter<br>Drawing(s)<br>Other (Specify) | DOE-HQ<br>X DOE-RL<br>Other (Specify) |

**Milestone Description:**
Complete the design, procurement, and shop fabrication of the SWC hoist and grapple systems.

**Description of what constitutes completion of this milestone:**
The status of the SWC upgrade shall be reported to the RL-SPO by letter, documenting that the above activities are complete.

# PHMC

# MILESTONE DESCRIPTION SHEET

| | | |
|---|---|---|
| **Title:** G-3 FUEL OIL TANK LEAK DETECTION | | **Date:** 9/09/98 |
| **Assigned To:** SH CROW | | **CIN:** |
| **Program WBS Designator:** 2.1.1.1.21.1.1 | | **Due Date:** 12/22/98 |
| **PBS No:** RL-MS01 | | |
| **MC #:** B10-99-002 | **TPA No:** | **Rev:** 0 |

| MILESTONE LEVEL: | MILESTONE TYPE: | DNFSB STATUS: | DELIVERABLE: | ADDRESS TO: |
|---|---|---|---|---|
| DOE-HQ<br>X DOE-RL<br>DOE-FO<br>CONTRACTOR | EA<br>PEG<br>OTHER<br>TIP | DNFSB (Y/N): N<br>COMMIT #:<br>RECOMM #: | Report<br>X Letter<br>Drawing(s)<br>Other (Specify) | DOE-HQ<br>X DOE-RL<br>Other (Specify) |

**Milestone Description:**
The Washington Administrative Code, section 173-360-310, Underground Storage Tank Regulations, requires that existing, underground, fuel oil storage tanks for emergency generators comply with new underground storage tank system requirements by December 22, 1998.
The G-3 fuel oil tank, T-303, will be upgraded by the installation of a level sensing system equipped with a high-level alarm per modification work document 4F-97-117M. This will complete the required field modification.

**Description of what constitutes completion of this milestone:**
Completion of the field work per modification work document 4F-97-117M shall be reported to the RL-SPO by letter.

# PHMC

# MILESTONE DESCRIPTION SHEET

| | | |
|---|---|---|
| **Title:** COMPLETE STANDBY WORKPHASE 99-2 | | **Date:** 9/09/98 |
| **Assigned To:** GJ Boehnke | | **CIN:** |
| **Program WBS Designator:** 2.1.1.1.21.1.1 | | **Due Date:** 5/31/99 |
| **PBS No:** RL-MS01 | | |
| **MC #:** B10-99-003 | **TPA No:** | **Rev:** 0 |

| MILESTONE LEVEL: | MILESTONE TYPE: | DNFSB STATUS: | DELIVERABLE: | ADDRESS TO: |
|---|---|---|---|---|
| DOE-HQ<br>X DOE-RL<br>DOE-FO<br>CONTRACTOR | EA<br>PEG<br>OTHER<br>TIP | DNFSB (Y/N): N<br>COMMIT #:<br>RECOMM #: | Report<br>X Letter<br>Drawing(s)<br>Other (Specify) | DOE-HQ<br>X DOE-RL<br>Other (Specify) |

**Milestone Description:**
Complete work scope associated with 'maintaining health of facility' by accomplishing defined surveillance and maintenance work scope, e. g., required surveillances, PM/ICRS packages, designated corrective maintenance, and modification work. The work scope will be defined and managed in accordance with A-33, WORK PRIORITIZATION AND SCHEDULING. This procedure defines the process used by the Management Review Board (MRB) to approve the initial phase work scope and to approve changes during the phase.
For the time period 2/1/99 through 5/31/99, the FFTF staff will:
Define the initial work scope in accordance with A-33.
Formally transmit a letter to FDH and RL listing the work documents comprising the initial work scope and requesting RL approval. This letter

**Description of what constitutes completion of this milestone:**
Completion of the milestone is demonstrated by completing a number of work documents equal to or greater than the number defined by the MRB at the beginning of the phase. This number will be clearly stated in the letter formally transmitted to FDH and RL at the beginning of the phase.
Upon completion of the phase, a letter will be formally transmitted to FDH and RL documenting the work completed during that phase. Successful completion of the milestone requires that an equal or greater number of work documents were completed during the phase than those defined at its beginning. In addition, the work scope must be managed in accordance with the requirements established in A-33. This letter must be transmitted within five working days after the completion of the phase (6/7/99).

# PHMC

# MILESTONE DESCRIPTION SHEET

Continuation Page

**Program WBS Designator:** 2.1.1.1.21.1.1 **MC #:** B10-99-003

**Milestone description: (con't)**
will be transmitted within five working days from the beginning of the phase (2/8/99).

Manage the work scope during the phase in accordance with A-33. (The MRB will approve additions and deletions to the scope as authorized in A-33.)

Complete the required surveillances and PM/ICRS packages at their required frequencies.

Complete a number of work documents equal to or greater than the number in the originally defined scope for the phase.

# PHMC

# MILESTONE DESCRIPTION SHEET

| | | |
|---|---|---|
| **Title:** COMPLETE STANDBY WORKPHASE 99-3 | | **Date:** 9/09/98 |
| **Assigned To:** GJ Boehnke | | **CIN:** |
| **Program WBS Designator:** 2.1.1.1.21.1.1 | | **Due Date:** 9/30/99 |
| **PBS No:** RL-MS01 | | |
| **MC #:** B10-99-005 | **TPA No:** | **Rev:** 0 |

| MILESTONE LEVEL: | MILESTONE TYPE: | DNFSB STATUS: | DELIVERABLE: | ADDRESS TO: |
|---|---|---|---|---|
| DOE-HQ<br>X DOE-RL<br>DOE-FO<br>CONTRACTOR | EA<br>PEG<br>OTHER<br>TIP | DNFSB (Y/N): N<br>COMMIT #:<br>RECOMM #: | Report<br>X Letter<br>Drawing(s)<br>Other (Specify) | DOE-HQ<br>X DOE-RL<br>Other (Specify) |

**Milestone Description:**
Complete work scope associated with 'maintaining health of facility' by accomplishing defined surveillance and maintenance work scope, e. g., required surveillances, PM/ICRS packages, designated corrective maintenance, and modification work. The work scope will be defined and managed in accordance with A-33, WORK PRIORITIZATION AND SCHEDULING. This procedure defines the process used by the Management Review Board (MRB) to approve the initial phase work scope and to approve changes during the phase.
For the time period 6/1/99 through 9/30/99, the FFTF staff will:
Define the initial work scope in accordance with A-33.
Formally transmit a letter to FDH and RL listing the work documents comprising the initial work scope and requesting RL approval. This letter

**Description of what constitutes completion of this milestone:**
Completion of the milestone is demonstrated by completing a number of work documents equal to or greater than the number defined by the MRB at the beginning of the phase. This number will be clearly stated in the letter formally transmitted to FDH and RL at the beginning of the phase.
Upon completion of the phase, a letter will be formally transmitted to FDH and RL documenting the work completed during that phase. Successful completion of the milestone requires that an equal or greater number of work documents were completed during the phase than those defined at its beginning. In addition, the work scope must be managed in accordance with the requirements established in A-33. This letter must be transmitted within five working days after the completion of the phase (10/7/99).

# PHMC

# MILESTONE DESCRIPTION SHEET

Continuation Page

**Program WBS Designator:** 2.1.1.1.21.1.1 **MC #:** B10-99-005

**Milestone description: (con't)**
will be transmitted within five working days from the beginning of the phase (6/7/99).

Manage the work scope during the phase in accordance with A-33. (The MRB will approve additions and deletions to the scope as authorized in A-33.)

Complete the required surveillances and PM/ICRS packages at their required frequencies.

Complete a number of work documents equal to or greater than the number in the originally defined scope for the phase.

# PHMC

# MILESTONE DESCRIPTION SHEET

| | | |
|---|---|---|
| **Title:** COMPLETE TRANSFER OF IRRADIATED FUEL TO DRY CASK STORAGE | | **Date:** 9/24/96 |
| **Assigned To:** S. V. Doebler | | **CIN:** |
| **Program WBS Designator:** 2.1.1.1.21.1.1 | | **Due Date:** 10/22/98 |
| **PBS No:** RL-MS01 | | |
| **MC #:** B19-99-301 | **TPA No:** M-81-00-T02 | **Rev:** |

| **MILESTONE LEVEL:** | **MILESTONE TYPE:** | **DNFSB STATUS:** | **DELIVERABLE:** | **ADDRESS TO:** |
|---|---|---|---|---|
| DOE-HQ<br>DOE-RL<br>X DOE-FO<br>CONTRACTOR | EA<br>PEG<br>X OTHER<br>TIP | DNFSB (Y/N): N<br>COMMIT #:<br>RECOMM #: | Report<br>Letter<br>Drawing(s)<br>X Other (Specify)<br>Project Status Report | DOE-HQ<br>X DOE-RL<br>Other (Specify) |

**Milestone Description:**
THE IRRADIATED FUEL ASSEMBLIES AND PIN CONTAINERS WILL BE TRANSFERRED FROM THE INTERIM DECAY STORAGE VESSEL AND THE FUEL STORAGE FACILITY TO THE IEM CELL FOR RESIDUAL SODIUM REMOVAL, LOADED INTO A CORE COMPONENT CONTAINER, TRANSFERRED TO THE REACTOR SERVICE BUILDING CASK LOADING STATION FOR PLACEMENT INTO AN INTERIM STORAGE CASK FOR DRY STORAGE, AND TRANSFERRED TO THE INTERIM STORAGE AREA LOCATED IN THE NORTHEAST CORNER OF THE FFTF COMPLEX.

**Description of what constitutes completion of this milestone:**
This milestone documents the completion of the irradiated FFTF fuel transfer to dry cask storage in the 400 Area Interim Storage Area.

# PHMC

# MILESTONE DESCRIPTION SHEET

| Title: COMPLETE TRANSFER OF UNIRRADIATED FUEL TO PFP | | Date: 9/24/96 |
|---|---|---|
| Assigned To: S. V. Doebler | | CIN: |
| Program WBS Designator: 2.1.1.1.21.1.1 | | Due Date: 10/22/98 |
| PBS No: RL-MS01 | | |
| MC #: B19-99-302 | TPA No: M-81-00-T03 | Rev: |

| MILESTONE LEVEL: | MILESTONE TYPE: | DNFSB STATUS: | DELIVERABLE: | ADDRESS TO: |
|---|---|---|---|---|
| DOE-HQ<br>DOE-RL<br>X DOE-FO<br>CONTRACTOR | EA<br>PEG<br>X OTHER<br>TIP | DNFSB (Y/N): N<br>COMMIT #:<br>RECOMM #: | Report<br>Letter<br>Drawing(s)<br>X Other (Specify)<br>Project Status Report | DOE-HQ<br>X DOE-RL<br>Other (Specify) |

**Milestone Description:**
THIRTY TWO UNIRRADIATED FUEL ASSEMBLIES PRESENTLY STORED IN THE INTERIM DECAY STORAGE VESSEL WILL BE TRANSFERRED TO THE IEM CELL FOR WASHING AND DRYING, LOADED INTO EXISTING APPROVED SHIPPING CONTAINERS, AND TRANSFERRED TO AN APPROPRIATE STORAGE AREA IN THE PLUTONIUM FINISHING PLANT.

**Description of what constitutes completion of this milestone:**
This milestone documents the completion of the transfer of unirradiated fuel to the Plutonium Finishing Plant.

# PHMC

# MILESTONE DESCRIPTION SHEET

| Title: SUBMIT SODIUM STORAGE FACILITY & SODIUM REACTION FACIL CLOSURE PL | | Date: 9/24/96 |
|---|---|---|
| Assigned To: R. K. Hulvey | | CIN: |
| Program WBS Designator: 2.1.1.1.21.1.1 | | Due Date: 12/31/99 |
| PBS No: RL-MS01 | | |
| MC #: B17-00-101 | TPA No: M-20-29A | Rev: |

| MILESTONE LEVEL: | MILESTONE TYPE: | DNFSB STATUS: | DELIVERABLE: | ADDRESS TO: |
|---|---|---|---|---|
| DOE-HQ<br>DOE-RL<br>X DOE-FO<br>CONTRACTOR | X EA<br>PEG<br>OTHER<br>TIP | DNFSB (Y/N): N<br>COMMIT #:<br>RECOMM #: | Report<br>X Letter<br>Drawing(s)<br>Other (Specify) | DOE-HQ<br>X DOE-RL<br>Other (Specify) |

**Milestone Description:**
Submit Sodium Storage Facility and Sodium Reaction Facility closure plan or request for procedural closure as defined in Section 6.3.3 of this Tri-Party Agreement to EPA and Ecology.

**Description of what constitutes completion of this milestone:**
If the sodium use for TWRS is confirmed, a request for procedural closure as defined in Section 6.3.3 of the Tri-Party Agreement will be submitted for the Sodium Storage Facility and the Sodium Reaction Facility units. If the sodium is determined to be a waste, a closure plan will be submitted for the two units.

# PHMC

# MILESTONE DESCRIPTION SHEET

| | | |
|---|---|---|
| **Title:** COMPLETE TRANSFER OF SPECIAL FUEL TO INEL FOR STORAGE | | **Date:** 9/24/96 |
| **Assigned To:** S. V. Doebler | | **CIN:** |
| **Program WBS Designator:** 2.1.1.1.21.1.1 | | **Due Date:** 10/22/98 |
| **PBS No:** RL-MS01 | | |
| **MC #:** B19-99-303 | **TPA No:** M-81-00-T04 | **Rev:** |

| MILESTONE LEVEL: | MILESTONE TYPE: | DNFSB STATUS: | DELIVERABLE: | ADDRESS TO: |
|---|---|---|---|---|
| DOE-HQ<br>DOE-RL<br>X DOE-FO<br>CONTRACTOR | EA<br>PEG<br>X OTHER<br>TIP | DNFSB (Y/N): N<br>COMMIT #:<br>RECOMM #: | Report<br>Letter<br>Drawing(s)<br>X Other (Specify)<br>Project Status Report | DOE-HQ<br>X DOE-RL<br>Other (Specify) |

**Milestone Description:**
SODIUM-BONDED IRRADIATED METAL AND CARBIDE FUEL PINS FROM ASSEMBLIES CLEANED AND DISASSEMBLED IN THE IEM CELL WILL BE LOADED INTO EXISTING, APPROVED SHIPPING CASKS, AND TRANSPORTED TO THE IDAHO NATIONAL ENGINEERING LABORATORY IN IDAHO FALLS, IDAHO, FOR CONSOLIDATED STORAGE. ONE UNIRRADIATED METAL FUEL ASSEMBLY WILL ALSO BE DISPOSITIONED IN A SIMILAR MANNER.

**Description of what constitutes completion of this milestone:**
This milestone documents the completion of the transfer of the special fuel to Idaho Nuclear Engineering Laboratory (INEL). Note: There is currently a Concent Order which delays shipping this special fuel to INEL until after December 31, 2000.

# PHMC

# MILESTONE DESCRIPTION SHEET

| | | |
|---|---|---|
| **Title:** COMPLETE INTERIM DECAY STORAGE/FUEL STORAGE FACILITY SODIUM DRAIN | | **Date:** 9/24/96 |
| **Assigned To:** T. M. Burke | | **CIN:** |
| **Program WBS Designator:** 2.1.1.1.21.1.1 | | **Due Date:** 12/31/98 |
| **PBS No:** RL-MS01 | | |
| **MC #:** B19-99-401 | **TPA No:** M-81-04-T02 | **Rev:** |

| MILESTONE LEVEL: | MILESTONE TYPE: | DNFSB STATUS: | DELIVERABLE: | ADDRESS TO: |
|---|---|---|---|---|
| DOE-HQ<br>DOE-RL<br>X DOE-FO<br>CONTRACTOR | EA<br>PEG<br>X OTHER<br>TIP | DNFSB (Y/N): N<br>COMMIT #:<br>RECOMM #: | Report<br>X Letter<br>Drawing(s)<br>Other (Specify) | DOE-HQ<br>X DOE-RL<br>Other (Specify) |

**Milestone Description:**
THE INTERIM DECAY STORAGE VESSEL AND FUEL STORAGE FACILITY SODIUM WILL BE MAINTAINED IN A MOLTEN STATE UNTIL THE FUEL IS REMOVED FROM THESE STORAGE LOCATIONS. THE SODIUM WILL THEN BE DRAINED TO THE TANKS LOCATED IN THE SODIUM STORAGE FACILITY AND ALLOWED TO FREEZE.

**Description of what constitutes completion of this milestone:**
The Interim Decay Storage Vessel and the Fuel Storage Facility Vessel have had all fueled components removed and the sodium drained to the extent practical in accordance with the End Point Criteria Checklist.

# PHMC
# MILESTONE DESCRIPTION SHEET

| | | |
|---|---|---|
| **Title:** COMPLETE FFTF SODIUM DRAIN | | **Date:** 9/24/96 |
| **Assigned To:** T. M. Burke | | **CIN:** |
| **Program WBS Designator:** 2.1.1.1.21.1.1 | | **Due Date:** 3/14/00 |
| **PBS No:** RL-MS01 | | |
| **MC #:** B19-00-401 | **TPA No:** M-81-04 | **Rev:** |

| MILESTONE LEVEL: | MILESTONE TYPE: | DNFSB STATUS: | DELIVERABLE: | ADDRESS TO: |
|---|---|---|---|---|
| DOE-HQ<br>DOE-RL<br>X DOE-FO<br>CONTRACTOR | X EA<br>PEG<br>OTHER<br>TIP | DNFSB (Y/N): N<br>COMMIT #:<br>RECOMM #: | Report<br>X Letter<br>Drawing(s)<br>Other (Specify) | DOE-HQ<br>X DOE-RL<br>Other (Specify) |

**Milestone Description:**
THIS MILESTONE WILL BE COMPLETE WHEN ALL OF THE SODIUM COOLANT HAS BEEN DRAINED FROM THE PLANT TO THE NEW SODIUM STORAGE FACILITY TO THE MAXIMUM PRACTICAL EXTENT. THE SODIUM RESIDUALS THAT REMAIN ARE INTEGRAL TO THE SYSTEM, ARE SOLID IN FORM, AND ADHERE TO THE SURFACES OF THE SYSTEM COMPONENTS. THE RESIDUALS WILL BE MAINTAINED UNDER AN INERT GAS BLANKET TO MINIMIZE POTENTIAL REACTIONS DURING THE LONG-TERM SURVEILLANCE AND MAINTENANCE PHASE. DURING FINAL DISPOSITION OF THE FACILITY, ANY REGULATED WASTES GENERATED FROM THE CLEANING OR DISMANTLEMENT OF THESE SYSTEMS, WILL BE APPROPRIATELY MANAGED.

**Description of what constitutes completion of this milestone:**
The Heat Transport Systems, the reactor vessel, the IDS vessel, and the Fuel Storage Facility, as well as supporting sodium systems, have been drained to the extent practical, in accordance with the End Point Criteria Checklist.

# PHMC
# MILESTONE DESCRIPTION SHEET

| | | |
|---|---|---|
| **Title:** COMPLETE PCB TRANSFORMER DISPOSAL | | **Date:** 9/24/96 |
| **Assigned To:** S. H. Crow | | **CIN:** |
| **Program WBS Designator:** 2.1.1.1.21.1.1 | | **Due Date:** 9/30/01 |
| **PBS No:** RL-MS01 | | |
| **MC #:** B19-01-502 | **TPA No:** M-81-06 | **Rev:** |

| MILESTONE LEVEL: | MILESTONE TYPE: | DNFSB STATUS: | DELIVERABLE: | ADDRESS TO: |
|---|---|---|---|---|
| DOE-HQ<br>DOE-RL<br>X DOE-FO<br>CONTRACTOR | X EA<br>PEG<br>OTHER<br>TIP | DNFSB (Y/N): N<br>COMMIT #:<br>RECOMM #: | Report<br>X Letter<br>Drawing(s)<br>Other (Specify) | DOE-HQ<br>X DOE-RL<br>Other (Specify) |

**Milestone Description:**
THE NINETEEN POLYCHLORINATED BIPHENYL (PCB) ELECTRICAL TRANSFORMERS AT THE FFTF WILL BE DISPOSED OF AFTER THE TRANSFORMERS ARE REMOVED FROM SERVICE. TWELVE OF THE NINETEEN TRANSFORMERS, WILL BE DRAINED, FLUSHED AND REMOVED FROM FFTF WITHIN THIRTY DAYS AFTER BEING REMOVED FROM SERVICE AS SPECIFIED IN 40 CFR 761. SEVEN OF THE TRANSFORMERS, WHICH ARE IN AREAS THAT ARE DIFFICULT TO OBTAIN ACCESS, WILL BE DRAINED, FLUSHED AND REMOVED FROM FFTF WITHIN NINE MONTHS OF CESSATION OF SERVICE TO ENSURE THEIR DISPOSAL WITHIN ONE YEAR FROM THE START OF STORAGE. CESSATION OF SERVICE CONSTITUTES THE START OF THE STORAGE, AND 40 CFR 761 LIMITS THIS STORAGE AND SUBSEQUENT DISPOSAL TO A ONE-YEAR PERIOD.

**Description of what constitutes completion of this milestone:**
Nineteen PCB cooled/insulated transformers are removed from the FFTF for disposal.

# PHMC

# MILESTONE DESCRIPTION SHEET

| | | |
|---|---|---|
| **Title:** SUBMIT FFTF END POINT CRITERIA DOCUMENT | | **Date:** 9/24/96 |
| **Assigned To:** D. A. Gantt | | **CIN:** |
| **Program WBS Designator:** 2.1.1.1.21.1.1 | | **Due Date:** 12/31/98 |
| **PBS No:** RL-MS01 | | |
| **MC #:** B17-99-102 | **TPA No:** M-81-03 | **Rev:** |

| MILESTONE LEVEL: | MILESTONE TYPE: | DNFSB STATUS: | DELIVERABLE: | ADDRESS TO: |
|---|---|---|---|---|
| DOE-HQ<br>DOE-RL<br>X DOE-FO<br>CONTRACTOR | X EA<br>PEG<br>OTHER<br>TIP | DNFSB (Y/N): N<br>COMMIT #:<br>RECOMM #: | X Report<br>Letter<br>Drawing(s)<br>Other (Specify) | DOE-HQ<br>X DOE-RL<br>Other (Specify) |

**Milestone Description:**
A DOCUMENT IDENTIFYING THE END POINT CRITERIA NECESSARY TO PLACE THE FFTF IN A SAFE AND STABLE CONFIGURATION WILL BE DEVELOPED. THIS DOCUMENT WILL BE PROVIDED TO EPA AND ECOLOGY FOR REVIEW, AND APPROVAL FOR THE HAZARDOUS SUBSTANCES PROPOSED TO REMAIN AT THE FACILITY.

**Description of what constitutes completion of this milestone:**
Submit End Point Criteria Document to Ecology.

# PHMC

# MILESTONE DESCRIPTION SHEET

| | | | | |
|---|---|---|---|---|
| **Title:** COMPLETE FFTF TRANSITION AND INITIATE THE S&M PHASE | | | | **Date:** 9/24/96 |
| **Assigned To:** R. K. Hulvey | | | | **CIN:** |
| **Program WBS Designator:** 2.1.1.1.21.1.1 | | | | **Due Date:** 12/31/01 |
| **PBS No:** RL-MS01 | | | | |
| **MC #:** B17-02-101 | | **TPA No:** M-81-00 | | **Rev:** |

| **MILESTONE LEVEL:** | **MILESTONE TYPE:** | **DNFSB STATUS:** | **DELIVERABLE:** | **ADDRESS TO:** |
|---|---|---|---|---|
| DOE-HQ<br>DOE-RL<br>X DOE-FO<br>CONTRACTOR | X EA<br>PEG<br>OTHER<br>TIP | DNFSB (Y/N): N<br>COMMIT #:<br>RECOMM #: | Report<br>X Letter<br>Drawing(s)<br>Other (Specify) | DOE-HQ<br>X DOE-RL<br>Other (Specify) |

**Milestone Description:**
This major milestone will be achieved by completion of all activities necessary to achieve the end point criteria for placing the facility in a safe and stable surveillance and maintenance mode.

**Description of what constitutes completion of this milestone:**
The End Point Criteria Checklist has been completed and the Surveillance and Maintenance Plan has been implemented.

EXHIBIT 1a

# FAST FLUX TEST FACILITY
## LIFE CYCLE COST BASELINE (BCWS) BY YEAR BY FUND TYPE
## BY PROJECT BASELINE SUMMARY (PBS)
## FY 1999
## ($000s)

| PROJECT WBS: | 2.0.1 |
|---|---|
| PBS NO: | RL-MS01 |
| PBS TITLE: | FFTF |

| FUND TYPE | FY1997 | FY1998 | FY1999 | FY2000 | FY2001 | FY2002 | FY2003 | FY2004 | FY2005 | FY2006 | SUBTOT FY1997-FY2006 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OPERATING EXPENSE | 31,100 | - | 41,005 | - | - | - | - | - | - | - | 72,105 |
| | | | | | | | | | | | |
| CENRTC | - | - | - | - | - | - | - | - | - | - | - |
| | | | | | | | | | | | |
| GENERAL PLANT PROJECT | - | - | - | - | - | - | - | - | - | - | - |
| | | | | | | | | | | | |
| LINE ITEM *(List Each One)* | | | | | | | | | | | |
| 0 | - | - | | - | - | - | - | - | - | - | - |
| 0 | - | - | | - | - | - | - | - | - | - | - |
| 0 | - | - | | - | - | - | - | - | - | - | - |
| 0 | - | - | | - | - | - | - | - | - | - | - |
| 0 | - | - | | - | - | - | - | - | - | - | - |
| 0 | - | - | | - | - | - | - | - | - | - | - |
| *Subtotal Line Items* | - | - | | - | - | - | - | - | - | - | - |
| Escalation | - | - | | - | - | - | - | - | - | - | - |
| *TOTAL BCWS/PMB*[1] | 31,100 | | 41,005 | | | | | | | | 72,105 |
| | | | | | | | | | | | |
| MGMT RESERVE[2] | - | - | | - | - | - | - | - | - | - | - |
| | | | | | | | | | | | |
| LINE ITEM CONTINGENCY[2] | - | - | | - | - | - | - | - | - | - | - |
| | | | | | | | | | | | |
| TRANSFERS[3] | - | - | 162 | - | - | - | - | - | - | - | 162 |
| | | | | | | | | | | | |
| *Subtotal* | - | - | 162 | - | - | - | - | - | - | - | 162 |
| Escalation | - | - | - | - | - | - | - | - | - | - | - |
| TOTAL | 31,100 | | 41,167 | | | | | | | | 72,267 |

[1]Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB); Expense Carryover is Not Included

[2]Management Reserve and Line Item Contingency Held by RL

[3]Funds/Workscope Transferred to Other Sites, Transferred to Hanford from Other Sites, and/or Funds/Workscope Controlled by RL.

EXHIBIT 1a

# FAST FLUX TEST FACILITY
## LIFE CYCLE COST BASELINE (BCWS) BY YEAR BY FUND TYPE
## BY PROJECT BASELINE SUMMARY (PBS)
## FY 1999
## ($000s)

| PROJECT WBS: | 2.0.1 |
|---|---|
| PBS NO: | RL-MS01 |
| PBS TITLE: | FFTF |

| FUND TYPE | FY2007 | FY2008 | FY2009 | FY2010 | FY2011-FY2015 | FY2016-FY2020 | FY2021-FY2025 | FY2026-FY2030 | FY2031-FY2035 | FY2036 FY2040 | FY2041-FY2045 | FY2046 FY2050 | TOTAL FY1997-FY2050 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OPERATING EXPENSE | - | - | - | - | - | - | - | - | - | - | - | - | 72,105 |
| CENRTC | - | - | - | - | - | - | - | - | - | - | - | - | - |
| GENERAL PLANT PROJECT | - | - | - | - | - | - | - | - | - | - | - | - | - |
| LINE ITEM *(List Each One)* | | | | | | | | | | | | | |
| 0 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 0 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 0 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 0 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 0 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 0 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| *Subtotal Line Items* | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Escalation | - | - | - | - | - | - | - | - | - | - | - | - | - |
| *TOTAL BCWS/PMB*[1] | - | - | - | - | - | - | - | - | - | - | - | - | 72,105 |
| MGMT RESERVE[2] | - | - | - | - | - | - | - | - | - | - | - | - | - |
| LINE ITEM CONTINGENCY[2] | - | - | - | - | - | - | - | - | - | - | - | - | - |
| TRANSFERS[3] | - | - | - | - | - | - | - | - | - | - | - | - | 162 |
| *Subtotal* | - | - | - | - | - | - | - | - | - | - | - | - | 162 |
| Escalation | - | - | - | - | - | - | - | - | - | - | - | - | - |
| *TOTAL* | - | - | - | - | - | - | - | - | - | - | - | - | 72,267 |

[1]Budgeted Cost of Work Scheduled (BCWS) Equals Performance Measurement Baseline (PMB); Expense Carryover is Not Included

[2]Management Reserve and Line Item Contingency Held by RL

[3]Funds/Workscope Transferred to Other Sites, Transferred to Hanford from Other Sites, and/or Funds/Workscope Controlled by RL.

Rev. 1

# FAST FLUX TEST FACILITY

## BUDGET AUTHORITY (B/A) BY YEAR BY FUND TYPE
## BY PROJECT BASELINE SUMMARY (PBS)
## FY 1999
## ($000s)

| PROJECT WBS: | 2.0.1 | |
|---|---|---|
| PBS NO: | RL-MS01 | |
| PBS TITLE: | FFTF | |
| FUND TYPE | TARGET B/A FY1998 | PRESIDENT'S BUDGET PLUS CARRYOVER FY1999 |
| OPERATING EXPENSE | - | 41,200 |
| | | |
| CENRTC | - | |
| | | |
| GENERAL PLANT PROJECT | - | |
| | | |
| LINE ITEM *(List Each One)* | | |
| 0 | - | |
| 0 | - | |
| 0 | - | |
| 0 | - | |
| 0 | - | |
| 0 | - | |
| *Subtotal Line Items* | - | |
| | | |
| *TOTAL NEW B/A* | - | 41,200 |
| | | |
| ESTIMATED FY 1998 CARRYOVER | | |
| | | |
| *TOTAL NEW B/A+CARRYOVER* | - | 41,200 |

[1]Estimated Carryover Is NOT Included In Cost Baseline; Change Request For Actual Carryover Submitted After September 30, 1998.

## C. Supplemental Information

# FY 1999-2000 Project Priority Lists

| UAS ID | EM Office | PBS # | UAS Name | 1999 | 1999LI | 2000 | 2000LI | PS | WS | EP |
|---|---|---|---|---|---|---|---|---|---|---|
| **Advanced Reactors** | | | | | | | | | | |
| 476 | EM60 | TP11 | ESPC -- 337 Highbay Steam | $98 | | $98 | | | | |
| 2 | EM60 | TP11 | Advanced Reactors Transition [ART] Min Safe (Nuclear Energy [NE] Legacies, 309 Bldg) | $1,132 | | $1,210 | | L | H | L |
| | | | Subtotal - Min Safe | $1,230 | $0 | $1,308 | $0 | | | |
| 405 | EM60 | TP11 | Advanced Reactor Fee | $110 | | $110 | | NA | NA | NA |
| | | | Subtotal - Essential Services | $1,340 | $0 | $1,418 | $0 | | | |
| 3 | EM60 | TP11 | 309/PRTR Deactivation | $567 | | $1,362 | | L | L | L |
| 4 | EM60 | TP11 | Nuclear Energy [NE] Legacy Deactivation | | | $1,438 | | L | M | L |
| | | | Subtotal - Additional Rqmts | $1,907 | $0 | $2,210 | $0 | | | |

PERFORMANCE ENHANCEMENT WORKSHEET

## ITEM 1

**Part I**

| PROJ: ADVANCED REACTORS TRANSITION<br>PBS: RL-TP11<br>DESCRIPTION OF ENHANCEMENT OPPORTUNITY | Ranges<br>ROM-<br>PROBABILITY<br>OF SUCCESS(%) | | ROM ESTIMATED<br>LIFE CYCLE<br>SAVINGS ($Millions) | | FUNDING REQUIRED<br>TO INVESTIGATE<br>OPPORTUNITY ($Thous) | WBS#(s) WHERE<br>FUNDING IS REQUIRED |
|---|---|---|---|---|---|---|
| Full funding for 309 Building/PRTR deactivation scope would allow this work to be completed within one year instead of stretching over three years, as currently budgeted. This would save two years of surveillance and maintenance costs. | 90 | 100 | $1 | $2 | | |
| | | | | | | |
| Total | | | $1 | $2 | $0 | |

**Part II**

**STEPS/SCHEDULE TO ACCOMPLISH PART I ENHANCEMENTS**

| | Activity Description | Dates<br>Start | Complete | BCR Required?<br>Yes | No |
|---|---|---|---|---|---|
| 1 | Budget full deactivation funding ($2.4M) into the site baseline & IPL for FY 2001. | 10/1/98 | 6/30/99 | | X |
| 2 | Revise out-year baseline to include full funded deactivation and turnover to BHI in FY 2001 | 6/30/99 | 8/31/99 | X | |
| 3 | Perform remaining PRTR Deactivation | 10/1/00 | 9/30/01 | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |

## ITEM 2

**Part I**

| PROJ: ADVANCED REACTORS TRANSITION<br>PBS:<br>DESCRIPTION OF ENHANCEMENT OPPORTUNITY | Ranges<br>ROM-<br>PROBABILITY<br>OF SUCCESS(%) | | ROM ESTIMATED<br>LIFE CYCLE<br>SAVINGS ($Millions) | | FUNDING REQUIRED<br>TO INVESTIGATE<br>OPPORTUNITY ($Thous) | WBS#(s) WHERE<br>FUNDING IS REQUIRED |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| Total | | | $0 | $0 | $0 | |

**Part II**

**STEPS/SCHEDULE TO ACCOMPLISH PART I ENHANCEMENTS**

| | Activity Description | Dates<br>Start | Complete | BCR Required?<br>Yes | No |
|---|---|---|---|---|---|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |

## PERFORMANCE ENHANCEMENT WORKSHEET

### ITEM 3

**Part I**

| PROJ: / PBS: / DESCRIPTION OF ENHANCEMENT OPPORTUNITY | Ranges: ROM- PROBABILITY OF SUCCESS(%) | ROM ESTIMATED LIFE CYCLE SAVINGS ($Millions) | FUNDING REQUIRED TO INVESTIGATE OPPORTUNITY ($Thous) | WBS#(s) WHERE FUNDING IS REQUIRED |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| Total | | $0 $0 | $0 | |

**Part II**

**STEPS/SCHEDULE TO ACCOMPLISH PART I ENHANCEMENTS**

| | Activity Description | Dates: Start | Dates: Complete | BCR Required? Yes | BCR Required? No |
|---|---|---|---|---|---|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |

### ITEM 4

**Part I**

| PROJ: 0 / PBS: / DESCRIPTION OF ENHANCEMENT OPPORTUNITY | Ranges: ROM- PROBABILITY OF SUCCESS(%) | ROM ESTIMATED LIFE CYCLE SAVINGS (Millions) | FUNDING REQUIRED TO INVESTIGATE OPPORTUNITY ($Thous) | WBS#(s) WHERE FUNDING IS REQUIRED |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| Total | | $0 $0 | $0 | |

**Part II**

**STEPS/SCHEDULE TO ACCOMPLISH PART I ENHANCEMENTS**

| | Activity Description | Dates: Start | Dates: Complete | BCR Required? Yes | BCR Required? No |
|---|---|---|---|---|---|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |

# Performance Objectives and Measures

## Advanced Reactors Transition Mission

| HSP Success Indicator/ Critical Success Factor | Strategic Outcome/Goal | Performance Objective | Output/Metric | EM Management Commitment | FY 1999 | FY 2000 | FY 2001 | FY 97-06 | End Point Target |
|---|---|---|---|---|---|---|---|---|---|
| **TP11** Reduced risk; reduced inventory; reduced mortgages; increased land available | FacilitiesTransition goal | Maintain the FFTF in a safe and compliant standby condition. The condition of the plant hardware, software and personnel will be preserved in a manner not to preclude a plant restart. | SNF fuel stabilized during the period m3 | No | | | | 2.4 | 2.4 |
| | | | SNF fuel stabilized during the period MTHM | No | | | | 1.81 | 1.81 |
| | | Transition 300 Area contaminated facilities to low risk, low cost surveillance & maintenance state | Clean out the balance of the PRTR containment | No 9/28/01 | | | | | |
| | | | Clean sodium residuals from two drained storage tanks previously removed from 221-T | No 9/28/01 | | | | | |
| | | | Facilities, final completion of decommissioning | No | | | | 2 | 2 |
| | | | Facilities/buildings deactivated during the period | Yes | | | | 3 | 3 |
| | | | Facilities/buildings deactivated during the period/Complete disposition of Hanford Site non-radioactive sodium | No 7/30/04 | | | | 3 | 3 |

# Performance Objectives and Measures

## Advanced Reactors Transition Mission

| HSP Success Indicator/ Critical Success Factor | Strategic Outcome/Goal | Performance Objective | Output/Metric | EM Management Commitment | FY 1999 | FY 2000 | FY 2001 | FY 97-06 | End Point Target |
|---|---|---|---|---|---|---|---|---|---|
| TP11 Reduced risk; reduced inventory; reduced mortgages; increased land available | FacilitiesTransition goal | Transition 300 Area contaminated facilities to low risk, low cost surveillance & maintenance state | Facilities/buildings not yet deactivated | No | | 4 | 4 | 4 | |
| | | | Facilities/buildings deactivated during the period/Deactive 309 Building | Yes 9/30/03 | | | | 1 | 1 |
| | | | Hazardous waste disposal, on-site commercial m3 | No | | 2 | | 2 | 2 |
| | | | Remove insulation from 309 Building dome | No 9/30/99 | | | | | |

# Performance Objectives and Measures

## Fast Flux Test Facility Mission

| HSP Success Indicator/ Critical Success Factor | Strategic Outcome/Goal | Performance Objective | Output/Metric | EM Management Commitment | FY 1999 | FY 2000 | FY 2001 | FY 97-06 | End Point Target |
|---|---|---|---|---|---|---|---|---|---|
| **MS01**<br>Reduced risk; reduced inventory; reduced mortgages; increased land available | Facilities Transition goal | Maintain the FFTF in a safe and compliant standby condition. The condition of the plant hardware, software and personnel will be preserved in a manner not to preclude a plant restart. | Complete maintenance activities associated with "maintaining health of the facility." Specific activities will be defined at the start of each of the three consecutive four-month periods. | No<br>9/30/99 | | | | | |

# 1.0 PBS RL-TP11, ADVANCED REACTORS TRANSITION

Changes from the FY 1998 MYWP (as revised by BCRs):
Deactivation activities for 309 Building and for NE Legacies sodium test loops are suspended for FY 2000 due to priorities being below the funded level in the IPL. Activities are assumed to be funded again in FY 2001. This results in an additional one-year delay in project completion.

## 2.0 Outcomes Based on Proposed Updates

- EM Management Commitments:
  There are no existing EM Management Commitments associated with this PBS.

- PBS Performance Metrics
  Deactivation dates for the 309 Building and the NE Legacy sodium test loops will slip by an additional year.

| | | | |
|---|---|---|---|
| 309 Building is: Oct01 | Proposed: | Oct02 | (1 facility) |
| NE Legacies is: Jul03 | Proposed: | Jul04 | (3 facilities) |

- FY 1999 Interim End Points
  $0.5M will be available for deactivation work (D&C) at the 309 Bldg. The proposed priority is to remove the asbestos containing insulation from the outside of the dome during this fiscal year. Based on preliminary cost estimates, there will be little funding available for contingency.

## 3.0 Technical Changes – Based on Proposed Updates

- Technical Requirements
  There are NO CHANGES to the technical requirements.

- Technical Workscope
  There are NO CHANGES to the technical workscope.

## 4.0 Schedule Changes – Based on Proposed Updates

- Regulatory, DNFSB, and/or HQ Milestones

  TPA Target milestone M-92-11-T01, due March 2002 will be completed no sooner than July 2004. As a "Target" milestone, there is no enforcement action associated with this delay.

- Affected Project Interfaces

  RL-TP14, 300 Area Revitalization, will not receive the 337 Highbay, 335, and 3718M Buildings until October 2004. (Was scheduled October 2003.)

  RL-ER05, Surveillance and Maintenance, will not receive the 309 Building until October 2002. (Was scheduled October 2001.)

- Potential Slippages of Scheduled Activities as a Result of the BUG

  Schedule changes are due to the low priority for requested D&C funding in FY 2000. The minimal D&C funding for FY 1999, as provided for in the BUG, was previously identified in the FY 1998 MYWP.

## 5.0 Cost – Based on Proposed Updates

- Costs as a Result of Items 2 through 4

  The lack of D&C funding in FY 2000 will result in an added, total project cost of approximately $1.4M, primarily for an additional year of surveillance and maintenance.

## 6.0 Funding

- As a result of updates to expected available funds, what strategy/path forward do you recommend for any updates to the current life-cycle baseline?

  FY 1999 funding and BCWS are consistent with that projected in the FY 1998 MYWP.

  FY 2000 funding is anticipated to be limited to S&M and essential services , $1,418K, vs. the $4,152K budgeted in the FY 1998 MYWP.

  Path forward:
  - Reassess site priorities to determine how many years these facilities may be held in the current status, prior to completing deactivation.
  - Attempt to gain increased D&C funding for the 309 Building in the FY 2001 budget process.
  - Although relatively low cost projects, the low risks and low mortgage reduction (<$750k/yr) associated with these projects mitigate against near-term funding to completion.

## 7.0 Key Areas of Focused Emphasis

- Performance Objectives and Performance Metrics
  See listing in section C.3.1 of this MYWP.
- Performance Enhancements
  It is probable that the 309 Building deactivation could be completed in a single year, saving lifecycle S&M costs. Further assessment of this possibility will be pursued.
- Technical Issues Management List (TIML) Issues
  There are no TIML Issues associated with this PBS.
- Technology Insertion Points
  There are no identified technology issues related to these activities.

## 1.0 PBS RL-MS01 FFTF

Changes from the FY 1998 MYWP (as revised by BCRs):
The FFTF will remain in Standby throughout FY 1999, rather than beginning an EIS, as was assumed in the FY 1998 MYWP. Pseudo-PBS number RL-MS01 is assigned to allow tracking of this NE funded work within the site integration systems.

## 2.0 Outcomes Based on Proposed Updates

- EM Management Commitments:
  Not applicable; this project is funded from DOE-NE

- PBS Performance Metrics
  Not Applicable.

- FY 1999 Interim End Points
  Complete work scope associated with "maintaining the health of the facility." An initial list of specific work to be accomplished in this area will be defined for each four month period and approved by RL-SPO.

  Complete repairs/upgrades to the Solid Waste Cask (SWC) hoist through the completion of fabrication and complete the grapple system design.

  Complete field installation of control system upgrades for the Closed Loop Ex-Vessel Machine.

  Complete design of control system upgrades for the Sodium Removal System.

## 3.0 Technical Changes – Based on Proposed Updates

- Technical Requirements
  There are NO CHANGES to the technical requirements.

- Technical Workscope
  The SWC repair is new detail in the effort to preserve equipment operable for a potential restart, and, as necessary, for resumption of transition to shutdown.

## 4.0 Schedule Changes – Based on Proposed Updates

- Regulatory, DNFSB, and/or HQ Milestones

  Deferral of the M-81 series of milestones is still pending final approval of TPA Change M-81-97-01A.

- Affected Project Interfaces

  None. FFTF Standby was initiated in FY 1997.

- Potential Slippages of Scheduled Activities as a Result of the BUG

  As described above. The BUG, section C.10 directs that the "FFTF is to remain in 'standby'..."

## 5.0 Cost – Based on Proposed Updates

- Costs as a Result of Items 2 through 4

  FY 1999 costs will be $41.0M. Lifecycle costs are indeterminate due to the lack of a clear mission direction.

## 6.0 Funding

- As a result of updates to expected available funds, what strategy/path forward do you recommend for any updates to the current life-cycle baseline?

  Life-cycle baseline cannot be determined until a mission decision has been made by DOE-HQ.

## 7.0 Key Areas of Focused Emphasis

- Performance Objectives and Performance Metrics
  Maintain the FFTF in a safe and compliant standby condition. The condition of the plant hardware, software, and personnel shall be maintained in a manner not to preclude a plant restart.

- Performance Enhancements
  None identified.

- Technical Issues Management List (TIML) Issues
  TWRS milestone M-50-03 confirmed advanced pretreatment will not be required. If FFTF is shutdown, the baseline will be developed considering the use of FFTF sodium to produce sodium hydroxide for tank waste pretreatment.

- Technology Insertion Points
  There are no identified technology issues related to these activities.

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