Liquid Effluent FY 1996 Program Plan WBS 1.2.2.1

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FY 1996 Program Plan Approval Sheet

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LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

TABLE OF CONTENTS

ACRONYM LIST	iv
1.0 HANFORD STRATEGIC PLAN GOALS/MISSION PLAN	1-1
2.0 PROGRAM OVERVIEW	2-1
2.1 PROGRAM MISSION	2-3
Program Management	2-3
Interfaces with other Hanford Programs	2-4
Systems Engineering	2-5
200 Area Liquid Effluents Facilities (LEF) Operations	2-5
200 Area ETF Operations	2-6
200 Area TEDF Operations	2-7
300 Area Liquid Effluents Facilities (LEF) Operations	2-8
300 Area TEDF Operations	2-8
340 Waste Handling Facility/307 Basins Operations	2-10
Project W-302, 340 Facility Replacement	2-12
Project W-353, "300 Area Diverter Stations Upgrade"	2-12
Phase II Streams (W-252)	2-12
Miscellaneous Streams	2-13
2.2 PROGRAM STRATEGY	2-15
2.2.1 Technical Functions/Requirements	2-16
Systems Engineering Implementation	2-16
Comparison to Sitewide Systems Engineering Functions and Requirements	2-17
Technical Requirements	2-18
2.2.2 Program Objectives	2-21
Program Management:	2-21
200 Area Operations:	2-21
300 Area Operations:	2-22
Phase II Stream BAT/AKART (W-252):	2-23
Miscellaneous Streams:	2-23
2.2.3 Planning Assumptions	2-23
Program Management	2-23
200 Area Operations	2-24
300 Area Operations	2-25
Liquid Effluents Engineering	2-25
2.2.4 Program Constraints	2-26
3.0 PROGRAM BASELINES	3-1
3.1 TECHNICAL REQUIREMENTS BASELINE	3-3
3.1.1 Technical Documents Tree & Products Structure	3-3

LIQUID EFFLUENTS

WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

3.1.2	WBS Structure	3-3
3.1.3	WBS Dictionary	3-7
	Program Management	3-7
	Program Fees and Miscellaneous Charges	3-9
	200 Area Treated Effluent Disposal Facility (TEDF)	
	Safe Minimum Environmental Compliant Operations	
	(SMECO)	3-10
	200 Area Effluent Treatment facility (ETF) Safe	
	Minimum Environmental Compliant Operations	
	(SMECO)	3-14
	200 Area Liquid Effluent Retention Facility (LERF)	
	Safe Minimum Environmental Compliant Operations	
	(SMECO)	3-19
	200 Area Effluent Treatment Facility Processing	
	Operation	3-23
	200 Area Enhancements	3-29
	300 Area Treated Effluent Disposal Facility (TEDF)	
	Safe Minimum Safe Environmental Compliant	
	Operations (SMECO)	3-31
	340 Facility Safe Minimum Environmental Compliant	
	Operations (SMECO)	3-34
	300 Area TEDF Enhancements	3-37
	340 Facility Enhancements	3-39
	Miscellaneous Streams	3-41
	Phase II Streams Project W-252	3-43
3.1.4	Responsibility Assignment Matrix	3-45
3.1.5	Technology Requirements	3-46
3.1.6	Waste Type Data	3-47
	DEFINITIONS	3-47
	200 Area Effluent Treatment Facility	3-49
	200 Area Treated Effluent Disposal Facility	3-56
	300 Area Treated Effluent Disposal Facility	3-63
	340 Facility	3-70
3.2	SCHEDULE BASELINE	3-77
3.2.1	Program Master Baseline Schedule	3-77
3.2.2	Milestone List	3-81
3.2.3	Milestone Description Sheets	3-94
3.3	COST BASELINE	3-125
3.3.1	Cost Baseline Summary By Year	3-125
	Cost Baseline Summary - By ADS - By Cost Account - By	
	Year (\$ in 000s) <u>TARGET</u>	3-125
	Cost Baseline Summary - By ADS - By Cost Account - By	
	Year (\$ in 000s) <u>REQUIRED</u>	3-129
3.3.2	Basis of Estimate	3-133
3.3.3	Planned Staffing Profiles	3-135
3.4	PERFORMANCE MEASURES	3-139

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

4.0 EXECUTION YEAR	4-1
4.1 TECHNICAL OBJECTIVES	4-3
PROGRAM MANAGEMENT:	4-3
Program Management/Administration	4-3
Systems Engineering	4-3
Treatability Laboratory	4-3
200 AREA OPERATIONS:	4-3
200 Area Effluent Treatment Facility	4-3
200 Area TEDF	4-4
200 Area ETF Safe Minimum Environmental	
Compliant Operations	4-5
LERF SMECO	4-7
200 Area Process Operations	4-9
200 Area Enhancements	4-11
300 AREA OPERATIONS:	4-11
300 Area TEDF	4-11
340/307 Facilities	4-12
300 Area Process Sewer and Trenches	4-14
Project W-302, 340 Facility Replacement	4-14
LIQUID EFFLUENTS ENGINEERING:	4-14
Phase II Stream BAT/AKART (W-252)	4-14
200 Area Advanced Engineering Support	4-14
300 Area Advanced Engineering Support	4-14
MISCELLANEOUS STREAMS	4-15
4.1.1 Program Building Blocks	4-16
FY 1996	4-16
FY 1997	4-19
4.2 PROGRAM PERFORMANCE BASELINE SCHEDULE	4-23
4.3 COST BASELINE BY MONTH	4-29
OPERATING EXPENSE - By ADS - By Cost Account - By	
Month (\$ in 000s)	4-29
OPERATING EXPENSE - By ADS - By Cost Element - By	
Month (\$ in 000s)	4-31
CAPITAL EQUIPMENT NOT RELATED TO CONSTRUCTION - By ADS	
- By Month (\$ 000s)	4-33
GENERAL PLANT PROJECT - By ADS - By Month (\$ in 000s)	4-34
LINE ITEM - By ADS - By Month (\$ in 000s)	4-35
4.3.1 Fiscal Year 1995 Carryover Funds and Workslope	4-36
4.4 PROGRAM FUNDING REQUIRED	4-37

5.0 PROJECTS & SITE SERVICES DEPARTMENT OVERHEAD

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

ACRONYM LIST

<u>Acronym</u>	<u>Definition</u>
100 AREA KE	100 Area Hanford Site Production reactors: KE
ACES	Access Control and Entry System
ADS	Activity Data Sheet
ADS	Automated Data System
AKART	All Known Available, and Reasonable Treatment
ALARA	as low as reasonably achievable
APC	Accident Prevention Council
ASA	American Standards Association
BAT	best available technology
BAT/AKART	Best Available Technology/All Know, Available, and Reasonable methods of prevention, control and Treatment
BHI	Bectel Hanford Incorporated
BMP	Best Management Practice
CAA	Clean Air Act
CAA	Cost Account Authorization
CDR	Conceptual Design Plan
CFR	Code of Federal Regulations
Consent Order	State of Washington Waste Discharge Permit Programs Consent Order No. DE 91NM-177
CWA	Clean Water Act
DOE	U.S. Department of Energy
ECO	Environmental Compliance Order
ECOLGY	State of Washington Department of Ecology
EP	Emergency Preparedness
EPA	U.S. Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act of 1986

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

<u>Acronym</u>	<u>Definition</u>
EPRI	Electric Power Research Institute
ERDF	Environmental Restoration Disposal Facility
ESQ	Emergency Safety and Quality Service
ETF	Effluent Treatment Facility
FDC	functional design criteria
FY	fiscal year
FYWP	Fiscal Year Work Plan
G&A/CSP	general and administrative/common support pool
GPP	General Plant Projects
HAZ	hazardous (waste)
HEC	Hanford (Site) Environmental Compliance
HLW	High-Level Waste
HQ	Headquarters
HSRCM	Hanford Site Radiological Control Manual
ICF KH	ICF Kaiser Hanford Company
LEF	Liquid Effluent Facilities
LEMIS	Liquid Effluent Monitoring Information System
LERF	Liquid Effluent Retention Facility
LES	Liquid Effluents Services
LLMS	Low-Level Mixed Waste
LLW	Low-Level Waste
MYPP	Multi-Year Program Plan
N-REACTOR	new production reactor
NEPA	National Environmental Policy Act
NESHAPS	National Emission Standards for Hazardous Air Pollutants
NPDES	National Pollutant Discharge Elimination System
OSHA	Occupational Safety and Health Administration

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

<u>Acronym</u>	<u>Definition</u>
PBI	Performance Based Initiative
PEB	Performance Evaluation Board
PFP	Plutonium Finishing Plant
Plan and Schedule	Plan and Schedule to Discontinue Disposal of Contaminated Liquids into the Soil Column at the Hanford Site
PMs	Preventive Maintenance Schedules
PNL	Pacific Northwest Laboratory
POTW	Publicly Owned Treatment Works
PS	Process Sewer
PTS	Progress Tracking System
PUREX	Plutonium Uranium Reduction Extraction (Facility)
RAEP	Radioactive Air Emissions Program
RCRA	Resource Conservation and Recovery Act
RD&D	Research, Development, and Demonstration
RL	U.S. Department of Energy, Richland Operations Office
RLID	RL implementing directive
RO	Reverse Osmosis
RLWS	Radioactive Liquid Waste System
RPS	Retention Process Sewer
SALDS	State-Approved Land Disposal Site
SEMP	systems engineering management plan
SMECO	Safe Minimum Environmental Compliant Operations
SMS	Site Management System
SNM	Special Nuclear Material
SRID	Standard Requirement Identification Document
TAPS	Toxic Air Pollutants (Permit)
TEDF	Treated Effluent Disposal Facility

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

<u>Acronym</u>	<u>Definition</u>
Tri-Party Agreement also TPA	Hanford Federal Facility Agreement and Consent Order
TRU	transuranic (waste)
TWRS	Tank Waste Remediation System
UO3	Uranium Trioxide (Plant)
UV	ultraviolet
UV/OX	ultraviolet/oxidation
WAC	Washington Administrative Code
WBS	Work Breakdown Structure
WDOE	Washington State Department of Ecology also referred to as "Ecology"
WESF	Waste Encapsulation and Storage Facility
WHC	Westinghouse Hanford Company
WRAP	Waste Receiving and Packaging Plant
WSCF	Waste Sampling and Characterization Facility

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

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1.0 HANFORD STRATEGIC PLAN GOALS/MISSION PLAN

HANFORD SITE MISSION COMPONENTS AND OBJECTIVES

The Liquid Effluents Program supports the three Hanford Site mission components: (1) Clean up the site, (2) Provide scientific and technological excellence to meet global needs, and (3) Partner in the economic diversification of the region.

Nine Hanford Site objectives have been established for the Hanford Site programs to accomplish all three components of this mission. The Liquid Effluents Program supports these objectives:

- We will reduce the known hazards in our system while improving the quality of our hazard assessments to guide future decisions on risk mitigation.
- We will enhance the safety and health of Hanford workers.
- We will provide a safe infrastructure (e.g., utilities, transportation, general purpose facilities, or Sitewide services) in a cost effective way that supports accomplishment of the Hanford mission and meets or exceeds appropriate standards.
- We will manage the Hanford cleanup as a project by consistently applying project management principles to reach the desired end-state as quickly and cost effectively as possible while considering risks and benefits to the public, the workers, and the environment.
- We will have the right number of diverse people doing the right jobs in the right way, culminating in the successful execution of the mission.
- We will have effective decision making across the Hanford Site that balances decision quality, acceptance of the decision by the public, and timeliness of the decision.
- We will be leaders in providing science and technology that enhances Hanford's cleanup mission, improves U.S. competitiveness, and supports regional, national, and international need to balance economic growth and environmental responsibility.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

- We will establish positive working relationships that will build confidence and enhance trust in Hanford.
- We will use the cleanup and science and technology mission elements to help the community establish a diversified and stable economic base over the long term. This will be accomplished through private sector participation in cleanup, creation of local technology and service companies, and effective use of assets no longer required by the federal government.

LIQUID EFFLUENTS PROGRAM SUPPORT TO BASIC SITE OBJECTIVES

Mission Statement. The mission of the Liquid Effluents Program is to responsibly manage current and future Site liquid effluent streams. The underlying purpose of the entire program is to achieve the goal of no longer using the soil column to treat contaminated liquid effluent discharges generated at the Hanford Site. This is achieved through planning and integration, public and stakeholder interaction, definition of requirements, for generators, and provision of timely treatment, storage, and disposal capability.

Material Management Responsibilities. The program will be responsible for the management of any accumulations of liquid effluents and receipt and transfer of effluents generated by the other Site programs. The program responsibilities include establishing acceptance criteria for liquid effluents and verifying compliance with criteria for release/disposal.

Material Disposition Responsibilities. The primary liquid waste disposition responsibilities center on disposal of liquid effluents from all Site cleanup activities. The program is responsible for providing liquid discharge disposal systems integrated to support all Site cleanup activities. The program is responsible for developing an integrated liquid effluent treatment system that uses a combination of local and central treatment systems to achieve cost-effective liquid effluent disposal. Implementation responsibility of local treatment systems will remain with the generating programs; central treatment capabilities will be implemented by this program.

The material disposition activities generate additional waste to be transferred to other programs for final disposition. These wastes are currently anticipated to include solid waste from liquid effluent treatment, samples, and deactivated facilities.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

2.0 PROGRAM OVERVIEW

2.0 PROGRAM OVERVIEW	2-1
2.1 PROGRAM MISSION	2-3
Program Management	2-3
Interfaces with other Hanford Programs	2-4
Systems Engineering	2-5
200 Area Liquid Effluents Facilities (LEF) Operations	2-5
200 Area ETF Operations	2-6
200 Area TEDF Operations	2-7
300 Area Liquid Effluents Facilities (LEF) Operations	2-8
300 Area TEDF Operations	2-8
340 Waste Handling Facility/307 Basins Operations	2-10
Project W-302, 340 Facility Replacement	2-12
Project W-353, "300 Area Diverter Stations Upgrade"	2-12
Phase II Streams (W-252)	2-12
Miscellaneous Streams	2-13
2.2 PROGRAM STRATEGY	2-15
2.2.1 Technical Functions/Requirements	2-16
Systems Engineering Implementation	2-16
Comparison to Sitewide Systems Engineering Functions and Requirements	2-17
Technical Requirements	2-18
2.2.2 Program Objectives	2-21
Program Management:	2-21
200 Area Operations:	2-21
300 Area Operations:	2-22
Phase II Stream BAT/AKART (W-252):	2-23
Miscellaneous Streams:	2-23
2.2.3 Planning Assumptions	2-23
Program Management	2-23
200 Area Operations	2-24
300 Area Operations	2-25
Liquid Effluents Engineering	2-25
2.2.4 Program Constraints	2-26

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

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2.1 PROGRAM MISSION

In the mid-1980s, the United States Congress issued a mandate that by June 1995 the use of the Hanford Site soil column would no longer be used as the treatment media for contaminated liquid effluents generated at the Site. This became the official Department of Energy policy with the issuance in April 1987 of the document entitled *Plan and Schedule to Discontinue Disposal of Contaminated Liquids into the Soil Column at the Hanford Site* (Plan and Schedule) (DOE-RL 1987). This document identified the streams and an implementation plan. The Liquid Effluents Program was created to implement this plan. The workscope and schedule for the new program was formalized by the successful negotiation of the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement [TPA]) and in the State Waste Discharge Permit Program Consent Order No. DE 91NM-177 (Consent Order).

Successful implementation of the Hanford Site Mission Components and Objectives, stated in Section 1.0, in the pursuit of the Program's mission to discontinue using the soil column for treatment of contaminated liquids on the Hanford Site will result in:

- manage current and future liquid effluent streams in a safe, responsible, cost effective and legally compliant manner.
- minimizing risk and protecting the worker and public health and environments
- an infrastructure providing for disposal of liquid effluents
- achievement of regulatory (TPA and Consent Order) milestones
- positioning Hanford for future work

To successfully accomplish its mission, the Liquid Effluents Program is organized into the following elements: (1) Program Management, (2) 200 Area Liquid Effluents Facilities (LEF) Operations, (3) 300 Area LEF Operations, and (4) Liquid Effluents Engineering. The individual missions of each of these elements follows:

Program Management

The mission of this activity is to provide overall coordination, direction and customer interface for the activities in the Liquid Effluents Program. Application of a Systems Engineering approach and operation of the Micro-Pilot

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Plant is included in the Program management activity. Administrative support is provided for program documentation, funds management, scheduling, and reporting.

Interfaces with other Hanford Programs

- Tank Waste Remediation System (TWRS) - The Liquid Effluent Retention Facility (LERF) and 200 Area Effluent Treatment Facility (ETF) will provide essential retention and treatment for the 242-A Evaporator process condensate to allow additional reduction of waste tank volumes. The 340 Waste Handling Facility receives Pacific Northwest Laboratory (PNL) laboratory waste which enables them to continue operating and provide TWRS with sample analysis support. Several other tank farm effluent streams also discharge to the 200 Area Treated Effluent Disposal Facility (TEDF).
- 300 Area Facilities - Liquid effluent streams in the 300 Area discharge to the 300 Area TEDF. 300 Area facilities (WHC, PNL, BHI, KEH) are dependent on the 300 Area TEDF and 340 Waste Handling Facility for continued operations.
- Spent Nuclear Fuels Program - Includes N and K Basins, miscellaneous stream interface.
- Transition Projects Program - Includes PFP, B Plant and PUREX effluent streams feed to the 200 Area TEDF.
- Analytical Services Program - Critical dependence for sampling and analysis services.
- Solid Waste Program - 200 Area ETF and 300 Area TEDF will ship waste to this program (see Section 2.J Waste Type Data). T-Plant will discharge waste to the 200 Area TEDF.
- Landlord Program - The 284-E and 284-W Powerhouses discharge waste to the 200 Area TEDF.
- Environmental Restoration Program - Leachate from the Environmental Restoration Disposal Facility (ERDF), miscellaneous wastes to the 300 Area TEDF and groundwater to the 200 Area ETF.
- RCRA Operational Monitoring Program - Purgewater, groundwater monitoring wells used for liquid effluent facility monitoring.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Systems Engineering

- New Feeds for the ETF

Wastes from other programs on the Hanford Site and elsewhere in the DOE complex will be evaluated to identify potential feeds for the ETF. The treatability of these wastes will be assessed and the need for pretreatment will be determined. Technical guidance will be provided to waste generators as needed. Agreements to treat wastes from other programs will be negotiated. Process and facility modifications to accommodate new feeds will be recommended.

- Micro-Pilot Plant

A pilot plant is available for testing various waste streams. The scale is such that testing can be performed under the treatability testing exclusion of WAC 173-303-071. Tests will be conducted on new and existing waste streams to assess their treatability. The available treatment technologies are representative of the full-scale operations in the 200 Area ETF and 300 Area TEDF. Additional treatment technologies can be added to evaluate their effectiveness in treating the diverse wastes available. The pilot plant will also be used for process troubleshooting.

- Sitewide Systems Engineering Integration

Systems engineering is being used to define the cost, schedule, and technical baseline for cleaning up the Hanford Site. Minimum essential criteria and standards for the systems engineering process are being established. Coordination will be provided between the Liquid Effluents Program and sitewide systems engineering activities. Systems engineering activities to be performed include mission analysis and functional analysis. Interfaces will be documented and controlled.

200 Area Liquid Effluents Facilities (LEF) Operations

The mission of the 200 Area LEF Operations is to provide safe, cost effective and environmentally sound operations of all 200 Area effluent treatment facilities. The facilities currently include:

- 200 Area Effluent Treatment Facility (ETF).
- 200 Area Treated Effluent Disposal Facility (TEDF).
- Liquid Effluent Retention Facility (LERF)

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

200 Area ETF Operations

The 200 Area Effluent Treatment Facility was completed in September 1995 to provide treatment and disposal of 242-A Evaporator Process Condensate (PC) effluent, and waste liquid contained in the Liquid Effluent Retention Facility (LERF). The liquid effluent was previously discharged to the soil column east of the 242-A Evaporator Building. The ETF includes an effluent collection system, a continuous treatment system, and a disposal system which complies with applicable environmental and safety criteria. The treatment and disposal systems contained within the scope of the ETF meet all applicable regulations, including requirements of the U.S. Environmental Protection Agency (EPA), the Washington State Department of Ecology (Ecology), and the U.S. Department of Energy (DOE).

The treatment system is capable of meeting release limits negotiated during permit application with the State of Washington under the *Waste Discharge Permit Program* (Ecology 1986). Washington State policy requires the application of all known, available, and reasonable technology (AKART) to prevent and control the discharge of wastes throughout the state. The AKART methodology includes a review of all available treatment system technologies during the permitting process. Releases from the treatment system are consistent with "As Low As Reasonably Achievable" (ALARA) practices; *General Design Criteria*; WHC-CM-4-9, *Radiological Design*; WHC-CM-4-11, *ALARA Program Manual*. ETF system releases are consistent with the best available technology (BAT) requirements of DOE Order 5400.5, *Radiation Protection of the Public and the Environment*.

The facility will provide: (1) collection for the effluent stream; (2) a treatment system to reduce the concentration of radioactive and hazardous waste constituents in the effluent streams to acceptable levels; (3) tanks to allow for verification of treated effluent characteristics prior to discharge; and (4) a state-approved land disposal structure (SALDS) for effluent disposal.

The treatment process for the waste stream consists of seven steps beginning with micro-filtration. This micro-filter will remove particles up to 1 micron in diameter. After filtration, the waste stream is acidified to convert bicarbonate ions to carbon dioxide. The third step in the treatment process is the UV/oxidation. This process will destroy organic compounds which minimizes secondary waste. The fourth step is de-gasification column. The primary purpose of this step is the removal of carbon dioxide from the waste stream by a vacuum applied to the de-gasification column. The gas stream is then treated prior to release to the environment. The fifth step is further filtration to remove suspended solids greater than 0.1 micron and serves to extend the life of the reverse

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

osmosis (RO) membranes. Following the second filter, the waste stream enters the RO unit for further purification. The final step is the ion exchange columns filled with mixed resins to remove cations and, if necessary, anions. The effluent will be discharged to verification tanks. The treated effluent will be sampled in the verification tanks to verify that the concentrations of radioactive and hazardous waste constituents have been reduced to acceptable levels by the treatment system. The effluent will then be discharged via a dedicated pipeline to the SALDS for disposal. In the event that treated effluent does not meet disposal criteria, it will be recycled from the verification tanks to the ETF for additional treatment prior to disposal.

Secondary waste generated by the treatment facility, such as filter backwash, ion exchange regenerate and permeate from the reverse osmosis will be concentrated and will be packaged to meet the requirements imposed by the State for storage and/or disposal of solid waste.

The ETF provides disposal via a State Approved Land Disposal Site (SALDS). The disposal site and structure is approved by the DOE and Ecology and permitted under the *State Waste Discharge Permit Program* (WAC 173-216). The SALDS for the ETF consists of an underground drain field. The design percolation rates for the site have been established by site testing and evaluation of disposal site soil characteristics. A WAC 173-216 discharge permit has been issued by Ecology.

200 Area TEDF Operations

The 200 Area Treated Effluent Disposal Facility became operational in June 1995. The mission of the 200 Area TEDF, is to provide the collection and disposal system necessary to transport non-RCRA permitted waste streams meeting BAT/AKART requirements to a single permitted soil column disposal site. Streams which discharge to the 200 Area TEDF are listed below:

- Plutonium Finishing Plant:
Ventilation heating/cooling, steam condensate, cooling water, compressed air production, process water, rainwater, potable water overflow
- 222-S Laboratory Complex:
Steam condensate, potable water, rainwater
- T Plant and Associated Laboratory:
Steam condensate, cooling water, heating coil water, floor drains

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

- 284-W Power Plant:
Boiler discharge, cooling water
- PUREX Plant:
Steam condensate, boiler discharge, cooling water
- B Plant:
Steam condensate, boiler discharge, cooling water, potable water,
untreated Columbia River water, rainwater
- 242-A-81 Water Services Building:
Untreated Columbia River water, strainer backwash.

Under the concept of the 200 Area TEDF, each facility discharging to the sewer system must comply with soil column discharge limits that are stipulated in the State of Washington WAC 173-216 soil column discharge permit without further treatment. No provisions exist within the 200 Area TEDF to mitigate contamination once it enters the collection system. Compliance with state discharge requirements and the reduction of site liability from the incidental/accidental release of pollutants into the soil column requires the implementation of BAT/AKART at each facility. Implementation of BAT/AKART is the responsibility of the generating facilities. Waste Certification Plans have been developed with each generator to define the criteria each stream must meet prior to discharging to the 200 Area TEDF pipeline.

300 Area Liquid Effluents Facilities (LEF) Operations

The mission of the 300 Area LEF Operations activity is to provide safe, cost effective, and environmentally sound operations of all 300 Area effluent treatment facilities. The 300 Area LEF facilities currently include:

- 300 Area Treated Effluent Disposal Facility (TEDF)
- 340 Waste Handling Facility/307 Basins.

300 Area TEDF Operations

The 300 Area TEDF became operational on December 28, 1994 to provide treatment for industrial wastewaters generated in the 300 Area which were previously discharged to the 300 Area Process Trenches. The 300 Area TEDF treats up to 300 gallons per minute of process sewer wastewaters from site laboratories, along with support and inactive facilities. The laboratory

LIQUID EFFLUENTS

WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

services are particularly critical to Hanford Site clean-up activities, including tank waste remediation efforts.

The 300 Area TEDF receives the combined waste at the waste collection sump north of the 300 Area. The liquids are monitored at the sump to ensure acceptability at the treatment plant. The wastewaters are then pumped approximately nine-tenths of a mile north to the 300 Area TEDF.

The wastewater constituents requiring treatment can be broadly classified into three groups: heavy metals, organics, and cyanide. The specific treatment units identified as "BAT" in the NPDES permit include iron co-precipitation for removal of heavy metals, thiol functional ion exchange as a "polishing column" for maximizing mercury removal, and UV/peroxide oxidation for destruction of organics and cyanide.

After treatment, the effluent is monitored and discharged through an outfall in the Columbia River. Capability exists to divert the flow prior to entering the facility and after leaving the plant for discharge to the river. The flow can be diverted to diversion tanks prior to reaching the equalization tank and immediately after effluent monitoring. These diversion tanks are used to retain diverted flows until a determination can be made for final disposition based on sampling results. The solid waste generated from the process is loaded on a dump truck and disposed of at the Hanford Site Central Waste Complex. Ion exchange waste will be handled as solid low-level waste.

Operations personnel, using a central control system, monitor process equipment and parameters to ensure proper operations. The operational philosophy is predominately automated control with manual back-up. Proper plant operations, in conjunction with on-line monitoring and sampling, ensure that treated wastewaters are acceptable for discharge to the Columbia River.

The TEDF is designed for continuous receipt of wastewaters with a storage capacity of up to 5 days at a design flowrate of 300 gpm. This capacity can be used to allow for shutdown of the facility for maintenance or handling of off-specification wastewaters. The facility's continued operation is essential to the 300 Area activities. A shutdown of generating laboratories would be required if the plant is not operational and storage capacity is full.

The 300 Area process sewer piping system will be relined as part of Landlord Project L-070 which is due for completion in July 1997, with an early expected completion date December 1996.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

340 Waste Handling Facility/307 Basins Operations

340 Waste Handling Facility

The existing 340 Complex serves those 300 Area facilities that generate radioactively contaminated liquid wastes. Some of these wastes are also contaminated with hazardous materials. The wastes transferred to the 340 Facility storage tanks primarily arrive by one of two sewer systems: 1) direct from the radioactive liquid waste system (RLWS); or 2) through diversions from the retention process sewer (RPS). The RPS serves sources that are normally free of radioactive contamination, but the effluent may become contaminated during abnormal or upset conditions. Under normal conditions wastes from the RPS are conveyed by a third sewer system (the process sewer, or PS) to the 300 Area TEF; otherwise it is routed to the RLWS/340 System. (see also 307 Basins below)

The RLWS is used to collect liquid wastes which are known to contain radioactive constituents. The primary facilities which discharge liquid waste to the RLWS system are the 324, 325, 326, 327, and 329 Buildings. Other generator facilities transfer containerized wastes via these connected facilities or directly to the 340 Complex where the wastes are then discharged to the RLWS via a sump.

The RLWS system includes the 340 Complex and an underground double-wall pipe network, which connects with the previously mentioned PNL 300 Area Buildings. (the current [a replacement] pipe system was installed in 1978). The radioactive liquid waste is collected at the 340 Complex and periodically transferred to a rail tank car in the 340-B Load-Out Facility, which then transports the waste to the 200 Area's 204-AR Waste Unloading Facility for eventual storage in double shell tanks. The 340 Complex includes the 340, 340-A, and 340-B Buildings.

The 340 Building was constructed in the early 1950's and houses the sampling hood, decontamination area, equipment room, control room, and an underground concrete vault. The vault in turn houses two 57 kiloliter (15,000 gal.) stainless steel tanks, and is provided with a removable concrete cover. In the early 1960's an addition was added to the 340 Building which included a garage and load-out facility for tanker trucks. The 340-A Building sits partially below grade and contains six 30 kiloliter (8,000 gal.) stainless steel tanks. All six of these tanks are currently deemed available as backup storage for the vault tanks. The 340-B Building is the rail load-out facility. The building was initially constructed to accommodate two 76 kiloliter (20,000 gal.) rail tank cars. Currently, only the east side can receive rail cars. As stated above, the railcars transport waste out to the 204-AR Facility. The railcars are periodically tested at T Plant in the 200 West Area.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Wastes cannot be stored for greater than 90 days at the 340 Complex without a RCRA permit. In order to minimize waste shipments, consideration has been given to seeking a Part-A permit; where the two tanks in the 340 Vault, the six tanks in the 340-A Building, and ancillary equipment (as deemed necessary by WHC, PNL, and DOE), would be permitted for > 90-day storage. In addition, the two tanks in the 340 Vault would be permitted for treatment.

Secondary containment and inspection capability concerns would need resolution before interim status could be granted. Project W-302, intended to provide for a new, RCRA-compliant tank system, has been validated but not funded: A value engineering study was conducted this summer to evaluate various 300 Area options. Several proposals are now being evaluated to provide for a sound decision basis; including some type of reduced scope W-302, to 340 shutdown along with waste storage and load-out infrastructure upgrades at select PNL facilities.

Negotiations have already begun to include the radioactive/mixed liquid waste management of the 340 Complex into the M-32 Tri-Party Agreement Milestone (dealing with dangerous waste tank system interim status). Until an option is selected and pursued, from the 300 Area VE Study, these negotiations are at an impasse. In the meantime, various integrity inspections are underway, and the regulators have indicated a willingness to allow continued operations.

307 Basins

The RPS system, as previously mentioned above, serves as a collection system for non-regulated liquids which have the potential to become radioactively contaminated. The RPS system includes underground piping, the 307 Basins, and several diverter stations. The RPS diverter stations are capable of routing both radioactive and non-radioactive wastes to either the RPS or the RLWS. The diverter stations are being upgraded under Project W-353, "300 Area Diverter Station Upgrades".

The 307 Basins were constructed during the same time frame as the 340 Complex. The 307 Basins consist of four 190 kiloliter (50,000 gal., each) basins with associated valves, pumps, and pump controls. Project W-345 has recently re-lined the basins and provided the system with batch-release capability. Wastewater determined to be outside the waste acceptance criteria for the 300 Area TEF can be transferred to the 340 Facility vault storage tanks.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Project W-302, 340 Facility Replacement

Replace the existing 340 Storage Vault in order to satisfy TPA milestone M-32, "Complete Dangerous Waste Tank Corrective Actions", and allow for RCRA compliance as a treatment and storage facility.

Project W-353, "300 Area Diverter Stations Upgrade"

This project will include upgrades to the 300 Area diverter stations located at PNL Buildings 324, 325, 326/329, and 327. To prevent the introduction of radiological contamination into the process sewer under off-normal or accident conditions, modifications to the existing monitoring/diversion equipment are required. This project will install new, more sensitive radiation monitoring equipment and modify piping to minimize the possibility of radiological contamination.

Phase II Streams (W-252)

This activity supports the October 1997 implementation of Best Available Technology/All Known, Available, and Reasonable methods of prevention, control, and Treatment (BAT/AKART) for the 200 Areas Phase II Streams. This workscope is required by TPA Milestone M-17-00B. A FY 1995 Line Item 95L-31, Project W-252, 'Phase II Effluent Treatment and Disposal', has been identified to provide the necessary construction activity to implement BAT/AKART for the following streams: 242-A Evaporator Cooling Water, the 242-A Evaporator Steam Condensate, the 284-E Powerplant (including 283E and 282E) Wastewater, and the B Plant (Waste Encapsulation and Storage Facility [WESF]) Cooling Water. The 241-A stream is to be connected to the 200 Area Treated Effluent Disposal Facility.

Line item funding for Project W-252 has been eliminated beginning in FY 1996. Potential impacts of this reduction were identified to include continued unpermitted effluent discharge to the B-Pond, missing TPA Milestone M-17-00B, and disruption of the Landlord Project B-604, 'Water System Upgrade - Reservoir' (a 200 Area water system upgrade). Project B-604 was scoped to take into consideration the water use minimization benefits of closed loop cooling provided by Project W-252.

However, the impacts were mitigated by the redirection of FY 1995 W-252 capital funds to accomplish only the WESF cooling water scope and process an engineering change notice to change the WAC 173-240 Engineering Report to reflect a change in BAT/AKART to "current status". Further actions to lessen the impacts include a tie-in from the B-Pond disposal line to the TEDF disposal line. This added scope will preclude the need to permit B-Pond. Design funds for this scope are being provided by the remaining

LIQUID EFFLUENTS

WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

capital funds in Project W-252. If sufficient contingency funds are available after the WESF construction bids, the construction funds will also be provided by Project W-252.

These actions will allow successful completion of the TPA Milestone M-17-00B and minimal impact to Project B-604, while still not requiring a costly permitting action for the B-Pond outfall.

Miscellaneous Streams

The Plan and Schedule for Disposition and Regulatory Compliance for Miscellaneous Streams (DOE/RL-93-94, Rev. 1) was approved by Ecology on February 9, 1995. This document provides a plan and schedule for ensuring that miscellaneous streams will be in compliance with the applicable state regulations (e.g., WAC 173-216 and WAC 173-218). The commitments established in the plan and schedule include registration of injection wells, submitting four WAC-216 categorical permit applications, annual update of the miscellaneous stream inventory, and implementation of Best Management Practices (BMP). Miscellaneous Streams are those streams discharging through an engineered structure to the soil column at the Hanford Site and were not categorized as Phase I or Phase II streams.

The Miscellaneous Streams program mission is to meet the commitments set forth in the plan and schedule and to ensure that all future miscellaneous streams are in compliance with the requirements of the plan and schedule.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

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2.2 PROGRAM STRATEGY

In March 1987, U.S. DOE Richland Operations Office, (RL) issued the document entitled *Plan and Schedule to Discontinue Disposal of Contaminated Liquids into the Soil Column at the Hanford Site* (Plan and Schedule) (RL 1987). This document identified the 33 major liquid effluent streams, and included a plan to replace the practice of using the soil column as treatment at the Hanford Site to dispose of contaminated liquid effluents. To implement this plan, the strategy was developed to:

- characterize the liquid effluent streams,
- develop a prioritization scheme for implementing the plans,
- establish funding mechanisms,
- minimize and eliminate unnecessary liquid discharges;
- identify BAT/AKART for the remaining effluents,
- and construct, permit and operate facilities required to treat and dispose of the remaining effluents.

The management strategies and schedules developed for the treatment and disposal of the liquid effluents at Hanford were agreed to and formalized by the three agencies involved: the U.S. Department of Energy (DOE), the Environmental Protection Agency (EPA), and the Washington State Department of Ecology (Ecology). This joint strategy is reflected as commitment language and milestone dates in both the updated Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement [TPA]) and in the State of Washington Waste Discharge Permit Program Consent Order No. DE 91NM-177 (Consent Order). This joint strategy includes schedules for reducing and eliminating discharges, and schedules for implementing technologies for treatment and disposal of those effluents that remain.

The Plan and Schedule for Disposition and Regulatory Compliance for Miscellaneous Streams (DOE/RL-93-94, Rev. 1) was approved by Ecology on February 9, 1995. This document provides a plan and schedule for ensuring that miscellaneous streams will be in compliance with the applicable state regulations (e.g., WAC 173-216 and WAC 173-218). The commitments established in the plan and schedule include registration of injection wells, submitting four WAC-216 categorical permit applications, annual update of the miscellaneous stream inventory, and implementation of Best Management Practices (BMP). The strategy for the Miscellaneous Streams program is to meet all commitments set forth in the plan and schedule and to implement a

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

program that will ensure all existing and future miscellaneous streams meet the requirements of the plan and schedule. The implementation program will also provide assurance that the Hanford Site is in compliance with the four WAC-216 categorical permit limits.

As part of the Liquid Effluents Engineering efforts to apply a systems engineering approach to the program and as funding is available, a series of evaluations will be taking place to identify potential new feeds for the 200 Area Effluent Treatment Facility. Some of the potential new feeds to the ETF are: B Plant clean-out wastes, PUREX clean-out wastes, leachate from the mixed waste burial grounds, N-Reactor Fuel Basin water, 100 Area K-E Basins, purgewater, and radioactive wastes from the 300 Area.

2.2.1 Technical Functions/Requirements

Systems Engineering Implementation

Systems engineering is being used to identify work to cleanup the Hanford Site, in accordance with the U.S. Department of Energy, Richland Operations Office Implementation Directive (RLID) 4900.1, *Systems Engineering*. Systems engineering is a methodology used to develop technical solutions to large or complex problems. The process transforms an identified mission need into a set of performance parameters and a preferred system configuration. The *Hanford Site Systems Engineering Management Plan* (SEMP) (Jackson 1994a) describes the systems engineering process and its products, and provides policy and guidance for the Hanford Site. The *Hanford Site Systems Engineering Manual* (Jackson 1994b) further directs and guides the uniform application of systems engineering.

The purpose of systems engineering is to define the system to fulfill a prescribed mission. However, the Liquid Effluents "system" already exists. The Liquid Effluents Program has newly-constructed facilities which are permitted under current environmental regulations to store, treat and dispose of dilute aqueous wastes. The objectives of systems engineering for the Program are:

- Identify and control interfaces,
- Integrate the Liquid Effluents Program with the Hanford Site cleanup mission,
- Supplement the current planning process, and
- Augment the technical baseline.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

The need for a graded approach to implement systems engineering was recognized by the Liquid Effluents Program. The approach is described in *Systems Engineering Implementation Plan for the Liquid Effluents Services Program*, WHC-SD-WM-PLN-096 (Lowe 1995). For each step in the systems engineering process (as defined in the SEMP), the work already completed and the work that still needs to be performed is identified. The near-term work that needs to be performed is included in this Program Plan. The Liquid Effluents approach to systems engineering is cost-effective in that it takes credit for previous work and limits future work to that which benefits the Program. Systems engineering will address changes in the Program mission, and upgrades to existing facilities to enhance operation or accommodate new feeds. No attempt will be made to backfit work done previously to the systems engineering methodology.

Comparison to Sitewide Systems Engineering Functions and Requirements

Systems engineering is now being applied across the Hanford Site to define all the work for the cleanup mission. The sitewide effort will establish the integrated technical baseline, which will be placed under configuration control and form the basis for future planning. Draft functions and requirements have been developed which define the technical aspects of the site cleanup work. Other work to manage the cleanup activities and acquire cleanup systems is yet to be addressed. Numerous issues have been identified which need to be resolved in order to complete the planning process (e.g., end state). As the work scope is clarified, the functions and requirements are intended to be revisited.

The approach taken by Liquid Effluents to systems engineering generally supports the sitewide effort. The results are beginning to be used in the planning process. Systems engineering functions for managing aqueous wastes have been identified. The table below shows how these functions relate to work by Liquid Effluents as described in this Program Plan. Material flows between the various sitewide cleanup functions constitute the programmatic interfaces. These interfaces are being defined and documented so as to better coordinate the work between programs.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Function Number	Function Description	WBS Number	WBS Description
4.5.3.2	Transfer Aqueous Waste	1.2.2.1.2	200 Area TEDF SMECO
		1.2.2.1.2	200 Area ETF Process Operations
		1.2.2.1.3	300 Area TEDF SMECO
		1.2.2.1.3	340 Facility SMECO
4.5.3.3	Store Aqueous Waste	1.2.2.1.2	200 Area ETF Process Operations
		1.2.2.1.2	200 Area LERF SMECO
		1.2.2.1.3	300 Area TEDF SMECO
		1.2.2.1.3	340 Facility SMECO
4.5.4.2	Treat Aqueous Waste	1.2.2.1.2	200 Area ETF process Operations
		1.2.2.1.3	300 Area TEDF SMECO
4.5.5.2	Dispose of Treated Aqueous Waste	1.2.2.1.2	200 Area TEDF SMECO
		1.2.2.1.2	200 Area ETF Process Operations
		1.2.2.1.3	340 Facility SMECO

Technical Requirements

The approach to treating and disposing of liquid effluents is based on the following strategy and is reflected in current Program schedules:

- Stream Characterization - Determine the stream constituents to support the permitting efforts, treatment prioritization decisions, and development of treatment options.
- BAT/AKART - Identification of Best Available Technology/All Known and Reasonable Technology (BAT/AKART) for each waste stream.
- Regulator Acceptance of BAT/AKART - Once BAT/AKART has been identified, WAC 173-240 Engineering Reports are required to document BAT/AKART and secure agreement by the regulators.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

- **Permits** - State of Washington and/or federal permits are required to implement the goals and objectives of the Liquid Effluents Program. Permit applications must be prepared for State or Federal approval. This approval is reflected in the issuance of the permit. Some of the permit requirements are "drivers" in that the specific need to meet the requirement has justified and molded the Program activities (for example, a State Waste Discharge Permit will be obtained). Others of these requirements are "hold-points" in that they are requirements which must be satisfied in achieving the Program goals and act as schedule constraints (for example, NEPA documentation). Permitting requirements specific to the Liquid Effluents facilities are summarized in the table below:

Liquid Effluents Facility Permits

Permit R = Required NR = Not Required IP = In Place P = Pending	200 Area Effluent Treatment Facility	200 Area TEDF	300 Area TEDF	340 Facility	Phase II Proj W- 252	Misc. Streams	LERF
NEPA - Environmental Assessment	R, IP	R, IP	R, IP		NR	NR	R, IP
NEPA - Categorical Exclusion	R, P	NR	NR		R, IP	NR	NR
SEPA - CheckLists	R, IP	R, IP	R, IP	R, IP	R, IP	R, P	R, IP
RCRA - Interim Status	R, IP	NR	NR	R, P	NR	NR	R, IP
RCRA - Final Status	R, P	NR	NR	R, P	NR	NR	R, P
Delisting	R, IP	NR	NR	NR	NR	NR	NR
CAA - NESHAPS	R, IP	NR	NR	R, IP	NR	NR	NR
CAA - RAEP	R, IP	R, IP	R, IP	NR	NR	NR	NR
CAA - TAPS	R, IP	NR	NR	NR	NR	NR	NR
CWA - NPDES	NR	NR	R, IP	NR	NR	NR	NR
CWA/State Waste Discharge - 240 Report	R, IP	R, IP	NR	NR	R, IP	NR	NR
WAC - 216 Permit	R, IP	R, IP	NR	NR	R, P	R, P	NR
Wild and Scenic River	NR	NR	R, IP	NR	NR	NR	NR
Hydraulic Permit	NR	NR	R, IP	NR	NR	NR	NR
Corps Permit	NR	NR	R, IP	NR	NR	NR	NR

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Permit R = Required NR = Not Required IP = In Place P = Pending	200 Area Effluent Treatment Facility	200 Area TEDF	300 Area TEDF	340 Facility	Phase II Proj W- 252	Misc. Streams	LERF
Water Quality Mod.	NR	NR	R, IP	NR	NR	NR	NR
Septic Permit	R, IP	NR	NR	NR	NR	NR	NR
RD&D Permit	R, IP (pilot plant)	NR	NR	NR	NR	NR	NR

- Facility Design - The facility design must implement BAT and be approved by the regulators.
- Miscellaneous Streams - Miscellaneous Streams are those streams not categorized as Phase I or Phase II Streams which discharge from a fixed location to an engineered disposal structure at a measurable flow rate. The *Plan and Schedule for Disposition and Regulatory Compliance for Miscellaneous Streams* (RL 1995) requires registration of injection wells, submittal of four categorical permits, annual update of the Miscellaneous Streams inventory, and implementation of Best Management Practices (BMP).
- Interim Compliance - As an interim compliance measure prior to fulfilling milestone M-17 of the Tri-Party Agreement, the Program is required to fulfill the requirements of Consent Order DE-91NM-177 for the interim permitting of liquid effluent discharges under Washington Administrative Code (WAC) 173-216. Milestone M-17 requires DOE and their contractors to cease liquid effluent discharges to the soil column by June of 1995, or October of 1997 for Phase II streams, or to have those discharges appropriately permitted.
- Facility Construction/Start-Up Testing/Approval - To operate, all facilities must be constructed and tested to verify implementation of facility design to support requirements of BAT/AKART.
- Facility Operations - Operation of each treatment facility must meet the requirements for a safe, environmentally compliant facility as defined in operating and disposal permits. This includes secondary waste packaging, storing and disposal.
- Laboratory Sample Analysis - Samples must be taken during operations to verify process treatment trains are appropriately treating each stream to meet operating and discharge permit requirements.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Laboratories are required to analyze samples per regulatory requirements defined in permits.

- Future Feeds - Identify, characterize, and evaluate the treatability of candidate feeds. Modify applicable permits as required to enable treatment and disposal of future feeds to the 200 Area ETF and 200 & 300 Area TEDFs.
- Program Planning and Funding - Program Management will plan funding needs for each of the treatment facilities, in coordination with Liquid Effluents Engineering, 200 Area Operations, and 300 Area Operations organizations, to meet requirements for normal Federal budget cycles.
- Tritium Technology Review - Perform an annual review of available technology and evaluate for BAT/AKART implementation at the 200 Area ETF.

2.2.2 Program Objectives

Program Management:

- Program Management/Administration - Provide overall coordination, direction and customer interface for the activities in the Liquid Effluents Program. Administrative support is provided for program documentation, funds management, scheduling, and reporting.
- Systems Engineering - Use systems engineering to support work planning. Provide coordination between the Liquid Effluents Program and sitewide cleanup effort. Participate in sitewide systems engineering activities.
- Treatability Laboratory - Perform treatability testing using the micro pilot plant to (1) determine the feasibility of treating other waste streams in the 200 Area ETF or 300 Area TEDF, (2) support process trouble-shooting, (3) evaluate process modifications prior to implementation, (4) provide data for permit modifications and waste designation, and (5) support waste generators in planning for waste disposal.

200 Area Operations:

- 200 Area Effluent Treatment Facility - Start and operate the 200 Area ETF to process the liquid inventory stored in LERF, support the

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

continued operation of the 242-A Evaporator, and process future feeds as applicable.

- Liquid Effluent Retention Facility - Operate the LERF to support the operation of the 242-A Evaporator and the requirements identified in the Tri-Party Agreement.
- 200 Area Treated Effluent Disposal Facility - Operate the 200 Area TEDF to collect certain effluent streams from the 200 Areas after the application of BAT/AKART and provide a permitted disposal facility for those effluents.
- 200 Area Liquid Effluents Engineering Support - Define the suitability of the 200 Area ETF to treat future waste streams. Future potential streams include:

K Basins Water, N Reactor Basin Water, Purge Water, Groundwater, leachate from burial trenches, WRAP-2A Wastewater, Soil Washing Water, Wastewater from Low-Level Waste Vittrification Plant, Upset Wastewater from facilities connected to 200 Area TEDF, Double- and Single-Shell Tank Sludge Wash Water.

Define the future uses for LERF to support the operational flexibility of the 200 Area ETF. Perform yearly review of the tritium technology developments for BAT/AKART addition to the 200 Area ETF.

300 Area Operations:

- 300 Area Treated Effluent Disposal Facility - Operate the 300 Area TEDF to process the liquid effluents from the 300 Area which were formerly discharged to the 300 Area Process Trenches. Support Project L-070 which replaces the process sewer piping system with a modern system.
- 340 Waste Handling Facility/307 Basins - Operate and maintain the 307 Basins as the collection and verification facility for the retention process sewer and the 340 Waste Handling Facility as the collection point for the radioactive liquid wastewaters, including wastes regulated under RCRA.
- Project W-302, 340 Facility Replacement - Replace the existing 340 Storage Vault in order to allow for RCRA compliance as a treatment and storage facility.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

- 300 Area Liquid Effluents Engineering Support - Define the suitability of the 300 Area TEF to treat future waste streams.

Phase II Stream BAT/AKART (W-252):

Implement BAT/AKART at Phase II stream facilities to treat effluents prior to introduction to the 200 Area TEF for disposal. Streams include:

242-A Evaporator Cooling Water, 242-A Evaporator Steam Condensate, 241-A Tank Farm Cooling Water, 244-AR Vault Cooling Water, 284-E Powerplant Wastewater, B Plant Cooling Water, 241-AY/AZ Steam Condensate, 183-D Filter Backwash, and 400 Area Secondary Cooling Water (241-AY/AZ Steam Condensate, 183-D Filter Backwash and the 400 Area Secondary Cooling Water will not be discharged to the 200 Area TEF).

Miscellaneous Streams:

The objective of the Miscellaneous Stream program is to ensure that all existing and future miscellaneous streams meet the requirements set forth in the Plan and Schedule.

2.2.3 Planning Assumptions

Program Management

- Funding remains available to meet the needs of all currently scheduled workscope.
- Laboratory capacity and availability will be sufficient to analyze liquid effluent samples in a timely manner. Validation of analytical data will be performed without problems.
- All permits will be successfully maintained to allow ongoing operations.
- Existing permits will not require major modifications/re-writes to accommodate new feeds.
- "Safe Minimum Environmental Compliant Operations (SMECO)" defined as: Minimum operations defined as those surveillance, maintenance, and support costs required to control existing material, waste, and facilities in a safe, static condition. If a facility is operating

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

under compliant conditions, it will continue to operate as such. No cleanup, stabilization, or disposal would occur at the minimum operations (SMECO) level, and new activities required to bring non-compliant facilities into compliance with regulatory agreements would not be completed. However, current routine reporting activities necessary to satisfy regulations for surveillance and maintenance, including OSHA, are embedded in current operations estimates. SMECO will be further defined by each facility.

200 Area Operations

- Assume that the 200 Area ETF is a key element in the Site infrastructure ready to support the cleanup mission as set forth in the Hanford Mission Plan.

- The ETF FY 1996 operating schedule is as follows:

+ Prepare to Operate *	Oct 1 - Nov 3
+ RL Startup Approval	Nov 3
+ Operating Cycle # 1 **	Nov 4 - Apr 12
+ ETF Outage 96-1	Apr 13 - Sep 30

(* when operating, the ETF will operate 24 hours/day)

(** operations cycle duration assumes 11 M gals of feed)

- The basic assumption for the 200 Area TEDF collection system is that the generating facilities will treat their streams and will meet the requirements for discharge to a permitted disposal structure.
- Under RCRA permitting, as defined in the interface control documents with each facility, the Effluent Treatment Facility will operate under interim status expansion.
- It is assumed that there will be no accumulation of solids in the LERF basins requiring special cleanout actions.
- LERF will operate under the LDR Treatment Exemption Rule which allows waste to be stored for up to one year prior to treatment in the ETF. (Assume this will start with process condensate generated in FY 1996).
- Adequate FY 1995 capital (\$6.3M) exists to implement Project W-252 reduced work scope (i.e., WESF cooling loop and tie-in to the 200 Area TEDF pipeline).

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

- It is assumed that the 200 Area ETF can accommodate new feeds without major modifications. If modifications are required, it is assumed that the generating facilities will provide the required funding.

300 Area Operations

- Operations of the 300 Area TEF and 340 Waste Handling Facilities are conducted following the current Conduct of Operations Implementation Applicability Matrix applicable for each facility.
- Assume the NPDES Permit re-opener negotiations are successful and that the 300 Area TEF will remain compliant and continue to operate with the current process train.
- The 340 Facility will transition under RCRA from a less than 90-day storage facility, to an interim status facility (Part A), to a permitted facility (Part B). The Notice of Intent, along with subsequent Part A and Part B Permits will be acceptable for operations and approved by Ecology.
- Interim milestones will be negotiated into the Tri-Party Agreement to allow continued operation of the existing 340 Facility until the physical facility can be made compliant and/or replaced by a new facility as part of Project W-302. Upgrades required include secondary containment, leak detection, and surveillance/inspection instrumentation.
- Results of integrity assessment efforts on the 340 Facility tanks will allow continued use on an interim basis until the facility is replaced under Project W-302. The tanks will not be declared "unfit for use" as a result of the integrity assessment.
- Continue to use the Interim Safety Basis and a DOE 5480.23 compliant safety analysis report for the 340 Facility and assume they will not require significant modifications to operations and/or the physical structure of the facility. Hazard classification of the facility will remain nuclear, low hazard per DOE Standard 1027-92 Guidance.

Liquid Effluents Engineering

- No sampling will be required for preparation of the categorical permit application. Existing sample data and process knowledge will be used as a basis for stream water quality determinations.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

2.2.4 Program Constraints

- Permits - Discharge limits in permits issued are exceeding the capabilities of plant designs and the capabilities of existing analytical methods to detect to the concentrations proposed.
 - + The 300 Area NPDES Permit was issued with the general knowledge that discharge limits may be too restrictive for consistent, compliant operations. Non-compliant operations could result in fines and penalties and possible termination of operations of the 300 Area TEDF. This in turn would result in the closure of PNL Laboratories in the 300 Area which provide sample analysis support to the TWRS operations. A milestone has been established for the submission of proposed permit modifications.
 - + Available methods for sample analysis are not adequate to consistently and accurately detect the constituents at the required levels in the permits thus far received from the regulators. Minimum levels are still below practical quantification for many metals.
- LERF Cleanout - The extent and cost of LERF basin cleanout is not known.
- 200 Area ETF New Feeds - The 200 Area Effluent Treatment Facility as designed has capacity beyond that required to process the 242-A Evaporator condensate. To utilize this extra capacity and to further the Site cleanup activities, new feeds need to be identified for the facility. Reduced funding levels are restricting the Program's ability to perform the studies required to determine the suitability for new feeds to the facility.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

3.0 PROGRAM BASELINES

3.0 PROGRAM BASELINES	3-1
3.1 TECHNICAL REQUIREMENTS BASELINE	3-3
3.1.1 Technical Documents Tree & Products Structure	3-3
3.1.2 WBS Structure	3-3
3.1.3 WBS Dictionary	3-7
Program Management	3-7
Program Fees and Miscellaneous Charges	3-9
200 Area Treated Effluent Disposal Facility (TEDF) Safe Minimum Environmental Compliant Operations (SMECO)	3-10
200 Area Effluent Treatment facility (ETF) Safe Minimum Environmental Compliant Operations (SMECO)	3-14
200 Area Liquid Effluent Retention Facility (LERF) Safe Minimum Environmental Compliant Operations (SMECO)	3-19
200 Area Effluent Treatment Facility Processing Operation	3-23
200 Area Enhancements	3-29
300 Area Treated Effluent Disposal Facility (TEDF) Safe Minimum Safe Environmental Compliant Operations (SMECO)	3-31
340 Facility Safe Minimum Environmental Compliant Operations (SMECO)	3-34
300 Area TEDF Enhancements	3-37
340 Facility Enhancements	3-39
Miscellaneous Streams	3-41
Phase II Streams Project W-252	3-43
3.1.4 Responsibility Assignment Matrix	3-45
3.1.5 Technology Requirements	3-46
3.1.6 Waste Type Data	3-47
DEFINITIONS	3-47
200 Area Effluent Treatment Facility	3-49
200 Area Treated Effluent Disposal Facility	3-56
300 Area Treated Effluent Disposal Facility	3-63
340 Facility	3-70
3.2 SCHEDULE BASELINE	3-77
3.2.1 Program Master Baseline Schedule	3-77
3.2.2 Milestone List	3-81
3.2.3 Milestone Description Sheets	3-94
3.3 COST BASELINE	3-125
3.3.1 Cost Baseline Summary By Year	3-125
Cost Baseline Summary - By ADS - By Cost Account - By Year (\$ in 000s) <u>TARGET</u>	3-125
Cost Baseline Summary - By ADS - By Cost Account - By Year (\$ in 000s) <u>REQUIRED</u>	3-129
3.3.2 Basis of Estimate	3-133
3.3.3 Planned Staffing Profiles	3-135
3.4 PERFORMANCE MEASURES	3-139

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

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LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

3.1 TECHNICAL REQUIREMENTS BASELINE

3.1.1 Technical Documents Tree & Products Structure

Systems specifications will be prepared as part of the sitewide systems engineering process. These specifications will contain the technical basis for the products needed to accomplish the site cleanup mission. The Liquid Effluents Program already has in place systems to treat and dispose of aqueous wastes. Design requirements for the Liquid Effluents facilities were specified in functional design criteria documents. Acceptance criteria have been established for the feeds to these facilities, and discharge limits are specified in operating permits. The sources of these requirements are summarized in *Systems Engineering Implementation Plan for the Liquid Effluents Services Program*, WHC-SD-WM-PLN-096 (Lowe 1995). Together these requirements constitute the system specifications for the Liquid Effluents facilities. Top-level programmatic requirements have been entered in the sitewide systems engineering data base. The Liquid Effluents facilities will also appear in the sitewide Product Structure as the systems engineering effort matures.

3.1.2 WBS Structure

WORK BREAKDOWN STRUCTURE (to work package level)			
ADS No.	RL WBS No./ HQ WBS No.	WHC FDS No.	Description
	1.2	A	Solid and Liquid Waste Programs
	1.2.2 1.3.7.3		Liquid Waste
2300-0	1.2.2.1 1.3.7.3.4	A2	Liquid Effluents
2300-0	1.2.2.1.1 1.3.7.3.4	1A21	<i>Liquid Effluents Program Office</i>
2300-0	1.2.2.1.1.0000	1A2111	Liquid Effluents Program Management
		1A211101	Program Management
		1A211102	Program Development
	1.2.2.1.1.0000	1A2112	Program Fees and Misc Charges
2300-0	1.2.2.1.2 1.3.7.3.4	1A22	<i>200 Area Liquid Effluents Facilities Operations</i>

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

WORK BREAKDOWN STRUCTURE (to work package level)			
ADS No.	RL WBS No./ HQ WBS No.	WHC FDS No.	Description
2300-0	1.2.2.1.2.0000	1A2211	200 Area Treated Effluent Disposal Facility (TEDF) Safe Minimum Environmental Compliant Operations (SMECO)
		1A221101	200 A TEDF SMECO Operations
		1A221102	200 A TEDF SMECO Maintenance
		1A221103	200 A TEDF SMECO Safety & Environmental Compliance
		1A221104	200 A TEDF SMECO Facility Management
2300-0	1.2.2.1.2.0000	1A2212	200 Area Effluent Treatment Facility (ETF) Safe Minimum Environmental Compliant Operations (SMECO)
		1A221201	200 A ETF SMECO Operations
		1A221202	200 A ETF SMECO Maintenance
		1A221203	200 A ETF SMECO Safety & Environmental Compliance
		1A221204	200 A ETF SMECO Facility Management
2300-0	1.2.2.1.2.0000	1A2213	200 Area Liquid Effluent Retention Facility (LERF) Safe Minimum Environmental Compliant Operations (SMECO)
		1A221301	200 A LERF SMECO Operations
		1A221302	200 A LERF SMECO Maintenance
		1A221303	200 A LERF SMECO Safety & Environmental Compliance
		1A221304	200 A LERF SMECO Facility Management
2300-0	1.2.2.1.2.0000	1A2214	200 Area ETF Process Operations
		1A221401	200 A ETF Process Operations
		1A221402	200 A ETF Process Operations Maintenance

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

WORK BREAKDOWN STRUCTURE (to work package level)			
ADS No.	RL WBS No./ HQ WBS No.	WHC FDS No.	Description
		1A221403	200 A ETF Process Operations Safety & Environmental Compliance
		1A221404	200 A ETF Process Operations Facility Management
		1A221405	200 A ETF Prepare for Initial Startup
		1A221406	200 A ETF Outage 96-1
2300-0	1.2.2.1.2.0000	1A2215	200 Area Enhancements
		1A221501	200 A ETF Piping Flexibility Enhancements
		1A221502	200 A ETF Filtration System Upgrades
		1A221503	200 Area Upgrades
2300-0	1.2.2.1.3 1.3.7.3.4	1A23	300 Area Liquid Effluent Facilities Operations
2300-0	1.2.2.1.3.0000	1A2310	300 Area TEDF Safe Minimum Environmental Compliant Operations (SMECO)
		1A231001	300 A TEDF SMECO Operations
		1A231002	300 A TEDF SMECO Maintenance
		1A231003	300 A TEDF SMECO Safety & Environmental Compliance
		1A231004	300 A TEDF SMECO Facility Management
2300-0	1.2.2.1.3.0000	1A2340	340 Facility Safe Minimum Environmental Compliant Operations (SMECO)
		1A234001	340 Facility SMECO Operations
		1A234002	340 Facility SMECO Maintenance
		1A234003	340 Facility SMECO Safety & Environmental Compliance
		1A234004	340 Facility SMECO Facility Management
2300-0	1.2.2.1.3.0000	1A2317	300 Area TEDF Enhancements
		1A231701	300 Area TEDF Enhanced Operations

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

WORK BREAKDOWN STRUCTURE (to work package level)			
ADS No.	RL WBS No./ HQ WBS No.	WHC FDS No.	Description
		1A231702	300 Area TEDF Enhanced Facility Maintenance
		1A231704	300 Area TEDF Enhanced Facility Management
2300-0	1.2.2.1.3.0000	1A2347	340 Facility Enhancements
		1A234701	340 Facility Enhanced Operations
		1A234702	340 Facility Enhanced Maintenance
		1A234703	340 Facility Environmental Compliance Enhancements
		1A234704	340 Facility Enhanced Facility Management
2330-0	1.2.2.1.6 1.3.7.3.12	1A2302	Project W-302 Expense Support
2300-0 2300-1	1.2.2.1.4	1A24	<i>Liquid Effluents Engineering</i>
2300-0	1.2.2.1.4 1.3.7.3.4	1A2413	Miscellaneous Streams
		1A241304	Miscellaneous Stream Permitting
		1A241306	Best management Practices
		1A241307	Miscellaneous Streams Inventories
2300-1	1.2.2.1.5 1.3.7.3.15	1A2502	Phase II Streams Project W-252 (Expense)
		1A250201	Permitting
		1A250203	Design Review
		1A250207	LEAE Support to Construction
		1A250210	Readiness Assessment
2330-0	1.2.2.1.6	1A2611	W-302, 340 Facility Upgrade
		1A261101	340 Facility Secondary Containment

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

3.1.3 WBS Dictionary

WORK BREAKDOWN STRUCTURE DICTIONARY		
1 PROJECT TITLE/PARTICIPANT Liquid Effluents Program	2 DATE 09/22/95	3 DOE HQ WBS CODE 1.3.7.3.4
4 DOE-RL WBS ELEMENT CODE 1.2.2.1.1.0000	5 WBS ELEMENT TITLE Program Management	
6 CONTRACTOR WBS ELEMENT CODE 1A2111	7 REVISION NO. AND AUTHORIZATION Revision 0	8 DATE October 1, 1995
9 APPROVED CHANGES		
10 SYSTEM DESIGN DESCRIPTION None	11 BUDGET AND REPORTING NUMBER EW3130020	

12 ELEMENT TASK DESCRIPTION

A. COST ELEMENT:

Labor costs, materials and equipment, purchased services, services from other Hanford contractors, internal company charges, functional overhead, G&A/CSP.

B. TECHNICAL CONTENT:

The Program Management Activity is broken down into two subactivities. The individual subactivity missions are as follows:

1A211101 - Program Management

The overall objective of the Program Management/Administration activity is to provide direction, coordination, and customer interface to those activities required to meet the major mission to

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

manage current and future liquid effluent streams in a safe, responsible, cost effective, and legally compliant manner. The most immediate objective is to end the practice of using the soil column at the Hanford Site to "treat" contaminated liquid effluents.

- Provide Program manager and activity engineering support to coordinate those activities required to meet the program, Tri-Party Agreement, and Consent Order milestones.
- Provide financial and scheduling support to the program. Prepare annual Activity Data Sheets, MYPP/FYWP planning documents. Prepare and issue program funding documents directing work to cost account managers, monitor monthly performance and report through the SMS/PTS and other statusing reports.

1A211102 Liquid Effluents Services Engineering

- Provide LEF Systems Engineering for defining work to be performed and establishing interfaces with other programs.
- Investigate new feeds and requirements for their acceptance.
- Maintain and operate the Micro Pilot Plant for treatability testing. This consists of testing the LERF content prior to each ETF campaign, testing alternate feeds for treatability in the ETF, generating data needed for permit modifications, and testing organics not in the Waste Acceptance Criteria for the 300 Area TEDF.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

WORK BREAKDOWN STRUCTURE DICTIONARY		
1 PROJECT TITLE/PARTICIPANT Liquid Effluents Program	2 DATE 09/22/95	3 DOE HQ WBS CODE 1.3.7.3.4
4 DOE-RL WBS ELEMENT CODE 1.2.2.1.1.0000	5 WBS ELEMENT TITLE Program Fees and Miscellaneous Charges	
6 CONTRACTOR WBS ELEMENT CODE 1A2212	7 REVISION NO. AND AUTHORIZATION Revision 0	8 DATE October 1, 1995
9 APPROVED CHANGES		
10 SYSTEM DESIGN DESCRIPTION None	11 BUDGET AND REPORTING NUMBER EW3130020	

A. COST ELEMENT:

Program Reserve

B. TECHNICAL CONTENT:

Performance Based Initiatives.

Allowance for termination costs.

**LIQUID EFFLUENTS
WBS 1.2.2.1**

FY 1996 Program Plan

WHC-SP-1097 Rev 1

WORK BREAKDOWN STRUCTURE DICTIONARY		
1 PROJECT TITLE/PARTICIPANT Liquid Effluent Program	2 DATE 09/22/95	3 DOE HQ WBS CODE 1.3.7.3.4
4 DOE-RL WBS ELEMENT CODE 1.2.2.1.2.0000	5 WBS ELEMENT TITLE 200 Area Treated Effluent Disposal Facility (TEDF) Safe Minimum Environmental Compliant Operations (SMECO)	
6 CONTRACTOR WBS ELEMENT CODE 1A2211	7 REVISION NO. AND AUTHORIZATION Revision 0	8 DATE October 1, 1995
9 APPROVED CHANGES		
10 SYSTEM DESIGN DESCRIPTION None	11 BUDGET AND REPORTING NUMBER EW3130020	

A. COST ELEMENT:

Labor costs, materials and equipment, purchased services, services from other Hanford contractors, internal company charges, department overhead, G&A/CSP.

B. TECHNICAL CONTENT:

Mission: Operate and maintain the 200 Area Treated Effluent Disposal Facility (TEDF) in a safe and environmentally compliant condition. Operations and maintenance is defined as those surveillances, operations, maintenance, reporting, and support activities required to maintain and operate the facility in accordance with the Department of Energy Requirements and the Washington State Department of Ecology Waste Discharge Permit. This facility must support the continued round-the-clock operation of the seven facilities which discharge into the TEDF. Facility modifications, upgrades, and testing are not funded in this cost account.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

1A221101 - 200 Area TEDF SMECO Operations

The work scope is divided into three major areas:

OPERATE - Provide routine operator activities to support the 200 Area TEDF. Activities classified as routine include: housekeeping, surveillance, response to alarms and indicators, maintenance of facility logs and associated documentation, and sampling.

ENGINEERING SUPPORT - Provide cognizant/process engineering support (WHC-CM-6-1, EP 5.2) to facilitate reliable operation of the TEDF Facility. Promptly respond to system operating anomalies to prevent any service interruptions to either the TEDF or generator facilities. Provide technical input/evaluations to continually upgrade/maintain the TEDF Operating Procedures, Alarm Response Procedures, and design documentation. This includes generating/approving engineering documentation to alter the facility hardware/software configuration to improve operational performance. Perform actual control system software program modifications. Maintain the Interface Control Document and appropriate verbal communications with the generator facilities to ensure these facilities respond to tasks for which they are accountable.

RADIOLOGICAL CONTROL - Provide radiological control activities in accordance with 10CFR835, and the Hanford Site Radiological Control Manual (HSRCM). Activities include sample release for laboratory analysis, pre and post job maintenance surveys, radiological surveillance activities; including tracking, trending and reporting of results.

1A221102 - 200 Area TEDF SMECO Maintenance

The work scope is divided into three major areas:

PMS/PREDICTIVE MAINTENANCE - Plan/schedule/perform instrument calibrations, equipment PMs, and predictive maintenance tests as scheduled. Provide maintenance and technical support to the facility as necessary. Review the results from these preventive/predictive maintenance activities and implement program improvements necessary to optimize resource usage.

CORRECTIVE MAINTENANCE - Provide maintenance and technical support to the facility as necessary. Perform maintenance, work control and engineering activities that support TEDF. Effectively manage and safely control work activities which include work planning, scheduling, and performing corrective maintenance, configuration control, and related services that impact facility operations.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

MATERIAL CONTROL - Maintain tools, equipment, and material inventories as necessary to support efficient facility maintenance. Identify, order, receive, and maintain a spare parts inventory for essential equipment.

1A221103 - 200 Area TEDF SMECO Safety & Environmental Compliance

The work scope is divided into three major areas:

ENVIRONMENTAL MONITORING & SAMPLING - Coordinate and provide analytical laboratory support for the 200 Area TEDF. This support includes interface with the off site laboratory and the WSCF laboratory, to ensure that sample data supports the requirements of the State Waste Discharge Permit and the Interface Control Document. Included in this workscope is the coordination of sample collection along with the actual analytical laboratory support for the effluent and groundwater samples required by the discharge permit or subsequent submittals. The Liquid Effluent Monitoring Information System (LEMIS) will be utilized for the storage, reporting and archiving of the analytical data.

SAFETY - Provide Safety reviews of TEDF operating documents along with safety oversight of TEDF operations.

PERMITTING - Provide Environmental Engineering and Environmental Compliance Officer support for the 200 Area TEDF. Engineering support will include the preparation of the submittals required by the State Waste Discharge Permit. These submittals include: quarterly discharge monitoring reports, variability study results, groundwater monitoring reports, and updates to the Operations/Maintenance Matrix. Environmental Compliance tasks ensure that the TEDF is operated in an environmentally compliant manner along with the discharge to the TEDF from the generators. The scope of this task also include the revision to the discharge permit to include the discharge from the W-252 project.

1A221104 - 200 Area TEDF SMECO Facility Management

The work scope is divided into seven major areas:

PROJECT MANAGEMENT/ADMINISTRATIVE SUPPORT - Provide management overview and administrative support. Perform budget and scheduling activities, performance appraisals and administration of staff development activities.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

PROCEDURES - Perform technical editing, approval coordination, distribution, and maintenance of the facility's administrative, maintenance and operating procedures. Review and coordinate application of Company procedures within the organization.

ASSESSMENTS - Prepare facility performance measures and track facility performance. Provide semi-annual PEB input and perform the semi-annual self assessment, manage and track the Management Oversight Program, maintain a drill program and administer the resulting lessons learned program.

CONDUCT OF OPERATIONS - Maintain Conduct of Operations, which establishes and implements an overall philosophy for achieving excellence in the operation of the facility. This includes organization and administration, maintenance, environmental science, radiation protection, waste handling, remediation and other activities in order to assure a high level of performance.

SUPPORTING ORGANIZATIONS - Provide miscellaneous support to TEDF such as QA, janitorial services, weed/pest control, and other support to efficiently operate the facility.

TRAINING - Maintain the TEDF training program to meet the facility's staffing requirements. Maintain the training curriculum in support of TEDF. Conduct operational evaluations.

EMERGENCY PREPAREDNESS - Provide event reporting, emergency preparedness, and accident investigations. Conduct EP/APC drills in support of facility operations. Support site-wide Emergency Preparedness drill program.

**LIQUID EFFLUENTS
WBS 1.2.2.1**

FY 1996 Program Plan

WHC-SP-1097 Rev 1

WORK BREAKDOWN STRUCTURE DICTIONARY		
1 PROJECT TITLE/PARTICIPANT Liquid Effluent Program	2 DATE 09/22/95	3 DOE HQ WBS CODE 1.3.7.3.4
4 DOE-RL WBS ELEMENT CODE 1.2.2.1.2.0000	5 WBS ELEMENT TITLE 200 Area Effluent Treatment facility (ETF) Safe Minimum Environmental Compliant Operations (SMECO)	
6 CONTRACTOR WBS ELEMENT CODE 1A2212	7 REVISION NO. AND AUTHORIZATION Revision 0	8 DATE October 1, 1995
9 APPROVED CHANGES		
10 SYSTEM DESIGN DESCRIPTION None	11 BUDGET AND REPORTING NUMBER EW3130020	

A. COST ELEMENT:

Labor costs, materials and equipment, purchased services, services from other Hanford contractors, internal company charges, department overhead, G&A/CSP.

B. TECHNICAL CONTENT:

Mission: Operate and maintain the minimum equipment necessary in a safe and environmentally secure manner to comply with state and federal regulations and permits. Minimum operations and maintenance is defined as those surveillances, operations, maintenance, and support activities required to control the facility in a stand-by mode. The facility support systems will be operated and maintained during this period. Only waste created from housekeeping and maintenance activities will be generated. Only required surveillance, training, and reporting activities necessary to satisfy Washington State, Department of Energy, and other federal requirements will be

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

performed. Facility modifications, upgrades, and testing are not funded in this cost account.

1A221201 - 200 Area ETF SMECO Operations

The work scope is divided into three major areas:

OPERATE - Provide operational support by means of surveillance, sampling, and following of maintenance activities.

ENGINEERING SUPPORT - Provide cognizant/process engineering support (WHC-CM-6-1, EP 5.2) to facilitate the reliability of those systems necessary to support ETF Standby Operation. Promptly respond to system operating anomalies in standby systems (heating, ventilation, and air conditioning) to prevent any service interruptions. Provide technical input/evaluations to continually upgrade/maintain the ETF Operating Procedures, Alarm Response Procedures, and design documentation. This includes generating/approving engineering documentation to alter the facility hardware/software configuration to improve standby operational performance. Perform the actual software program modifications. Coordinate with Liquid Effluents Engineering on potential new feeds to the ETF and revise facility baseline documentation accordingly.

RADIOLOGICAL CONTROL - Provide radiological control support for maintenance activities in accordance with 10CFR835 and the Hanford Site Radiological Control Manual (HSRCM). This includes job coverage for maintenance, routine surveys, radiological surveillance program, documentation, follow-up surveys, tracking and trending for reporting purposes, response to radiological alarms, "off-normal" conditions, and emergency response actions. Provide and operate a system to verify employee's medical and training status prior to entry into any radiological area in compliance with WHC Access Control and Entry System (ACES).

1A221202 - 200 Area ETF SMECO Maintenance

The work scope is divided into three major areas:

PREVENTIVE/PREDICTIVE MAINTENANCE - Plan/schedule/perform instrument calibrations, equipment PMs, predictive maintenance tests, and corrective maintenance as scheduled. Provide maintenance and technical support to the facility as necessary. Review the results

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

from these preventive/predictive maintenance activities and implement program improvements necessary to optimize resource usage.

CORRECTIVE MAINTENANCE - Provide maintenance and technical support to the facility as necessary. Perform maintenance, work control and engineering support activities that will be required to support ETF. Effectively manage and safely control work activities which include work planning, scheduling, and performing corrective maintenance, configuration control, and related services that impact facility operations.

MATERIAL CONTROL - Maintain tools, equipment, and material inventories as necessary to support efficient facility maintenance. Identify, order, receive, and maintain a spare parts inventory for essential equipment.

1A221203 - 200 Area ETF SMECO Safety & Environmental Compliance

The work scope is divided into four major areas:

ENVIRONMENTAL MONITORING & SAMPLING - Coordinate and provide analytical laboratory support for the ETF. This support includes interface with the WSCF and off-site laboratory to ensure that sampling data supports the requirements of the State Waste Discharge Permit and the Delisting Petition and RCRA waste analysis plan. Included in this workscope is the coordination of sample collection along with the actual laboratory support. This data will be collected and reported to the Department of Ecology on a quarterly basis.

SAFETY - Provide safety reviews of the ETF operating documents along with safety oversight of ETF Operations. Provide a basic level of safety overview support to be able to maintain the 200 Area ETF in an safe, minimum, environmentally compliant mode. The support includes, but is not limited to, the areas of Fire Safety, Industrial Hygiene and Industrial Safety.

PERMITTING - Provide Environmental Engineering and Environmental Compliance Officer support for the 200 Area ETF. Engineering support will include the preparation of submittals required by the State Waste Discharge Permit, the Federal Delisting Petition, RCRA interim Status Requirements, the Toxic Air Permit, and the RAEP permit. Environmental Compliance Officer support will ensure that the ETF is maintained in an environmentally compliant manner. Also included in this task is the preparation of the final RCRA Part B

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

permit application for the ETF and participation in Ecology workshops to incorporate the ETF into the Site Wide RCRA permit. Included in the scope of this task is the maintenance of a waste management program for the control and shipment of mixed, low-level, and hazardous waste generated while the ETF is in SMECO. This task will also provide for the required EPCRA reporting for the ETF.

TRITIUM - Provide Environmental Engineering support to comply with the requirements of the State Waste Discharge Permit and the requirements of the Department of Energy. These requirements include the development of a tritium tracking system, confirmation of the time for the tritium to reach the Columbia River, and the evaluation of tritium separation technologies.

1A221204 - 200 Area ETF SMECO Facility Management

The work scope is divided into seven major areas:

PROJECT MANAGEMENT/ADMINISTRATIVE SUPPORT - Provide ETF management overview and administrative support. Perform budget and scheduling activities, performance appraisals and administration of staff development activities.

PROCEDURES - Perform technical editing, approval coordination, distribution, and maintenance of the facility's administrative, maintenance, and operating procedures. Review and coordinate application of Company procedures within the ETF organization.

ASSESSMENTS - Prepare facility performance measures and track facility performance. Provide semi-annual PEB input and perform the semi-annual self assessment, manage and track the Management Oversight Program, maintain a drill program and administer the resulting lessons learned program.

CONDUCT OF OPERATIONS - Maintain Conduct of Operations, which establishes and implements an overall philosophy for achieving excellence in the operation of the facility. This includes organization and administration, maintenance, environmental science, radiation protection, waste handling, remediation and other activities in order to assure a high level of performance.

SUPPORT ORGANIZATIONS - Provide miscellaneous support to ETF such as QA, janitorial services, weed/pest control, and other support to efficiently maintain the facility.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

TRAINING - Maintain the ETF training program to meet the facility's staffing requirements. Maintain the training curriculum in support of the ETF's operation. Conduct follow-up training in support of initial facility startup. Conduct operational evaluations.

EMERGENCY PREPAREDNESS - Provide event reporting, emergency preparedness, and accident investigations. Conduct EP/APC drills in support of facility operations. Support site-wide Emergency Preparedness drill program.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

WORK BREAKDOWN STRUCTURE DICTIONARY		
1 PROJECT TITLE/PARTICIPANT Liquid Effluent Program	2 DATE 09/22/95	3 DOE HQ WBS CODE 1.3.7.3.4
4 DOE-RL WBS ELEMENT CODE 1.2.2.1.2.0000	5 WBS ELEMENT TITLE 200 Area Liquid Effluent Retention Facility (LERF) Safe Minimum Environmental Compliant Operations (SMECO)	
6 CONTRACTOR WBS ELEMENT CODE 1A2213	7 REVISION NO. AND AUTHORIZATION Revision 0	8 DATE October 1, 1995
9 APPROVED CHANGES 		
10 SYSTEM DESIGN DESCRIPTION None	11 BUDGET AND REPORTING NUMBER EW3130020	

A. COST ELEMENT:

Labor costs, materials and equipment, purchased services, services from other Hanford contractors, internal company charges, department overhead, G&A/CSP.

B. TECHNICAL CONTENT:

Mission: To operate and maintain the LERF in a safe and environmentally compliant manner with minimum operations to store the 242-A Evaporator process condensate and other waste feeds until such time that it can be processed by the 200 Area Effluent Treatment Facility. Minimum operations are defined as those surveillances, maintenance, and support activities required to operate the facility in a safe and environmentally compliant condition. Also included in this work scope are the annual clean out requirements required by RCRA. Stabilization, or disposal will occur at the minimum operations funding level, and activities required to comply with regulatory

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

agreements will be completed. Current routine reporting activities necessary to satisfy regulations for surveillance and maintenance, including OSHA, are embedded in current operating estimates.

1A221301 - 200 Area LERF SMECO Operations

The work scope is divided into three major areas:

OPERATE - Provide operational support in the means of surveillance, sampling, and clean-out activities.

ENGINEERING SUPPORT - Provide cognizant/process engineering support (WHC-CM-6-1, EP 5.2) to facilitate reliable operation of the LERF Facility. Promptly respond to operating anomalies to prevent any service interruptions to either the ETF or 242A Evaporator facilities. Provide technical input/evaluations to continually upgrade/maintain the LERF Operating Procedures, Alarm Response Procedures, and design documentation. This includes generating/approving engineering documentation to alter the facility hardware/software configuration to improve operational performance. Perform actual control system software program modifications. Coordinate clean closure activities of the LERF Basins, imposed as a contingency, for the approval, to consider the LERF Basins as a Treatment, Storage and Disposal Facility.

RADIOLOGICAL SUPPORT - Provide radiological control support in accordance with 10CFR835 and the Hanford Site Radiological Control Manual (HSRCM). Activities include maintenance and upgrade activities, surveillance programs, documentation, tracking and trending of data for reporting purposes, follow-up surveys, sample release, response to "off-normal conditions, and emergency response actions. Provide and operate a system to verify employee's medical and training status prior to entry into any radiological area in compliance with WHC Access Control and Entry System (ACES).

1A221302 - 200 Area LERF SMECO Maintenance

The work scope is divided into three major areas:

PREVENTIVE/PREDICTIVE MAINTENANCE - Plan/schedule/perform instrument calibrations, equipment PMs, and predictive maintenance tests, as scheduled. Review the results from these preventive/predictive maintenance activities and implement program improvements necessary to optimize resource usage.

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WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

CORRECTIVE MAINTENANCE - Provide maintenance and technical support to the facility as necessary. Perform maintenance, work control and engineering support activities required to support LERF. Effectively manage and safely control work activities which include work planning, scheduling, and performing corrective maintenance, configuration control, and related services that impact facility operations.

MATERIAL CONTROL - Maintain tools, equipment, and material inventories as necessary to support efficient facility maintenance. Identify, order, receive, and maintain a spare parts inventory for essential equipment.

1A221303 - 200 Area LERF SMECO Safety & Environmental Compliance

The work scope is divided into three major areas:

ENVIRONMENTAL MONITORING & SAMPLING - Coordinate laboratory support for the LERF. This includes laboratory interfacing. This support is needed to ensure compliance with RCRA interim status requirements.

SAFETY - Provide safety reviews of the LERF operating documents along with safety oversight of the TEF operations. Included in this workscope is the evaluation of the potential to reduce the hazard classification of the LERF from a nuclear facility to a radiological facility.

PERMITTING - Provide environmental engineering support to ensure compliance with RCRA interim status requirements. Included in this work scope is the integration of the ETF and LERF Part B permit applications and the participation in regulator workshops for the incorporation into the site-wide RCRA permit. Provide Environmental Compliance Officer to maintain the LERF in an environmentally compliant condition.

1A221304 - 200 Area LERF SMECO Facility Management

The work scope is divided into seven major areas:

PROJECT MANAGEMENT/ADMINISTRATIVE SUPPORT - Provide management overview and administrative support. Perform budget and scheduling activities, performance appraisals and administration of staff development activities.

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FY 1996 Program Plan

WHC-SP-1097 Rev 1

PROCEDURES - Perform technical editing, approval coordination, distribution, and maintenance of the facility's administrative, operating, and maintenance procedures. Review and coordinate application of Company procedures within the ETF organization.

ASSESSMENTS - Prepare facility performance measures and track facility performance. Provide semi-annual PEB input and perform the semi-annual self assessment, manage and track the Management Oversight Program, maintain a drill program and administer the resulting lessons learned program.

CONDUCT OF OPERATIONS - Maintain Conduct of Operations, which establishes and implements an overall philosophy for achieving excellence in the operation of the facility. This includes organization and administration, maintenance, environmental science, radiation protection, waste handling, remediation and other activities in order to assure a high level of performance.

SUPPORT ORGANIZATIONS - Provide miscellaneous support to ETF such as QA, janitorial services, weed/pest control, and other support to efficiently maintain the facility.

TRAINING - Maintain the training program to meet the facility's staffing requirements. Maintain the training curriculum in support of the LERF's operation. Conduct follow-up training in support of initial facility startup. Conduct operational evaluations.

EMERGENCY PREPAREDNESS - Provide event reporting, emergency preparedness, and accident investigations. Conduct EP/APC drills in support of facility operations. Support site-wide Emergency Preparedness drill program.

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FY 1996 Program Plan

WHC-SP-1097 Rev 1

WORK BREAKDOWN STRUCTURE DICTIONARY		
1 PROJECT TITLE/PARTICIPANT Liquid Effluent Program	2 DATE 09/22/95	3 DOE HQ WBS CODE 1.3.7.3.4
4 DOE-RL WBS ELEMENT CODE 1.2.2.1.2.0000	5 WBS ELEMENT TITLE 200 Area Effluent Treatment Facility Processing Operation	
6 CONTRACTOR WBS ELEMENT CODE 1A2214	7 REVISION NO. AND AUTHORIZATION Revision 0	8 DATE October 1, 1995
9 APPROVED CHANGES		
10 SYSTEM DESIGN DESCRIPTION None	11 BUDGET AND REPORTING NUMBER EW3130020	

A. COST ELEMENT:

Labor costs, materials and equipment, purchased services, services from other Hanford contractors, internal company charges, department overhead, G&A/CSP.

B. TECHNICAL CONTENT:

Mission: Operate and maintain the 200 Area Effluent Treatment Facility (ETF) in accordance with the operating schedule in a safe, cost effective, and environmentally compliant manner. This includes operation of the ETF in such a manner as to treat the contents of the LERF between November 1995 and April 1996.

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FY 1996 Program Plan

WHC-SP-1097 Rev 1

1A221401 - 200 Area ETF Processing Operations

The workscope is divided into three major areas:

OPERATIONS - Perform routine operating activities that support the 200 Area Effluent Treatment Facility. These routine activities will consist of control room activities, sampling, surveillances, maintenance tasks, waste handling and shipping.

ENGINEERING SUPPORT - Provide cognizant/process engineering support (WHC-CM-6-1, EP 5.2) to facilitate the reliable operation of the ETF Facility. Promptly respond to system operating anomalies to prevent any service interruptions. Provide technical input/evaluations to continually upgrade/maintain the ETF Operating Procedures, Alarm Response Procedures, and design documentation. This includes generating/approving engineering documentation to alter the facility hardware/software configuration to improve operational performance. Perform the actual software program modifications. Coordinate with LES Engineering on potential new feeds to the ETF and revise facility baseline documentation accordingly.

RADIOLOGICAL CONTROL - Provide radiological control support for operating and maintenance activities in accordance with 10CFR835 and the Hanford Site Radiological Control Manual (HSRCM). This includes job coverage for operations, routine surveys, documentation of results, follow-up surveys, response to radiological alarms, "off-normal" conditions, and emergency response actions. Provide and operate a system to verify employee's medical and training status prior to entry into any radiological area in compliance with WHC Access Control and Entry System (ACES).

1A221402 - 200 Area ETF Processing Operations Maintenance

The workscope is divided into three major areas:

PREVENTIVE/PREDICTIVE MAINTENANCE - Plan/schedule/perform instrument calibrations, equipment PMs, and predictive maintenance tests, as scheduled. Provide maintenance and technical support to the facility as necessary to permit a successful operating campaign. Review the results from these preventive/predictive maintenance activities and implement program improvements necessary to optimize resource usage.

CORRECTIVE MAINTENANCE - Provide maintenance and technical support to the facility as necessary to permit a successful operating campaign. Perform maintenance, work control and engineering support

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WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

activities that will be required to support the startup and operation of ETF. Effectively manage and safely control work activities which include work planning, scheduling, and performing corrective maintenance, modifications, construction, configuration control, and related services that impact facility operations.

MATERIAL CONTROL - Maintain tools, equipment, and material inventories as necessary to support efficient facility maintenance. Identify, order, receive, and maintain a spare parts inventory for essential equipment.

1A221403 - 200 Area ETF Processing Operations Safety & Environmental Compliance

The workscope is divided into four major areas:

SAFETY - Provide safety review of the ETF operating documents along with safety oversight of the ETF operations. Included in this workscope are any revisions to the Auditable Safety Analysis and the radiological control program to support campaign 1.

Environmental Monitoring and Sampling - Coordinate and provide analytical laboratory support for the operation of the ETF. This support includes the interface with the 222-S, WSCF and off-site laboratories, to ensure that sample data supports the requirements of the: State Waste Discharge Permit, the delisting petition and the Toxic Air Permit. Included in this workscope is the coordination of sample collection along with the actual analytical laboratory support for the samples required by the various permitting documents. The Liquid Effluent Monitoring Information System (LEMIS) will be utilized for the storage, reporting and archiving of the data. Also included in this task is the coordination and laboratory support for the process control samples needed for the operation of the ETF and the samples required to evaluate compliance with the Auditable Safety Analysis (ASA) and radiological inventory control limits.

PERMITTING - Support all permitting requirements. Maintain a permit reporting system, and support ECO activities.

Provide Environmental Engineering and Environmental Compliance Officer support for the operation of the ETF. Environmental Compliance tasks will insure compliance with the State Waste discharge permit, the delisting petition, the Toxic Air Permit and the RAEP permit.

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WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

WASTE HANDLING - Support waste shipping activities to include maintaining waste certification plans, a waste minimization plan, waste handling procedures, and Electrical Power Research Institute (EPRI) Report.

Provide hazardous waste, low-level, and mixed waste handling support for the operation of the ETF. This support includes the tasks necessary to characterize the waste and ship the waste from the ETF. Included within the workscope is the maintenance of a waste management program for the ETF including: satellite accumulation areas, waste manifests, inspections, and coordination with the central waste complex.

1A221404 - 200 Area ETF Processing Operations Facility Management

Workscope is divided into seven major areas:

PROJECT MANAGEMENT - Provide ETF management overview and administrative support. Perform budget and scheduling activities, performance appraisals and administration of staff development activities.

PROCEDURES - Perform technical editing, approval coordination, distribution, and maintenance of the facility's administrative and operating procedures. Review and coordinate application of Company procedures within the ETF organization.

ASSESSMENTS - Prepare facility performance measures and track facility performance. Provide semi-annual PEB input and perform the semi-annual self assessment, manage and track the Management Oversight Program, maintain a drill program and administer the resulting lessons learned program.

CONDUCT OF OPERATIONS - Maintain Conduct of Operations, which establishes and implements an overall philosophy for achieving excellence in the operation of the facility. This includes organization and administration, maintenance, environmental science, radiation protection, waste handling, remediation and other activities in order to assure a high level of performance.

SUPPORT ORGANIZATIONS - Provide miscellaneous support to ETF such as quality assurance which contributes to and supports a high level of performance.

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WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

TRAINING - Maintain the ETF training program to meet the facility's staffing requirements. Maintain the training curriculum in support of the ETF's operation. Conduct follow-up training in support of initial facility startup. Conduct operational evaluations.

EMERGENCY PREPAREDNESS - Provide event reporting, emergency preparedness, and accident investigations. Conduct EP/APC drills in support of facility operations. Support site-wide Emergency Preparedness drill program

1A221405 - 200 Area ETF Processing Operations Prepare for Initial Startup

The workscope is divided up into five major areas:

READINESS ASSESSMENT - Prepare documentation to certify organizations, management, personnel and facility are ready for ETF operation.

PERMITTING - Support all permitting requirements. Maintain a permit reporting system, and support ECO activities. Provide Environmental Engineering and Environmental Compliance Officer support for the startup of ETF.

PROCEDURES - Coordinate initial procedure development, perform technical editing, approval coordination, distribution, and maintenance of the facility's administrative and operating procedures. Review and coordinate application of Company procedures within the ETF organization.

TRAINING - Maintain the ETF training program to meet the facility's staffing requirements. Maintain the training curriculum in support of the ETF's operation. Conduct follow-up training in support of initial facility startup. Conduct operational evaluations.

EMERGENCY PREPAREDNESS - Provide event reporting, emergency preparedness, and accident investigations. Conduct EP/APC drills in support of facility operations. Support site-wide Emergency Preparedness drill program.

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FY 1996 Program Plan

WHC-SP-1097 Rev 1

1A221406 - 200 Area ETF Processing Operations Outage 96-1

The workscope is divided into six major areas:

PROJECT MANAGEMENT - Provide ETF management overview and administrative support. Perform budget and scheduling activities, performance appraisals and administration of staff development activities.

PROCEDURES - Coordinate procedure revisions based on initial facility operations, perform technical editing, approval coordination, distribution, and maintenance of the facility's administrative and operating procedures. Review and coordinate application of Company procedures within the ETF organization.

ASSESSMENTS - Prepare facility performance measures and track facility performance. Provide semi-annual PEB input and perform the semi-annual self assessment, manage and track the Management Oversight Program, maintain a drill program and administer the resulting lessons learned program.

CONDUCT OF OPERATIONS - Maintain Conduct of Operations, which establishes and implements an overall philosophy for achieving excellence in the operation of the facility. This includes organization and administration, maintenance, environmental science, radiation protection, waste handling, remediation and other activities in order to assure a high level of performance.

SUPPORT ORGANIZATIONS - Provide miscellaneous support to ETF such as QA, janitorial services, weed/pest control, and other support to efficiently operate the facility.

TRAINING - Maintain the ETF training program to meet the facility's staffing requirements. Maintain the training curriculum in support of the ETF's operation. Conduct follow-up training in support of initial facility startup. Conduct operational evaluations

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FY 1996 Program Plan

WHC-SP-1097 Rev 1

WORK BREAKDOWN STRUCTURE DICTIONARY		
1 PROJECT TITLE/PARTICIPANT Liquid Effluents Program	2 DATE 06/15/95	3 DOE HQ WBS CODE 1.3.7.3.4
4 DOE-RL WBS ELEMENT CODE 1.2.2.1.2	5 WBS ELEMENT TITLE 200 Area Enhancements	
6 CONTRACTOR WBS ELEMENT CODE 1A2215	7 REVISION NO. AND AUTHORIZATION Revision 0	8 DATE October 1, 1995
9 APPROVED CHANGES		
10 SYSTEM DESIGN DESCRIPTION None	11 BUDGET AND REPORTING NUMBER EW3130020	

A. COST ELEMENT:

Labor costs, materials and equipment, purchased services, services from other Hanford contractors, internal company charges, department overhead, G&A/CSP.

B. TECHNICAL CONTENT:

This cost account is responsible for:

- Process and facility upgrades to enhance current operation of the Liquid Effluents facilities in the 200 Areas.
- Modifications to these facilities needed to receive, store, and treat new feeds (other than process condensate from the 242-A Evaporator), and dispose of the treated effluent.

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FY 1996 Program Plan

WHC-SP-1097 Rev 1

1A221501 - 200 Area ETF Pipeline Flexibility Enhancements:

This project will provide piping modifications to (1) allow waste received at the ETF unloading facility to be transferred to the LERF, (2) discharge treated effluents which do not contain tritium to the 200 Area TEDF, and (3) connect the groundwater transfer line (located in the same trench as the 200 Area TEDF) to the LERF.

1A221502 - 200 Area ETF Filtration System Upgrade:

This project will replace or augment the existing filtration system in the ETF as contingency for treating the process condensate from the 242-A Evaporator, and to allow treating new feeds.

1A221503 - 200 Area ETF Upgrades:

This workscope will install outside lighting around the ETF/Building 2025EA in order to provide and enhance exterior safety. Additionally, this will install pavement to ensure safe on and off loading of bulk chemicals. The training program and curriculum will be upgraded as well. Upgrade of the Motor Control System Logic and ETF Electrical/Isometric drawings will also be accomplished under this project.

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WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

WORK BREAKDOWN STRUCTURE DICTIONARY		
1 PROJECT TITLE/PARTICIPANT Liquid Effluents Program	2 DATE 06/15/95	3 DOE HQ WBS CODE 1.3.7.3.4
4 DOE-RL WBS ELEMENT CODE 1.2.2.1.3	5 WBS ELEMENT TITLE 300 Area Treated Effluent Disposal Facility (TEDF) Safe Minimum Safe Environmental Compliant Operations (SMECO)	
6 CONTRACTOR WBS ELEMENT CODE 1A2310	7 REVISION NO. AND AUTHORIZATION Revision 0	8 DATE October 1, 1995
9 APPROVED CHANGES 		
10 SYSTEM DESIGN DESCRIPTION None	11 BUDGET AND REPORTING NUMBER EW3130020	

A. COST ELEMENT:

Labor costs, materials and equipment, purchased services, support from other Hanford contractors, internal company charges, department overhead, and G&A/CSP.

B. TECHNICAL CONTENT:

Mission: To provide safe, cost effective, and environmentally sound operations of 300 Area effluent treatment facilities. The scope of this effort includes:

- operations of 300 Area TEDF
- operations and monitoring of the 300 Area Process Sewer
- technical support to Project L-070, "300 Area Process Sewer Piping System Upgrade"

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FY 1996 Program Plan

WHC-SP-1097 Rev 1

1A231001 - 300 Area TEDF SMECO Operations:

Provides for routine operator activities to support the 300 Area Treated Effluent Disposal Facility (TEDF). Activities classified as routines include: housekeeping of the facilities, response to alarms and indicators, validation of procedures, review of required reading assignments, maintenance of facility logs and associated documentation, manning the 300 Area TEDF Control Room, and other miscellaneous tasks required to support operations.

Operations shall follow Conduct of Operations as outlined in the Conduct of Operations matrix, DOE Order 5480.19. Much of the cost associated with operating the facility is attributed to compliance with Conduct of Operations requirements. Where safety will not be compromised and risk is minimal, a graded approach will be taken when implementing potentially expensive or restrictive upgrades or procedures.

Provide for waste management activities by operations personnel at the 300 Area TEDF, including disposal of hazardous wastes, receipt of chemicals for plant operations, and other miscellaneous tasks which may be required, such as surveillances, housekeeping, etc.

Monitor and operate the 300 Area process sewer which provides the wastewater flow that is treated at the 300 Area TEDF. Provide process engineering services, including cognizant engineering support through configuration control, engineering change notices, direction to operations, and other engineering practices.

Perform 300 Area TEDF process sampling and NPDES permit sampling in adherence to the sampling plan to assure efficient, safe plant operations which result in permit compliant discharges from the facility. Provide for activities from non LES organizations in support of the 300 Area TEDF waste management such as Transportation, WSCF, Utilities, etc.

1A231002 - 300 Area TEDF SMECO Maintenance:

Provide a trained maintenance, planning, maintenance engineering and material control staff to support the 300 Area TEDF operations.

Fully implement the WHC work management system. Prepare and issue maintenance schedules as required by operations.

Issue scheduled reports and performance indicators for JCS.

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FY 1996 Program Plan

WHC-SP-1097 Rev 1

Accomplish required instrument calibrations and corrective maintenance in an efficient manner that supports continuity of plant operations.

Provide a preventive and predictive maintenance program.

Ensure required chemicals, materials and parts are ordered, received and properly controlled.

1A231003 - 300 Area TEDF SMECO Safety & Environmental Compliance:

Environmental Compliance Officer partial support to the 300 Area TEDF to control, coordinate and respond to Regulatory requirements and compliance items for this facility.

Provide for safety and environmental activities from non LES organizations in support of the 300 Area TEDF. Includes ESQ, Permitting, Fire Department, etc.

1A231004 - 300 Area TEDF SMECO Facility Management:

Provide management direction for 300 Area TEDF operations. Includes management control over operations for the 300 Area TEDF and sewer systems, as well as employee development, program oversight and operational reporting. Workslope includes required training attendance by operations and administrative staff, as well as training development costs when needed, and class costs. Required training includes certification training for operators and management, facility drills, emergency preparedness and other mandated training.

Provide for activities from non-LES organizations in support of the 300 Area TEDF Facility Management including laundry and custodial, locksmith, light duty fleet, and non-regulated waste disposal, etc.

Maintain conduct of operations, provide quality assurance, and accident analysis.

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FY 1996 Program Plan

WHC-SP-1097 Rev 1

WORK BREAKDOWN STRUCTURE DICTIONARY		
1 PROJECT TITLE/PARTICIPANT Liquid Effluents Program	2 DATE 09/22/95	3 DOE HQ WBS CODE 1.3.7.3.4
4 DOE-RL WBS ELEMENT CODE 1.2.2.1.3.0000	5 WBS ELEMENT TITLE 340 Facility Safe Minimum Environmental Compliant Operations (SMECO)	
6 CONTRACTOR WBS ELEMENT CODE 1A2340	7 REVISION NO. AND AUTHORIZATION Revision 0	8 DATE October 1, 1995
9 APPROVED CHANGES		
10 SYSTEM DESIGN DESCRIPTION None	11 BUDGET AND REPORTING NUMBER EW3130020	

A. COST ELEMENT:

Labor costs, materials and equipment, purchased services, services from other Hanford contractors, internal company charges, department overhead, and G&A/CSP.

B. TECHNICAL CONTENT:

Mission: To provide safe, cost effective, and environmentally sound operations of the 340 Waste Storage and Handling Facility. The scope of this effort includes:

- operations of 340 Facility
- operations and monitoring of the Radioactive Liquid Waste System, 307 Basins, and the Retention Process Sewer
- compliant railcar waste shipments to 200E Tank Farms

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FY 1996 Program Plan

WHC-SP-1097 Rev 1

1A234001 - 340 Facility SMECO Operations:

Provides for routine operator activities to support the 340 Facility. Activities classified as routines include: housekeeping of the facility, periodic inspection and cleaning of the valve boxes, response to alarms and indicators, validation of procedures, review of required reading assignments, maintenance of facility logs and associated documentation, and other miscellaneous tasks required to support operations.

Provide for waste management activities by the operations personnel at the 340 Facility, including railcar shipments in order to meet the 90 day clock requirements, disposal of radioactive solid waste at the 340-B facility, disposal of hazardous wastes, and other miscellaneous tasks which may be required such as surveillances, housekeeping, etc.

Provide process engineering services, including cognizant engineering support through configuration control, engineering change notices, direction to operations, and other engineering practices.

Provide for activities from non-LES organizations in support of 340 Facility waste management such as Railcar Services, Health Physics, Hanford Patrol, etc.

1A234002 - 340 Facility SMECO Maintenance:

Provide a trained maintenance, planning, maintenance engineering and material control staff to support the 340 Facility operations.

Fully implement the WHC work management system.

Prepare and issue maintenance schedules as required by operations. Issue scheduled reports and performance indicators as required by operations.

Accomplish required instrument calibrations and corrective maintenance in an efficient manner that supports continuity of plant operations.

Provide a preventive and predictive maintenance program.

Ensure required materials and parts are ordered, received and properly controlled.

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WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

1A234003 - 340 Facility SMECO Safety & Environmental Compliance:

Environmental Compliance Officer partial support to the 340 Facility to control, coordinate and respond to Regulatory requirements and compliance items for this facility.

Provide for safety and environmental activities from non-LES organizations in support of the 340 Facility; includes ESQ, Fire Department, etc..

1A234004 - 340 Facility SMECO Facility Management:

Provide management direction for 340 Facility operations, which includes management control over the 340 Facility and the 307 Basins, as well as employee development, program oversight and operational reporting. Workscope includes required training attendance by operations and administrative staff, as well as training development costs when needed, and class costs. Required training includes certification training for operators and management, facility drills, emergency preparedness and other mandated training.

Provide for activities from non-LES organizations in support of 340 Facility Management including laundry and custodial, respirators, locksmith, light duty fleet, non-regulated waste disposal, etc.

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FY 1996 Program Plan

WHC-SP-1097 Rev 1

WORK BREAKDOWN STRUCTURE DICTIONARY		
1 PROJECT TITLE/PARTICIPANT Liquid Effluents Program	2 DATE 09/22/95	3 DOE HQ WBS CODE 1.3.7.3.4
4 DOE-RL WBS ELEMENT CODE 1.2.2.1.3.0000	5 WBS ELEMENT TITLE 300 Area TEDF Enhancements	
6 CONTRACTOR WBS ELEMENT CODE 1A2317	7 REVISION NO. AND AUTHORIZATION Revision 0	8 DATE October 1, 1995
9 APPROVED CHANGES		
10 SYSTEM DESIGN DESCRIPTION None	11 BUDGET AND REPORTING NUMBER EW3130020	

A. COST ELEMENT:

Labor costs, materials and equipment, purchased services, services from other Hanford contractors, internal company charges, department overhead, and G&A/CSP.

B. TECHNICAL CONTENT:

Mission: To provide safe, efficient operation of the 300 Area TEDF, but at a level which includes needed and requested workscope which has been deemed to be of slightly less priority than minimal base operations.

1A231701 - 300 Area TEDF Enhanced Operations:

Provides one Nuclear Process Operator to assure scheduling flexibility to adequately cover training, vacations and the off-shift staffing while limiting overtime requirements.

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FY 1996 Program Plan

WHC-SP-1097 Rev 1

Provide one half FTE for a Rotational Engineer for special assignments at the 300 Area TEDF.

1A231704 - 300 Area TEDF Enhanced Facility Management:

Additional workscope to provide non-required, supplemental training such as employee development and off-site technical training.

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WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

WORK BREAKDOWN STRUCTURE DICTIONARY		
1 PROJECT TITLE/PARTICIPANT Liquid Effluents Program	2 DATE 09/22/95	3 DOE HQ WBS CODE 1.3.7.3.4
4 DOE-RL WBS ELEMENT CODE 1.2.2.1.3.0000	5 WBS ELEMENT TITLE 340 Facility Enhancements	
6 CONTRACTOR WBS ELEMENT CODE 1A2347	7 REVISION NO. AND AUTHORIZATION Revision 0	8 DATE October 1, 1995
9 APPROVED CHANGES		
10 SYSTEM DESIGN DESCRIPTION None	11 BUDGET AND REPORTING NUMBER EW3130020	

A. COST ELEMENT:

Labor costs, materials and equipment, purchased services, services from other Hanford contractors, internal company charges, department overhead, and G&A/CSP.

B. TECHNICAL CONTENT:

Mission: To provide safe, efficient operation of the 340 Facility, but at a level which includes needed and requested workscope which has been deemed to be of slightly less priority than minimal base operations.

1A234701 - 340 Facility Enhanced Operations:

Provides one Nuclear Process Operator to assure scheduling flexibility to adequately cover training, vacations and the off-shift staffing while limiting overtime requirements. Provide one half FTE for a rotational engineer for special assignments at 340 Facility.

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FY 1996 Program Plan

WHC-SP-1097 Rev 1

1A234703 - 340 Facility Environmental Compliance Enhancements:

Additional Environmental Compliance activity beyond SMECO baseline. Includes preparation of a Safety Analysis Report for 340 Facility Operations, if required.

1A234704 - 340 Facility Enhanced Facility Management:

Additional workscope to improve Facility Management, including non-required training and Conduct of Operations improvements. Includes modifications and upgrades to the 340 Process Control System to bring it up to current technology standards and to provide communications with the 300 Area TEDF control room, and replacement of the HEPA ventilation system.

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FY 1996 Program Plan

WHC-SP-1097 Rev 1

WORK BREAKDOWN STRUCTURE DICTIONARY		
1 PROJECT TITLE/PARTICIPANT Liquid Effluents Program	2 DATE 09/22/95	3 DOE HQ WBS CODE 1.3.7.3.4
4 DOE-RL WBS ELEMENT CODE 1.2.2.1.4.0000	5 WBS ELEMENT TITLE Miscellaneous Streams	
6 CONTRACTOR WBS ELEMENT CODE 1A2413	7 REVISION NO. AND AUTHORIZATION Revision 0	8 DATE October 1, 1995
9 APPROVED CHANGES		
10 SYSTEM DESIGN DESCRIPTION None	11 BUDGET AND REPORTING NUMBER EW3130020	

A. COST ELEMENT:

Labor costs, materials and equipment, purchased services, services from other Hanford contractors, internal company charges, department overhead, G&A/CSP.

B. TECHNICAL CONTENT:

Mission: Meet the commitments set forth in the Plan and Schedule and ensure that all future miscellaneous streams are in compliance with the requirements of the Plan and Schedule.

1A241304 - Miscellaneous Stream Permitting:

Develop strategy, gather information, and prepare permit applications. Schedule, attend and document meetings related to permit applications and/or draft permits.

Complete WAC 173-216 Permit Implementation Plan.

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FY 1996 Program Plan

WHC-SP-1097 Rev 1

Provide advice and guidance to facilities on Miscellaneous Stream issues.

Oversee the maintenance of stream permits.

1A241306 - Best Management Practices:

Prepare a Best Management Practices (BMP) Engineering Report. This report will identify options for the selection and implementation of BMP. Selection of the proper BMPs will identify contaminants, flow rates, alternatives, costs and identify practices and procedures that will satisfy the guidelines in the Plan and Schedule and those provided by Ecology. Using the criteria in the Plan and Schedule, there are approximately 100 Miscellaneous Streams that must be addressed in the BMP report. A list of these streams was submitted to Ecology in May 1995. For each stream, a preferred alternative will be selected and justified in the BMP Engineering Study report.

1A241307 - Miscellaneous Streams Inventories:

Prepare and submit a revised inventory of Miscellaneous Streams as directed in the Plan and Schedule.

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WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

WORK BREAKDOWN STRUCTURE DICTIONARY		
1 PROJECT TITLE/PARTICIPANT Liquid Effluents Program	2 DATE 09/22/95	3 DOE HQ WBS CODE 1.3.7.3.15
4 DOE-RL WBS ELEMENT CODE 1.2.2.1.5	5 WBS ELEMENT TITLE Phase II Streams Project W-252	
6 CONTRACTOR WBS ELEMENT CODE 1A2502	7 REVISION NO. AND AUTHORIZATION Revision 0	8 DATE October 1, 1995
9 APPROVED CHANGES		
10 SYSTEM DESIGN DESCRIPTION None	11 BUDGET AND REPORTING NUMBER EW3130020	

A. COST ELEMENT:

Labor costs, materials and equipment, purchased services, services from other Hanford contractors, internal company charges, department overhead, G&A/CSP.

B. TECHNICAL CONTENT:

This activity supports the October 1997 implementation of Best Available Technology/All Known, Available, and Reasonable methods of prevention, control, and Treatment (BAT/AKART) for the 200 Areas Phase II Streams. This workscope is required by TPA Milestone M-17-00B.

1A250201 - Permitting

Implementing BAT/AKART for the phase II streams covered by this project will require modification of existing wastewater permits in the 200 Area. This task provides the funds for the permitting organization to rewrite and obtain the necessary approvals for those modifications.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

1A250203 - Design Review

Project W-252 provides design and construction funds to achieve the necessary facility modifications to implement the BAT/AKART. The capital funds for the project provide most of this work. However, there is some project related work such as design reviews, facility interface, HPT support and other reviews that are expense funded activities. This expense budget provides the funds to perform these activities.

1A250207 - LEAE Support to Construction

Program office oversight, expense fund management, criteria document control, and other program related interface activities to support the BAT/AKART implementation are also expense funded. This budget is for that support.

1A250210 - Readiness Assessment

The plants do their own readiness and provide funds for that work. The TEDF facility however has some minor interfaces, both administrative and physical that will require a small readiness activity. Since TEDF is funded out of the Liquid Effluents program, this readiness activity is funded in this budget.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

3.1.4 Responsibility Assignment Matrix

PROGRAM ELEMENT	ACTIVITY	COST ACCOUNT	TITLE	RESPONSIBLE MANAGER	RESPONSIBLE ORGANIZATION
1A2			Liquid Effluents	A.J. DiLiberto	86000
	1A21		Program Office	A.J. DiLiberto	86000
		1A2111	Program Management	F.T. Green	86500
		1A2112	Program Reserve	F.T. Green	86500
	1A22		200 Area Liquid Effluent Facilities Operations	M. W. Peres	86200
		1A2211	200 Area TEDF SMECO	M. W. Peres	86220
		1A2212	200 Area ETF SMECO	M. W. Peres	86260
		1A2213	200 Area LERF SMECO	M. W. Peres	86240
		1A2214	200 Area ETF Processing Operations	M. W. Peres	86230
		1A2215	200 Area Enhancements	S.S. Lowe	86270
		1A2413	Miscellaneous Streams	K.J. Lueck	86200
	2A22		200 Area ETF Capital Equipment	M.W. Peres	86270
		4A2417	ETF Flexibility Enhancements (FY97 GPP)	M. W. Peres	86200
		4A2418	ETF Instrument Optimization (FY98 GPP)	M. W. Peres	86200
		4A2428	ETF Secondary Organic Removal (FY98 GPP)	M. W. Peres	86300
		4A2419	ETF Recycle Capability (FY99 GPP)	M. W. Peres	86300
		4A2429	ETF Offgas treatment (FY99 GPP)	M. W. Peres	86300
		4A2416	ETF Filtration System Upgrade (FY96 GPP)	M. W. Peres	86300
		4A2426	ETF Piping Upgrades (FY96 GPP)	M. W. Peres	86300
		4A2427	ETF Additional Radionuclide Separation (FY97 GPP)	M. W. Peres	86300
	1A23		300 Area Liquid Effluent Facilities Operations	L.W. Roberts	86700

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

PROGRAM ELEMENT	ACTIVITY	COST ACCOUNT	TITLE	RESPONSIBLE MANAGER	RESPONSIBLE ORGANIZATION
		1A2310	300 Area TEDF SMECO	L.W. Roberts	86710
		1A2340	340 Facility SMECO	L.W. Roberts	86720
		1A2317	300 Area TEDF Enhancements	L.W. Roberts	86730
		1A2347	340 Facility Enhancements	L.W. Roberts	86700
		1A2302	Project W-302 Expense Support	R.T. Stordeur	86300
	2A23		300 Area TEDF Capital Equipment	L.W. Roberts	86700
		4A2317	300 Area TEDF Alternate Feed Upgrade (FY97 GPP)	L. W. Roberts	86300
		1A2502	BAT Implementation Phase II Streams	C.E. Hatch	86300
	3A25		Proj W-252, Phase II BAT Impl	P.K. Sato	7FB80
			Liquid Effluents Future Projects	A.J. DiLiberto	86000
	1A26		340 Facility Secondary Containment	L.W. Roberts	86710
		1A2611	Project W-302, 340 Facility Secondary Containment	L.W. Roberts	86710
		3A2611	Project W-302, 340 Facility Secondary Containment		7FB20

3.1.5 Technology Requirements

To successfully complete the mission and objectives of the Liquid Effluents Program as currently planned, no new technology will be needed. It is assumed that BAT/AKART will be utilized and is acceptable for permit requirements. In the investigation of new feeds for the existing Liquid Effluents treatment facilities, it is assumed that any new technology requirements to support a potential new feed will be funded by the feed generator.

3.1.6 Waste Type Data

DEFINITIONS

(reference WHC-EP-0063-4), Hanford Site Solid Waste Acceptance Criteria, November 1993).

ASBESTOS--Trash and other nonhazardous, nonradioactive waste containing asbestos.

BEGINNING INVENTORY--All waste types requiring transferring or processing and are within the program at the start of a planning period.

HLW--The highly radioactive waste material that results from the reprocessing of spent nuclear fuel, including liquid waste produced directly in reprocessing and any solid waste derived from the liquid, that contains a combination of TRU waste and fission products in concentrations requiring permanent isolation. (Special Note: Currently, all wastes in the single shell and double shell tanks or wastes added to the double shell tanks are classified as HLW, even though the tanks contain various combinations of LLW, LLMW, HLW, TRU, and TRUM waste types.)

LLW--Waste that contains radioactivity and is not classified as HLW, TRU, or spent nuclear fuel or 11E(2) byproduct material as defined by DOE Order 5820.2A. Test specimen of fissionable material irradiated for research and development only, and not for the production of power or plutonium, may be classified as LLW provided the concentration of transuranic is less than 100 nCi/g.

LLMW--Low-Level Waste containing both radioactive and hazardous components as defined by the Atomic Energy Act and the Resource Conservation and Recovery Act.

LLW GTC3--Waste that has radionuclides concentrations > Category 3. It is not generally acceptable for near-surface disposal and is called Greater Than Category 3 to meet the intent of DOE Order 5820.2A.

TRU--Without regard to source or form, waste that is contaminated with alpha-emitting radionuclides having an atomic number greater than 92 and half-lives greater than 20 years and concentrations greater than 100 nCi/g at the time of assay. In addition to TRU radionuclides, radium sources and ²³³U in concentrations greater than 100 nCi/g at the time of assay are considered TRU waste.

TRUM--TRU Waste containing both radioactive and hazardous components as defined by the Atomic Energy Act and the Resource Conservation and Recovery Act.

HAZARDOUS--Those solid wastes designated by 40 CFR 261, and regulated as hazardous waste by the United States Environmental Protection Agency.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

LANDFILL--Trash and other nonhazardous nonradioactive wastes.

INDUSTRIAL LIQUID WASTE--Industrial water that has been treated by wastewater treatment process, meets the discharge permit limits, and is discharged (stored) directly to the environment. Wastewater from traditional sanitary facilities or from human activities are not to be tracked. (Examples: steam line blow down, air conditioning condensate, uncontaminated cooling water and sanitary wastewater.) The intent of adding this category of waste types is to help provide a material balance across all programs. (Examples to be tracked include: 242 A Evaporator process condensate and discharges from the 200 Area/300 Area Treated Effluent Disposal Facilities.)

WASTE GENERATED--Quantity increases to a waste type inventory resulting from activities within a program. (Addition of water to dissolve salt cake, waste products from a radiation zone entry, etc.)

WASTE RECEIVED--Waste quantity to be received and name of Program to be received from (e.g., evaporator process condensate received from TWRS).

WASTE REDUCTION--Amount of material being removed from a waste type by a process step. (Volume lost in a compaction process, water removed by evaporation and transformed into another waste type, etc.)

WASTE TRANSFERRED--Waste quantity to be transferred and name of Program transferred to (i.e., evaporator condensate transferred to Liquid Waste Disposal).

WASTE STORED--All quantities of waste added to a program's safe storage or interim safe storage inventory.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

FY 1996 Waste/SNM Type Volume Projections for WBS: 1.2.2.1						
Program Name: Liquid Effluents Program - 200 Area Effluent Treatment Facility						
Period Start Date: 10/1/95				Period End Date: 9/30/96		
Waste/SNM Type	Beginning Inventory (m ³)	Waste/SNM Generated (m ³)	Waste/SNM Received (m ³)	Waste/SNM Reduction (m ³)	Waste/SNM Transferred (m ³)	Waste/SNM Stored/Disposed (m ³)
HLW						
LLW (s)						
LLW (l)			5,300	5,300		
LLMW (s)		189			189	
LLMW (l)	35,500		20,200	55,700		
LLW (GTC3)						
SNM						
TRU						
TRUM						
HAZ		3.7			3.7	
Landfill						
Asbestos						
Ind. (Liq)	5,640	61,900				67,500

Note: Volumetric units for values entered in the table shall be cubic meters, except for SNM where the value shall be reported in metric tons of heavy metal. If the units are not specified, the units for the value shall be assumed to be cubic meters.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

FY 1997 Waste/SNM Type Volume Projections for WBS: 1.2.2.1						
Program Name: Liquid Effluents Program - 200 Area Effluent Treatment Facility						
Period Start Date: 10/1/96				Period End Date: 9/30/97		
Waste/SNM Type	Beginning Inventory (m ³)	Waste/SNM Generated (m ³)	Waste/SNM Received (m ³)	Waste/SNM Reduction (m ³)	Waste/SNM Transferred (m ³)	Waste/SNM Stored/Disposed (m ³)
HLW						
LLW (s)						
LLW (l)						
LLMW (s)		53.8			53.8	
LLMW (l)			12,600	12,600		
LLW (GTC3)						
SNM						
TRU						
TRUM						
HAZ		5.0			5.0	
Landfill						
Asbestos						
Ind. (Liq)		12,800				12,800

Note: Volumetric units for values entered in the table shall be cubic meters, except for SNM where the value shall be reported in metric tons of heavy metal. If the units are not specified, the units for the value shall be assumed to be cubic meters.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

FY 1998 Waste/SNM Type Volume Projections for WBS: 1.2.2.1						
Program Name: Liquid Effluents Program - 200 Area Effluent Treatment Facility						
Period Start Date: 10/1/97				Period End Date: 9/30/98		
Waste/SNM Type	Beginning Inventory (m ³)	Waste/SNM Generated (m ³)	Waste/SNM Received (m ³)	Waste/SNM Reduction (m ³)	Waste/SNM Transferred (m ³)	Waste/SNM Stored/Disposed (m ³)
HLW						
LLW (s)						
LLW (l)			473	473		
LLMW (s)		54.9			54.9	
LLMW (l)			12,600	12,600		
LLW (GTC3)						
SNM						
TRU						
TRUM						
HAZ		5.0			5.0	
Landfill						
Asbestos						
Ind. (Liq)		13,200				13,200

Note: Volumetric units for values entered in the table shall be cubic meters, except for SNM where the value shall be reported in metric tons of heavy metal. If the units are not specified, the units for the value shall be assumed to be cubic meters.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

FY 1999 Waste/SNM Type Volume Projections for WBS: 1.2.2.1						
Program Name: Liquid Effluents Program - 200 Area Effluent Treatment Facility						
Period Start Date: 10/1/98				Period End Date: 9/30/99		
Waste/SNM Type	Beginning Inventory (m ³)	Waste/SNM Generated (m ³)	Waste/SNM Received (m ³)	Waste/SNM Reduction (m ³)	Waste/SNM Transferred (m ³)	Waste/SNM Stored/Disposed (m ³)
HLW						
LLW (s)						
LLW (l)			473	473		
LLMW (s)		62.8			62.8	
LLMW (l)			15,500	15,500		
LLW (GTC3)						
SNM						
TRU						
TRUM						
HAZ		5.0			5.0	
Landfill						
Asbestos						
Ind. (Liq)		16,200				16,200

Note: Volumetric units for values entered in the table shall be cubic meters, except for SNM where the value shall be reported in metric tons of heavy metal. If the units are not specified, the units for the value shall be assumed to be cubic meters.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

FY 2000 Waste/SNM Type Volume Projections for WBS: 1.2.2.1						
Program Name: Liquid Effluents Program - 200 Area Effluent Treatment Facility						
Period Start Date: 10/1/99				Period End Date: 9/30/2000		
Waste/SNM Type	Beginning Inventory (m ³)	Waste/SNM Generated (m ³)	Waste/SNM Received (m ³)	Waste/SNM Reduction (m ³)	Waste/SNM Transferred (m ³)	Waste/SNM Stored/Disposed (m ³)
HLW						
LLW (s)						
LLW (l)			7,570	7,570		
LLMW (s)		71.4			71.4	
LLMW (l)			11,700	11,700		
LLW (GTC3)						
SNM						
TRU						
TRUM						
HAZ		5.0			5.0	
Landfill						
Asbestos						
Ind. (Liq)		19,500				19,500

Note: Volumetric units for values entered in the table shall be cubic meters, except for SNM where the value shall be reported in metric tons of heavy metal. If the units are not specified, the units for the value shall be assumed to be cubic meters.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

FY 2001 To End of Facility/Activity Life Cycle Waste/SNM Type Volume Projections for WBS: 1.2.2.1						
Program Name: Liquid Effluents Program - 200 Area Effluent Treatment Facility						
Period Start Date: 10/1/2000				Period End Date: End of Facility/Activity Life Cycle Date FY 2033		
Waste/SNM Type	Beginning Inventory (m ³)	Waste/SNM Generated (m ³)	Waste/SNM Received (m ³)	Waste/SNM Reduction (m ³)	Waste/SNM Transferred (m ³)	Waste/SNM Stored/Disposed (m ³)
HLW						
LLW (s)						
LLW (l)			757	757		
LLMW (s)		5,180			5,180	
LLMW (l)			1,810,000	1,810,000		
LLW (GTC3)						
SNM						
TRU						
TRUM						
HAZ		150			150	
Landfill						
Asbestos						
Ind. (Liq)		1,840,000				1,840,000

Note: Volumetric units for values entered in the table shall be cubic meters, except for SNM where the value shall be reported in metric tons of heavy metal. If the units are not specified, the units for the value shall be assumed to be cubic meters.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

SUPPORTING DATA & ASSUMPTIONS
PROGRAM: Liquid Effluents - 200 Area ETF
WBS: 1.2.2.1

Date Prepared: 09-14-95
Preparer: S. Lowe

Assumptions: Waste Type, Quantities and Schedule

1. Volume of process condensate from the 242-A Evaporator in FY 1996-2005 is from the DOE special projection per J. Strode telecon dated 5/30/95.
2. Volume of feed and schedule of new TWRS facilities is from "TWRS Process Flowsheet," WHC-SD-WM-TI-613 (Rev 0).
3. Schedule for deactivating old facilities is PUREX - FY 1997, B Plant - FY 2002, PFP - FY 2007, 242-A Evaporator - 2005.
4. Water from N Basin, K Fuel Stabilization, and K Basin is mixed with other feeds prior to treatment as a method to manage radionuclide inventory.
5. Hazardous waste and LLMW(s) Category 1 waste volumes are from the 30 yr Solid Waste Volume Projection.
6. Secondary waste from treating future feeds is similar to the DB3 waste (ETF design basis) at 1 ft³ solid waste/3550 gal feed.
7. Secondary waste volume is 79.5% of the total LLMW(s) Category 3 solid waste volume per the 30 yr Solid Waste Volume Projection.
8. Volume added in treating future feeds is similar to the DB3 waste at 2.11 gal added/150 gal feed (sum of process flowsheet streams 7, 11, 22, 23, 24, 29).
9. End of Life is based on TPA milestone M-51-00, Complete Vittrification of Hanford High-Level Tank Waste, 12/31/2028, plus 4 years for deactivation of TWRS facilities.
10. Waste volume shown in Waste/SNM Stored/Disposal column is treated effluents discharged to the environment and is not being stored at the facility.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

FY 1996 Waste/SNM Type Volume Projections for WBS: 1.2.2.1						
Program Name: Liquid Effluents Program - 200 Area Treated Effluent Disposal Facility						
Period Start Date: 10/1/95				Period End Date: 9/30/96		
Waste/SNM Type	Beginning Inventory (m ³)	Waste/SNM Generated (m ³)	Waste/SNM Received (m ³)	Waste/SNM Reduction (m ³)	Waste/SNM Transferred (m ³)	Waste/SNM Stored/Disposed (m ³)
HLW						
LLW (s)						
LLW (l)						
LLMW (s)						
LLMW (l)						
LLW (GTC3)						
SNM						
TRU						
TRUM						
HAZ						
Landfill						
Asbestos						
Ind. (Liq)			744,000			744,000

Note: Volumetric units for values entered in the table shall be cubic meters, except for SNM where the value shall be reported in metric tons of heavy metal. If the units are not specified, the units for the value shall be assumed to be cubic meters.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

FY 1997 Waste/SNM Type Volume Projections for WBS: 1.2.2.1						
Program Name: Liquid Effluents Program - 200 Area Treated Effluent Disposal Facility						
Period Start Date: 10/1/96				Period End Date: 9/30/97		
Waste/SNM Type	Beginning Inventory (m ³)	Waste/SNM Generated (m ³)	Waste/SNM Received (m ³)	Waste/SNM Reduction (m ³)	Waste/SNM Transferred (m ³)	Waste/SNM Stored/Disposed (m ³)
HLW						
LLW (s)						
LLW (l)						
LLMW (s)						
LLMW (l)						
LLW (GTC3)						
SNM						
TRU						
TRUM						
HAZ						
Landfill						
Asbestos						
Ind. (Liq)			866,000			866,000

Note: Volumetric units for values entered in the table shall be cubic meters, except for SNM where the value shall be reported in metric tons of heavy metal. If the units are not specified, the units for the value shall be assumed to be cubic meters.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

FY 1998 Waste/SNM Type Volume Projections for WBS: 1.2.2.1						
Program Name: Liquid Effluents Program - 200 Area Treated Effluent Disposal Facility						
Period Start Date: 10/1/97				Period End Date: 9/30/98		
Waste/SNM Type	Beginning Inventory (m ³)	Waste/SNM Generated (m ³)	Waste/SNM Received (m ³)	Waste/SNM Reduction (m ³)	Waste/SNM Transferred (m ³)	Waste/SNM Stored/Disposed (m ³)
HLW						
LLW (s)						
LLW (l)						
LLMW (s)						
LLMW (l)						
LLW (GTC3)						
SNM						
TRU						
TRUM						
HAZ						
Landfill						
Asbestos						
Ind. (Liq)			548,000			548,000

Note: Volumetric units for values entered in the table shall be cubic meters, except for SNM where the value shall be reported in metric tons of heavy metal. If the units are not specified, the units for the value shall be assumed to be cubic meters.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

FY 1999 Waste/SNM Type Volume Projections for WBS: 1.2.2.1						
Program Name: Liquid Effluents Program - 200 Area Treated Effluent Disposal Facility						
Period Start Date: 10/1/98				Period End Date: 9/30/99		
Waste/SNM Type	Beginning Inventory (m ³)	Waste/SNM Generated (m ³)	Waste/SNM Received (m ³)	Waste/SNM Reduction (m ³)	Waste/SNM Transferred (m ³)	Waste/SNM Stored/Disposed (m ³)
HLW						
LLW (s)						
LLW (l)						
LLMW (s)						
LLMW (l)						
LLW (GTC3)						
SNM						
TRU						
TRUM						
HAZ						
Landfill						
Asbestos						
Ind. (Liq)			548,000			548,000

Note: Volumetric units for values entered in the table shall be cubic meters, except for SNM where the value shall be reported in metric tons of heavy metal. If the units are not specified, the units for the value shall be assumed to be cubic meters.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

FY 2000 Waste/SNM Type Volume Projections for WBS: 1.2.2.1						
Program Name: Liquid Effluents Program - 200 Area Treated Effluent Disposal Facility						
Period Start Date: 10/1/99				Period End Date: 9/30/2000		
Waste/SNM Type	Beginning Inventory (m ³)	Waste/SNM Generated (m ³)	Waste/SNM Received (m ³)	Waste/SNM Reduction (m ³)	Waste/SNM Transferred (m ³)	Waste/SNM Stored/Disposed (m ³)
HLW						
LLW (s)						
LLW (l)						
LLMW (s)						
LLMW (l)						
LLW (GTC3)						
SNM						
TRU						
TRUM						
HAZ						
Landfill						
Asbestos						
Ind. (Liq)			548,000			548,000

Note: Volumetric units for values entered in the table shall be cubic meters, except for SNM where the value shall be reported in metric tons of heavy metal. If the units are not specified, the units for the value shall be assumed to be cubic meters.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

FY 2001 To End of Facility/Activity Life Cycle Waste/SNM Type Volume Projections for WBS: 1.2.2.1						
Program Name: Liquid Effluents Program - 200 Area Treated Effluent Disposal Facility						
Period Start Date: 10/1/2000				Period End Date: End of Facility/Activity Life Cycle Date FY 2033		
Waste/SNM Type	Beginning Inventory (m ³)	Waste/SNM Generated (m ³)	Waste/SNM Received (m ³)	Waste/SNM Reduction (m ³)	Waste/SNM Transferred (m ³)	Waste/SNM Stored/Disposed (m ³)
HLW						
LLW (s)						
LLW (l)						
LLMW (s)						
LLMW (l)						
LLW (GTC3)						
SNM						
TRU						
TRUM						
HAZ						
Landfill						
Asbestos						
Ind. (Liq)			16,000,000			16,000,000

Note: Volumetric units for values entered in the table shall be cubic meters, except for SNM where the value shall be reported in metric tons of heavy metal. If the units are not specified, the units for the value shall be assumed to be cubic meters.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

SUPPORTING DATA & ASSUMPTIONS
PROGRAM: Liquid Effluents - 200 Area TEDF
WBS: 1.2.2.1

Date Prepared: 09-14-95
Preparer: S. Lowe

Assumptions: Waste Type, Quantities and Schedule

1. Schedule of new TWRS facilities is from "TWRS Process Flowsheet," WHC-SD-WM-TI-613 (Rev 0).
2. Schedule for deactivating old facilities is PUREX - FY 1997, B Plant - FY 2002, PFP - FY 2007, 242-A Evaporator - 2005.
3. T Plant, 222-S Laboratory, Water Treatment Plant, 284E Power Plant, and 241 Tank Farm cooling continue to operate to end of life.
4. Project W-252 BAT/AKART tie-in to the 200 Area TEDF is implemented in 3Q FY 1997.
5. End of Life is based on TPA milestone M-51-00, Complete Vittrification of Hanford High-Level Tank Waste, 12/31/2028, plus 4 years for deactivation of TWRS facilities.
6. Waste volume shown in Waste/SNM Stored/Disposed column is treated effluents discharged to the environment and is not stored at the facility.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

FY 1996 Waste/SNM Type Volume Projections for WBS: 1.2.2.1						
Program Name: Liquid Effluents Program - 300 Area Treated Effluent Disposal Facility						
Period Start Date: 10/1/95				Period End Date: 9/30/96		
Waste/SNM Type	Beginning Inventory (m ³)	Waste/SNM Generated (m ³)	Waste/SNM Received (m ³)	Waste/SNM Reduction (m ³)	Waste/SNM Transferred (m ³)	Waste/SNM Stored/Disposed (m ³)
HLW						
LLW (s)	9	150			159	
LLW (l)						
LLMW (s)						
LLMW (l)						
LLW (GTC3)						
SNM						
TRU						
TRUM						
HAZ						
Landfill		20			20	
Asbestos						
Ind. (Liq)			398,000			398,000

Note: Volumetric units for values entered in the table shall be cubic meters, except for SNM where the value shall be reported in metric tons of heavy metal. If the units are not specified, the units for the value shall be assumed to be cubic meters.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

FY 1997 Waste/SNM Type Volume Projections for WBS: 1.2.2.1						
Program Name: Liquid Effluents Program - 300 Area Treated Effluent Disposal Facility						
Period Start Date: 10/1/96				Period End Date: 9/30/97		
Waste/SNM Type	Beginning Inventory (m ³)	Waste/SNM Generated (m ³)	Waste/SNM Received (m ³)	Waste/SNM Reduction (m ³)	Waste/SNM Transferred (m ³)	Waste/SNM Stored/Disposed (m ³)
HLW						
LLW (s)		150			150	
LLW (l)						
LLMW (s)						
LLMW (l)						
LLW (GTC3)						
SNM						
TRU						
TRUM						
HAZ						
Landfill		20			20	
Asbestos						
Ind. (Liq)			398,000			398,000

Note: Volumetric units for values entered in the table shall be cubic meters, except for SNM where the value shall be reported in metric tons of heavy metal. If the units are not specified, the units for the value shall be assumed to be cubic meters.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

FY 1998 Waste/SNM Type Volume Projections for WBS: 1.2.2.1						
Program Name: Liquid Effluents Program - 300 Area Treated Effluent Disposal Facility						
Period Start Date: 10/1/97				Period End Date: 9/30/98		
Waste/SNM Type	Beginning Inventory (m ³)	Waste/SNM Generated (m ³)	Waste/SNM Received (m ³)	Waste/SNM Reduction (m ³)	Waste/SNM Transferred (m ³)	Waste/SNM Stored/Disposed (m ³)
HLW						
LLW (s)		150			150	
LLW (l)						
LLMW (s)						
LLMW (l)						
LLW (GTC3)						
SNM						
TRU						
TRUM						
HAZ						
Landfill		20			20	
Asbestos						
Ind. (Liq)			398,000			398,000

Note: Volumetric units for values entered in the table shall be cubic meters, except for SNM where the value shall be reported in metric tons of heavy metal. If the units are not specified, the units for the value shall be assumed to be cubic meters.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

FY 1999 Waste/SNM Type Volume Projections for WBS: 1.2.2.1						
Program Name: Liquid Effluents Program - 300 Area Treated Effluent Disposal Facility						
Period Start Date: 10/1/98				Period End Date: 9/30/99		
Waste/SNM Type	Beginning Inventory (m ³)	Waste/SNM Generated (m ³)	Waste/SNM Received (m ³)	Waste/SNM Reduction (m ³)	Waste/SNM Transferred (m ³)	Waste/SNM Stored/Disposed (m ³)
HLW						
LLW (s)		150			150	
LLW (l)						
LLMW (s)						
LLMW (l)						
LLW (GTC3)						
SNM						
TRU						
TRUM						
HAZ						
Landfill		20			20	
Asbestos						
Ind. (Liq)			398,000			398,000

Note: Volumetric units for values entered in the table shall be cubic meters, except for SNM where the value shall be reported in metric tons of heavy metal. If the units are not specified, the units for the value shall be assumed to be cubic meters.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

FY 2000 Waste/SNM Type Volume Projections for WBS: 1.2.2.1						
Program Name: Liquid Effluents Program - 300 Area Treated Effluent Disposal Facility						
Period Start Date: 10/1/99				Period End Date: 9/30/2000		
Waste/SNM Type	Beginning Inventory (m ³)	Waste/SNM Generated (m ³)	Waste/SNM Received (m ³)	Waste/SNM Reduction (m ³)	Waste/SNM Transferred (m ³)	Waste/SNM Stored/Disposed (m ³)
HLW						
LLW (s)		150			150	
LLW (l)						
LLMW (s)						
LLMW (l)						
LLW (GTC3)						
SNM						
TRU						
TRUM						
HAZ						
Landfill		20			20	
Asbestos						
Ind. (Liq)			398,000			398,000

Note: Volumetric units for values entered in the table shall be cubic meters, except for SNM where the value shall be reported in metric tons of heavy metal. If the units are not specified, the units for the value shall be assumed to be cubic meters.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

FY 2001 To End of Facility/Activity Life Cycle Waste/SNM Type Volume Projections for WBS: 1.2.2.1						
Program Name: Liquid Effluents Program - 300 Area Treated Effluent Disposal Facility						
Period Start Date: 10/1/2000				Period End Date: End of Facility/Activity Life Cycle Date FY 2024		
Waste/SNM Type	Beginning Inventory (m ³)	Waste/SNM Generated (m ³)	Waste/SNM Received (m ³)	Waste/SNM Reduction (m ³)	Waste/SNM Transferred (m ³)	Waste/SNM Stored/Disposed (m ³)
HLW						
LLW (s)		3,600			3,600	
LLW (l)						
LLMW (s)						
LLMW (l)						
LLW (GTC3)						
SNM						
TRU						
TRUM						
HAZ						
Landfill		480			480	
Asbestos						
Ind. (Liq)			9,550,000			9,550,000

Note: Volumetric units for values entered in the table shall be cubic meters, except for SNM where the value shall be reported in metric tons of heavy metal. If the units are not specified, the units for the value shall be assumed to be cubic meters.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

SUPPORTING DATA & ASSUMPTIONS
PROGRAM: Liquid Effluents - 300 Area TEDF
WBS: 1.2.2.1

Date Prepared: 09-14-95
Preparer: S. Lowe

Assumptions: Waste Type, Quantities and Schedule

1. LLW(s) beginning inventory is estimated volume of sludge held on 10/1/95.
 $45 \text{ drums} \times 0.2 \text{ m}^3/\text{drum} = 9\text{m}^3$
2. LLW(s) generated is estimated sludge production rate.
 $750 \text{ drums/yr} \times 0.2 \text{ m}^3/\text{drum} = 150 \text{ m}^3$
3. Landfill waste generated is based on historical data.
 $1-5 \text{ m}^3 \text{ dumpster filled } 4 \text{ times/yr} = 20 \text{ m}^3$
4. Industrial liquid received is based on current average feed rate of 200 gpm.
5. End of Life in FY 2024 is based on 30 yr design life of 300 Area TEDF.
6. Waste volume shown in Waste/SNM Stored/Disposed column is treated effluents discharged to the environment and is not stored at the facility.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

FY 1996 Waste/SNM Type Volume Projections for WBS: 1.2.2.1						
Program Name: Liquid Effluents Program - 340 Facility						
Period Start Date: 10/1/95				Period End Date: 9/30/96		
Waste/SNM Type	Beginning Inventory (m ³)	Waste/SNM Generated (m ³)	Waste/SNM Received (m ³)	Waste/SNM Reduction (m ³)	Waste/SNM Transferred (m ³)	Waste/SNM Stored/Disposed (m ³)
HLW						
LLW (s)	21	20			41	
LLW (l)			70	70		
LLMW (s)	0.2	0.6			0.8	
LLMW (l)		80	20		100	
LLW (GTC3)						
SNM						
TRU						
TRUM						
HAZ						
Landfill						
Asbestos						
Ind. (Liq)						

Note: Volumetric units for values entered in the table shall be cubic meters, except for SNM where the value shall be reported in metric tons of heavy metal. If the units are not specified, the units for the value shall be assumed to be cubic meters.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

FY 1997 Waste/SNM Type Volume Projections for WBS: 1.2.2.1						
Program Name: Liquid Effluents Program - 340 Facility						
Period Start Date: 10/1/96				Period End Date: 9/30/97		
Waste/SNM Type	Beginning Inventory (m ³)	Waste/SNM Generated (m ³)	Waste/SNM Received (m ³)	Waste/SNM Reduction (m ³)	Waste/SNM Transferred (m ³)	Waste/SNM Stored/Disposed (m ³)
HLW						
LLW (s)		20			20	
LLW (l)			70	70		
LLMW (s)		0.6			0.6	
LLMW (l)		80	20		100	
LLW (GTC3)						
SNM						
TRU						
TRUM						
HAZ						
Landfill						
Asbestos						
Ind. (Liq)						

Note: Volumetric units for values entered in the table shall be cubic meters, except for SNM where the value shall be reported in metric tons of heavy metal. If the units are not specified, the units for the value shall be assumed to be cubic meters.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

FY 1998 Waste/SNM Type Volume Projections for WBS: 1.2.2.1						
Program Name: Liquid Effluents Program - 340 Facility						
Period Start Date: 10/1/97				Period End Date: 9/30/98		
Waste/SNM Type	Beginning Inventory (m ³)	Waste/SNM Generated (m ³)	Waste/SNM Received (m ³)	Waste/SNM Reduction (m ³)	Waste/SNM Transferred (m ³)	Waste/SNM Stored/Disposed (m ³)
HLW						
LLW (s)		20			20	
LLW (l)			70	70		
LLMW (s)		0.6			0.6	
LLMW (l)		80	20		100	
LLW (GTC3)						
SNM						
TRU						
TRUM						
HAZ						
Landfill						
Asbestos						
Ind. (Liq)						

Note: Volumetric units for values entered in the table shall be cubic meters, except for SNM where the value shall be reported in metric tons of heavy metal. If the units are not specified, the units for the value shall be assumed to be cubic meters.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

FY 1999 Waste/SNM Type Volume Projections for WBS: 1.2.2.1						
Program Name: Liquid Effluents Program - 340 Facility						
Period Start Date: 10/1/98				Period End Date: 9/30/99		
Waste/SNM Type	Beginning Inventory (m ³)	Waste/SNM Generated (m ³)	Waste/SNM Received (m ³)	Waste/SNM Reduction (m ³)	Waste/SNM Transferred (m ³)	Waste/SNM Stored/Disposed (m ³)
HLW						
LLW (s)		20			20	
LLW (l)			70	70		
LLMW (s)		0.6			0.6	
LLMW (l)		80	20		100	
LLW (GTC3)						
SNM						
TRU						
TRUM						
HAZ						
Landfill						
Asbestos						
Ind. (Liq)						

Note: Volumetric units for values entered in the table shall be cubic meters, except for SNM where the value shall be reported in metric tons of heavy metal. If the units are not specified, the units for the value shall be assumed to be cubic meters.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

FY 2000 Waste/SNM Type Volume Projections for WBS: 1.2.2.1						
Program Name: Liquid Effluents Program - 340 Facility						
Period Start Date: 10/1/99				Period End Date: 9/30/2000		
Waste/SNM Type	Beginning Inventory (m ³)	Waste/SNM Generated (m ³)	Waste/SNM Received (m ³)	Waste/SNM Reduction (m ³)	Waste/SNM Transferred (m ³)	Waste/SNM Stored/Disposed (m ³)
HLW						
LLW (s)		20			20	
LLW (l)			70	70		
LLMW (s)		0.6			0.6	
LLMW (l)		80	20		100	
LLW (GTC3)						
SNM						
TRU						
TRUM						
HAZ						
Landfill						
Asbestos						
Ind. (Liq)						

Note: Volumetric units for values entered in the table shall be cubic meters, except for SNM where the value shall be reported in metric tons of heavy metal. If the units are not specified, the units for the value shall be assumed to be cubic meters.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

FY 2001 To End of Facility/Activity Life Cycle Waste/SNM Type Volume Projections for WBS: 1.2.2.1						
Program Name: Liquid Effluents Program - 340 Facility						
Period Start Date: 10/1/2000				Period End Date: End of Facility/Activity Life Cycle Date FY TBD		
Waste/SNM Type	Beginning Inventory (m ³)	Waste/SNM Generated (m ³)	Waste/SNM Received (m ³)	Waste/SNM Reduction (m ³)	Waste/SNM Transferred (m ³)	Waste/SNM Stored/Disposed (m ³)
HLW						
LLW (s)						
LLW (l)						
LLMW (s)						
LLMW (l)						
LLW (GTC3)						
SNM						
TRU						
TRUM						
HAZ						
Landfill						
Asbestos						
Ind. (Liq)						

Note: Volumetric units for values entered in the table shall be cubic meters, except for SNM where the value shall be reported in metric tons of heavy metal. If the units are not specified, the units for the value shall be assumed to be cubic meters.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

SUPPORTING DATA & ASSUMPTIONS

PROGRAM: Liquid Effluents - 340 Waste Handling Facility
WBS: 1.2.2.1

Date Prepared: 09-14-95
Preparer: S. Lowe

Assumptions: Waste Type, Quantities and Schedule

1. LLW(s) beginning inventory is estimated volume held on 10/1/95.
5 drums x 0.2 m³/drum = 1.0 m³
2-4x4x8 boxes x 3.5 m³/box = 7 m³
2-5x5x9 boxes x 6.5 m³/box = 13 m³
2. LLMW(s) beginning inventory is estimated volume held in satellite accumulation areas on 10/1/95.
3 drums x 0.2 m³/drum x 1/3 full = 0.2 m³
3. LLW(s) generated is based on historical data.
2-4x4x8 boxes x 3.5 m³/box = 7 m³
2-5x5x9 boxes x 6.5 m³/box = 13 m³
4. LLMW(s) generated is based on historical data.
3 drums x 0.2 m³/drum = 0.6 m³
5. LLMW(l) generated includes 10m³ of decontamination waste and line flushes plus 70m³ of LLW(l) that becomes mixed waste when it is combined with LLMW(l) in the storage tanks.
6. LLW(l) received and LLMW(l) received is based on historical data for waste receipts and waste volume projections from generators. Assumes approximately 20% of total 90 m³ is mixed waste.
7. End of life is based on 5 yrs continued operation from FY 1996 to FY 2000.

3.2 SCHEDULE BASELINE

3.2.1 Program Master Baseline Schedule

SEE THE FOLLOWING 3 PAGES

**LIQUID EFFLUENTS SERVICES
PROGRAM MASTER BASELINE SCHEDULE
FISCAL YEAR 1996 - 2001**

Manager: Frank Green
Scheduler: Steve Sanborn, 3-3294

ACTIVITY	DESCRIPTION	MS TYPE	START/ FINISH	1995 1996 1997 1998 1999 2000 2001																							
				OCT JAN APR JUL OCT JAN APR JUL OCT JAN APR JUL OCT JAN APR JUL OCT JAN APR JUL OCT JAN APR JUL																							
				FY 1996				FY 1997				FY 1998				FY 1999				FY 2000				FY 2001			
1A2111	PROGRAM MANAGEMENT		10/02/95 09/28/01
1A2111_OUTYEAR	PROGRAM MANAGEMENT		10/01/01 09/28/33
1A22	200 AREA OPERATIONS		01/03/95 08/04/37
1A2211	200A TREATED EFFLUENT DISPOSAL FACILITY (TEDF)		10/02/95 09/28/33
1A2211_D&D	200A TEDF DECONTAMINATIO N & DECOMMISSIONING		09/29/33 09/14/34
SWD_TEDF_FEED01	T PLANT EFFLUENT		10/02/95 09/28/29
SAS_TEDF_FEED01	222-S LAB EFFLUENT		10/02/95 09/28/29
KEH_TEDF_FEED01	242-A-81 WATER EVAPORATO R SERVICES BLDG EFFLUENT		10/02/95 09/28/29
KEH_TEDF_FEED02	284-E POWER PLANT (INCL. W-252 EFFLUENT)		10/02/95 09/28/29
TWRS_TEDF_FEED01	241 TANK FARM COOLING (INCL. W-252 EFFLUENT		10/02/95 09/28/33
TRAN_TEDF_FEED01	PUREX EFFLUENT		10/02/95 09/26/97
TRAN_TEDF_FEED02	B PLANT EFFLUENT (INCL. W-252 EFFLUENT)		10/02/95 09/27/02
TWRS_TEDF_FEED02	242-A EVAPORATOR EFFLUENT		10/02/95 09/28/11
TRAN_TEDF_FEED03	PPF EFFLUENT		10/02/95 09/28/07
TWRS_TEDF_FEED03	PROJECT W-252 EFFLUENT		04/02/97 05/04/29
TWRS_TEDF_FEED05	LLW VITRIFICATION EFFLUENT		06/01/05 09/28/33
TWRS_TEDF_FEED06	HLW VITRIFICATION EFFLUENT		12/01/09 09/28/33
1A2212	200A EFFLUENT TREATMENT FACILITIES (ETF)		10/02/95 09/28/29
1A2212030D25	COMPLETE ANNUAL TRITIUM EVALUATION TECHNOLOGY	TPA	08/30/96 08/30/96	○ M-26-05C																							
1A2212030D27	COMPLETE ANNUAL TRITIUM EVALUATION TECHNOLOGY	TPA	08/29/97 08/29/97	○ M-26-05D																							
1A2212030D28	COMPLETE ANNUAL TRITIUM EVALUATION TECHNOLOGY	TPA	08/28/98 08/28/98	○ M-26-05E																							
1A2212030D29	COMPLETE ANNUAL TRITIUM EVALUATION TECHNOLOGY	TPA	08/30/99 08/30/99	○ M-26-05F																							
1A2212030D30	COMPLETE ANNUAL TRITIUM EVALUATION TECHNOLOGY	TPA	08/30/00 08/30/00	○ M-26-05F																							

ACTIVITY	DESCRIPTION	MS TYPE	START/ FINISH																													
				1995	1996				1997				1998				1999				2000				2001							
				OCT	JAN	APR	JUL	OCT	JAN	APR	JUL	OCT	JAN	APR	JUL	OCT	JAN	APR	JUL	OCT	JAN	APR	JUL	OCT	JAN	APR	JUL					
FY 1996				FY 1997				FY 1998				FY 1999				FY 2000				FY 2001												
1A2212030D31	COMPLETE ANNUAL TRITIUM EVALUATION TECHNOLOGY	TPA	08/30/01 08/30/01																													O M-26-05G
ER ETF_FEED01	N BASIN WATER		10/01/96 09/29/97																													
TRAN ETF_FEED01	MISC. FACILITY DEACTIVATION WASTE		10/01/96 09/28/07																													
SWD ETF_FEED01	LLMW TRENCH LEACHATE		10/01/96 09/28/29																													
ER ETF_FEED02	ERDF LEACHATE		10/02/97 09/28/29																													
SNF ETF_FEED01	K FUEL WASTE CLEANUP		10/01/98 09/29/00																													
TWRS ETF_FEED02	LLW VITRIFICATION WASTE		06/01/05 09/28/29																													
TWRS ETF_FEED03	HLW VITRIFICATION WASTE		12/01/09 09/28/29																													
1A2213	200A LIQUID EFFLUENT RET ENTION FACILITY (LERF)		10/02/95 09/28/01																													
1A2213_OUTYEAR	200A LERF OUTYEAR OPERATIONS		10/01/01 09/28/33																													
1A2213_D&D	200A LERF DECONTAMINATIO N & DECOMMISSIONING		09/29/33 08/04/37																													
242-A_EVAP ETF	RECEIVE PROCESS CONCENTR ATE FROM 242-A EVAPORATR		10/02/95 09/30/98																													
1A2214	200A ETF PROCESS OPERATIONS		10/02/95 09/28/01																													
1A2214_OUTYEAR	200A ETF PROCESS OUTYEAR OPERATIONS		10/01/01 09/28/33																													
1A2214_D&D	ETF PROCESS OPS DECONTAM INATION&DECOMMISSIONING		09/29/33 08/04/37																													
1A2214010A	OPERATE 200A ETF		10/02/95 03/09/01																													
1A2214010A02	OPERATE 200A ETF (FY 96)		11/06/95 04/12/96																													
1A2214010A12	OPERATE 200A ETF (OUT YEARS)		01/02/97 12/28/01																													
1A2214050A	READINESS ASSESSMENT		10/02/95 11/03/00																													
1A2214050A02	READINESS ASSESSMENT (FY 96)		10/02/95 11/03/95																													
OUTAGE	READINESS ASSESSMENT (OUT YEARS)		10/02/96 12/31/96																													
1A2215	200 AREA ENHANCEMENTS		10/02/95 09/28/01																													
ETF_PIPING_UGRAD	ETF PIPING UPGRADES		01/03/95 03/29/96																													
1A23	300 AREA OPERATIONS		10/02/95 09/30/25																													
1A231	300A 310 FACILITY OPERATIONS		10/02/95 09/28/01																													
1A231_OUTYEAR	300A 310 FACILITY OPERATIONS		10/01/01 09/30/25																													
1A234	300A 340 FACILITY OPERATIONS		10/02/95 09/28/01																													

STRIP 2

OM-26-05G

ACTIVITY	DESCRIPTION	MS TYPE	START/ FINISH																												
				1995	1996				1997				1998				1999				2000				2001						
				OCT	JAN	APR	JUL	OCT	JAN	APR	JUL	OCT	JAN	APR	JUL	OCT	JAN	APR	JUL	OCT	JAN	APR	JUL	OCT	JAN	APR	JUL	OCT	JAN	APR	JUL
				FY 1996				FY 1997				FY 1998				FY 1999				FY 2000				FY 2001							
1A234_D&D	300A 340 FACILITY OPERATIONS		10/01/01 10/01/04																												
1A2413	MISCELLANEOUS STREAMS		10/02/95 09/30/98																												
1A2413040A10	SUBMIT FIRST 216 PERMIT APP TO ECOLOGY	RL	11/30/95 11/30/95																												
1A2413040A20	SUBMIT SECOND 216 PERMIT APP TO ECOLOGY	RL	09/30/96 09/30/96																												
1A2413040A55	SUBMIT FY97 216 PERMIT APP TO ECOLOGY	RL	09/30/97 09/30/97																												
1A2413040A65	SUBMIT FY98 216 PERMIT APP TO ECOLOGY	RL	09/30/98 09/30/98																												
1A2502	BAT IMPLEMENTATION PHASE II STREAMS		10/02/95 10/31/97																												
1A2502_M	BAT IMPLEMENTATION PHASE II STREAMS	TPA	10/31/97 10/31/97																												
1A2611	340 FACILITY SECONDARY CONTAINMENT - W-302		10/02/95 08/31/99																												

1A2413-001

1A2413-002

1A2413-003

1A2413-004

M-17-00B

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

3.2.2 Milestone List

Liquid Effluents Program Milestones					
Milestone Type	Control Number	RL WBS	ADS Number	Milestone Description	Milestone Completion Date
	FY 1995				
RL	LEP-94-024	1.2.2.1.2	2300-0	Submit Operations and Maintenance Document to Ecology for Compliance with WAC 173-240-150 (200 Area ETF) Completed 11-30-94	11-30-94 RL 12-31-94 Ecology
RL	LEP-94-002	1.2.2.1.2	2300-0	Readiness Review Team Declares Readiness (200 Area ETF) C/R LET-95-025 revised date	03-31-95 10-19-95
RL	LEP-94-004	1.2.2.1.2	2300-0	Complete On Job Training (200 Area ETF personnel) C/R LET-95-025 deleted milestone - duplicate of LEP-95-033	01-27-95 deleted
RL	LEP-94-028	1.2.2.1.1	2300-0	Complete Operational Testing of LERF Basin #44 Completed 07-29-94	11-15-94
RL	LEP-94-032	1.2.2.1.5	2300-0	Initiate ADP Plan Preparation (Project W-252, Phase II Streams) Completed 10-11-94	12-01-94
RL	LEP-95-037	1.2.2.1.3	2300-0	300 Area TEDF Facility Manager Declares 300 Area TEDF Readiness Assessment to be Complete Completed 10-31-94	10-31-94
RL	LEP-95-043	1.2.2.1.3	2300-0	WHC Readiness Assessment Team Declares 300 Area TEDF Readiness to RL Completed 10-31-94	11-14-95
TPA - RL	LEP-95-036 M-17-09	1.2.2.1.3	2300-0	Operate 300 Area Treated Effluent Disposal Facility. Completed 12-28-94	12-31-94
TPA - RL	LEP-95-041 M-26-03	1.2.2.1.1	2300-0	Cease Discharge 242-A Evaporator Process Condensate to LERF Basins. Deleted C/R M-26-95-01	12-31-94 08-31-95 deleted
RL	LEP-95-038	1.2.2.1.3	2300-0	Complete Project W-345, 307 Basins Maintenance Expense Project Completed 03-24-95	12-31-94

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Liquid Effluents Program Milestones					
Milestone Type	Control Number	RL WBS	ADS Number	Milestone Description	Milestone Completion Date
RL	LEP-95-028	1.2.2.1.5	2300-1	Initiate Definitive Design for Phase II Stream BAT/AKART Project W-252 Completed 01-12-95	01-30-95
RL	LEP-95-030	1.2.2.1.4	2300-0	Complete Groundwater Impact Assessment for 216-B3 Pond Completed 01-25-95	01-31-95
RL	LEP-95-031	1.2.2.1.4	2300-0	Complete Groundwater Impact Assessment for T-1 Ditch Completed 02-23-95	02-28-95
RL	LEP-95-032	1.2.2.1.4	2300-0	Complete Groundwater Impact Assessment for T-4-2 Ditch Completed 02-23-95	02-28-95
RL	LEP-95-033	1.2.2.1.2	2300-0	Complete the 200 Area ETF Nuclear Process Operator Initial Certification. C/R LET-95-025 revised date	03-17-95 10-12-95
RL	LEP-95-042	1.2.2.1.2	2300-0	WHC Declares 200 Area TEF Readiness Completed 04-18-95	05-01-95
RL	LEP-95-039	1.2.2.1.3	2300-0	NESHAPS - 340 Facility Stack Monitor (Project W-337) Construction Upgrades Complete Completed 12-16-94	12-30-94
RL	LEP-95-034	1.2.2.1.2	2300-0	WHC Declares 200 Area ETF Facility Readiness to DOE-RL. C/R LET-95-025 revised date	05-01-95 10-22-95
RL	LEP-95-035	1.2.2.1.2	2300-0	Complete Operations Test Procedures for the 200 Area Liquid Effluent Treatment Facility C/R LET-95-025 deleted milestone	02-28-95 deleted
RL	LEP-95-040	1.2.2.1.3	2300-0	Complete Project W-353, "300 Area Diverter Upgrades" C/R LET-95-011 changed date	05-31-95 02-28-96
TPA - RL	LEP-95-002 M-17-00A	1.2.2.1.1	2300-0	Complete Liquid Effluent Treatment Facility/Upgrades for Phase I Streams Completed 05-26-95	06-30-95
TPA - RL	LEP-95-007 M-26-04	1.2.2.1.1	2300-0	Remove All Hazardous Waste Residues From LERF Units Deleted - C/R M-26-95-01	06-30-95 08-31-95
TPA - RL	LEP-95-008 M-17-08	1.2.2.1.2	2300-0	Operate The 200 Area Treated Effluent Disposal Facility Completed 04-25-95	06-30-95

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Liquid Effluents Program Milestones					
Milestone Type	Control Number	RL WBS	ADS Number	Milestone Description	Milestone Completion Date
TPA - RL	LEP-95-009 M-17-08B	1.2.2.1.2	2300-0	Implement BAT/AKART - 200 Area TEDF Streams Completed 05-26-95	06-30-95
TPA - RL	LEP-95-010 M-17-10	1.2.2.1.1	2300-0	Cease Discharge to Hazardous Waste Land Disposal Units Completed 06-27-95	06-30-95
TPA - RL	LEP-95-011 M-17-14	1.2.2.1.2	2300-0	Initiate Operations - 200 Area Effluent Treatment Facility (This milestone must be completed by 3-30-96 to fulfill the requirements of M-17-000A)	06-30-95
TPA - RL	LEP-95-018 M-17-29	1.2.2.1.2	2300-0	Implement BAT/AKART for 242-A Evaporator Process Condensate (200 Area ETF Start up) (This milestone must be completed by 3-30-96 to fulfill the requirements of M-17-000A)	06-30-95
TPA - RL	LEP-95-029 M-26-05B	1.2.2.1.4	2300-0	Complete Annual Evaluation of Tritium Treatment Technology (WHC to RL 07-31-95; RL to Ecology/EPA 08-31-95) Completed 07-31-95/08-24-95	07-31-95 08-31-95
	FY 1996				
RL	LEP-96-001	1.2.2.1.5 1A2502	2300-1	Complete Definitive Design for Phase II Stream BAT/AKART Implementation Project W-252	02-28-96
RL	LEP-96-002	1.2.2.1.5 1A2502	2300-1	Start Construction of Phase II Stream BAT/AKART Implementation Project W-252	05-30-96
TPA-RL	LEP-96-003 M-26-05C	1.2.2.1.2 1A2212	2300-0	Complete Annual Evaluation of Tritium Treatment Technology (WHC to RL 07-31-96; RL to Ecology/EPA 08-31-96)	07-31-96 08-31-96
RL	LEP-96-004	1.2.2.1.2 1A2213	2300-0	Process All LERF Material Inventory and Declare ETF in Suitable Standby Condition.	06-30-96
RL	LEP-96-005	1.2.2.1.2 1A2211	2300-0	Dispose of 150 Million Gallons of Treated Effluent Through the 200 Area TEDF	09-30-96
RL	LEP-96-006	1.2.2.1.3 1A2310	2300-0	Treat and Dispose of 50 Million Gallons of Process Wastewater Through the 300 Area TEDF	09-30-96

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Liquid Effluents Program Milestones					
Milestone Type	Control Number	RL WBS	ADS Number	Milestone Description	Milestone Completion Date
RL	LEP-96-007	1.2.2.1.4 1A2413	2300-0	Complete WAC-216 Permit Application for Category 1 Miscellaneous Streams	11/15/95 to RL 11/30/95 to WDOE
RL	LEP-96-008	1.2.2.1.4 1A2413	2300-0	Complete WAC-216 Permit Application for Category 2 Miscellaneous Streams	09/15/96 to RL 09/30/96 to WDOE
RL	LEP-96-009	1.2.2.1.4 1A2413	2300-0	Prepare Best Management Practices (BMP) Engineering Report for the Site-wide Miscellaneous Streams Program	7/26/96 to RL 8/9/96 to WDOE
RL	LEP-96-010	1.2.2.1.4 1A2413	2300-0	Submit an annual update of Miscellaneous Stream Inventory	8/30/96 to RL 9/30/96 to WDOE
	LEP-96-011			Milestone Number Not Used	
RL	LEP-96-012	1.2.2.1.2 1A2211	2300-0	200 Area TEDF Discharge Monitoring Report to Demonstrate Compliance with WAC 216 Permit. (Due quarterly, NLT 30 days following the completed reporting period)	11/15/95 to RL 02/15/96 to RL 05/16/96 to RL 07/16/96 to RL 10/16/96 to RL +14 days to WDOE
RL	LEP-96-013	1.2.2.1.2 1A2211	2300-0	Perform Annual Review/Update of 200 Area TEDF WAC-216 Permit Spill Control/Contingency Plans	04/17/96 to RL 05/17/96 to WDOE
RL	LEP-96-014	1.2.2.1.2 1A2211	2300-0	Perform Annual Review/Update of 200 Area TEDF WAC-216 Permit Solid Waste Control Plans	04/17/96 to RL 05/17/96 to WDOE
	LEP-96-015			Milestone Number Not Used	
RL	LEP-96-016	1.2.2.1.2 1A2211	2300-0	Operate 200 Area TEDF Within SWD Permit Enforcement Limits and Early Warning Values	12/31/95 03/31/96 06/30/96 09/30/96
RL	LEP-96-017	1.2.2.1.3 1A2310	2300-0	Prepare and Submit 300 Area TEDF NPDES Permit Modification	08/15/96

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Liquid Effluents Program Milestones					
Milestone Type	Control Number	RL WBS	ADS Number	Milestone Description	Milestone Completion Date
RL	LEP-96-018	1.2.2.1.3 1A2340	2300-0	Complete Tank Integrity Assessment for 340 Facility Vault Tanks	09/15/96 to RL 09/30/96 to WDOE
RL	LEP-96-019	1.2.2.1.3 1A2340	2300-0	Prepare 340 Waste Handling Facility Shutdown Plan	09/15/96
RL	LEP-96-020	1.2.2.1.2 1A2212	2300-0	Submit ETF Volatile Organic Carbon Emissions Test Plan	10/30/95 to RL 11/30/95 to WDOE
RL	LEP-96-021	1.2.2.1.2 1A2212	2300-0	Submit ETF Volatile Organic Carbon Emission Test Report	03/01/96 to RL 04/01/96 to WDOE
RL	LEP-96-022	1.2.2.1.2 1A2212	2300-0	Submit ETF Groundwater Monitoring Plan (Draft)	12/30/95 to RL 01/30/96 to WDOE
RL	LEP-96-023	1.2.2.1.2 1A2212	2300-0	Submit ETF Groundwater Monitoring Plan (Final) (Due to WDOE 30 days after receipt of WDOE comments on draft submission - see LEP96-022)	open 3/30/96
RL	LEP-96-024	1.2.2.1.2 1A2213	2300-0	Submit Final LERF Sampling Plan (as part of the Waste Analysis Plan)	10/30/95
RL	LEP-96-025	1.2.2.1.2 1A2212	2300-0	Submit ETF Operations and Maintenance Manuals Matrix	10/30/95
RL	LEP-96-026	1.2.2.1.2 1A2212	2300-0	Submit Report of Annual Review/Update of ETF Operations and Maintenance Manuals	09/30/96 to RL 10/30/96 to WDOE
RL	LEP-96-027	1.2.2.1.2 1A2213	2300-0	Submit LERF Sampling Report	10/08/95 to RL 11/08/95 to WDOE
RL	LEP-96-028	1.2.2.1.2 1A2212	2300-0	Submit ETF Effluent and Groundwater Discharge Monitoring Reports (Due quarterly, NLT 60 days following the completed reporting period)	02/15/96 to RL 05/16/96 to RL 08/15/96 to RL 11/15/96 to RL +14 days to WDOE
RL	LEP-96-029	1.2.2.1.2 1A2211	2300-0	Submit 200 Area TEF Effluent Variability Study Results	06/17/96 to RL 07/17/96 to WDOE

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Liquid Effluents Program Milestones					
Milestone Type	Control Number	RL WBS	ADS Number	Milestone Description	Milestone Completion Date
	LEP-96-030			Milestone Number Not Used	
RL	LEP-96-031	1.2.2.1.2 1A2211	2300-0	Submit Report of Annual Review/Update of 200 Area TEDF Operations and Maintenance Manuals	04/17/96 to RL 05/17/96 to WDOE
RL	LEP-96-032	1.2.2.1.2 1A2212	2300-0	Report ETF Verification Tank Test Results	02/29/96 to RL 03/29/96 to EPA
RL	LEP-96-033	1.2.2.1.2 1A2214	2300-0	Provide EPA-HQ Two Week Notice of ETF Startup	11/16/95
RL	LEP-96-034	1.2.2.1.2 1A2211	2300-0	Submit Annual Report on 200 Area LEF Activities	02/01/96 to RL 03/01/96 to WDOE
	FY 1997				
RL	LEP-97-001	1.2.2.1.5	2300-1	Complete Phase II Stream BAT/AKART Implementation Project 216 Permit Revision	01-30-97
RL	LEP-97-002	1.2.2.1.5	2300-1	Complete Construction of Phase II Stream BAT/AKART Implementation Project W-252	05-30-97
TPA - RL	LEP-97-003 M-26-05D	1.2.2.1.2	2300-0	Complete Annual Evaluation of Tritium Treatment Technology	07-31-97 to RL 08-31-97 to WDOE
RL	LEP-97-004	1.2.2.1.4	2300-0	Complete WAC-216 Permit Application for Category 3 Miscellaneous Streams	8/30/97 to RL 9/30/97 to WDOE
RL	LEP-97-005	1.2.2.1.4	2300-0	Submit an annual update of Miscellaneous Stream Inventory	8/30/97 to RL 9/30/97 to WDOE

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Liquid Effluents Program Milestones					
Milestone Type	Control Number	RL WBS	ADS Number	Milestone Description	Milestone Completion Date
RL	LEP-97-006	1.2.2.1.2	2300-0	200 Area TEF Discharge Monitoring Report to Demonstrate Compliance with WAC 216 Permit. (Due quarterly, NLT 30 days following the completed reporting period)	10/16/96 to RL 01/16/97 to RL 04/16/97 to RL 07/16/97 to RL +14 days to WDOE
RL	LEP-97-007	1.2.2.1.2	2300-0	Perform Annual Update of 200 Area TEF WAC-216 Permit Spill Control/Contingency Plans	05/17/97
RL	LEP-97-008	1.2.2.1.2	2300-0	Perform Annual Review/Update of 200 Area TEF WAC-216 Permit Solid Waste Control Plans	05/17/97
RL	LEP-97-009	1.2.2.1.2	2300-0	200 Area TEF Operations and Maintenance Plans and Summary Matrix Annual Update IAW WAC-216 Permit	05/17/97
RL	LEP-97-010	1.2.2.1.2	2300-0	Submit ETF/LERF/242-A Evaporator Part B Permit Application	01/29/97 to RL 02/28/97 to WDOE
RL	LEP-97-011	1.2.2.1.2 1A2211	2300-0	200 Area TEF Discharge Monitoring Report to Demonstrate Compliance with WAC 216 Permit. (Due quarterly, NLT 30 days following the completed reporting period)	11/15/96 to RL 02/15/97 to RL 05/16/97 to RL 07/16/97 to RL 10/16/96 to RL +14 days to WDOE
RL	LEP-97-012	1.2.2.1.2 1A2211	2300-0	Operate 200 Area TEF Within SWD Permit Enforcement Limits and Early Warning Values	12/31/96 03/31/97 06/30/97 09/30/97
RL	LEP-97-013	1.2.2.1.2 1A2212	2300-0	Submit ETF Effluent and Groundwater Discharge Monitoring Reports (Due quarterly, NLT 60 days following the completed reporting period)	02/15/97 to RL 05/16/97 to RL 08/15/97 to RL 11/15/97 to RL +14 days to WDOE

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Liquid Effluents Program Milestones					
Milestone Type	Control Number	RL WBS	ADS Number	Milestone Description	Milestone Completion Date
RL	LEP-97-014	1.2.2.1.2 1A2211	2300-0	Submit 200 Area TEF Effluent and Groundwater Discharge Monitoring Reports (Quarterly)	10/16/97 to RL 01/16/97 to RL 04/16/97 to RL 07/16/97 to RL +14 days to WDOE
	FY 1998:				
RL	LEP-98-001	1.2.2.1.5	2300-1	Complete Phase II Stream Project Operational Readiness Evaluation	09-30-97
	LEP-98-002			Milestone Number Not Used - Was duplicate of milestone LET-98-003	
TPA - RL	LEP-98-003 M-17-00B	1.2.2.1.5	2300-1	Implement BAT/AKART For All Phase II Liquid Effluent Streams	10-31-97
TPA - RL	LEP-98-004 M-26-05E	1.2.2.1.2	2300-0	Complete Annual Evaluation of Tritium Treatment Technology (WHC to RL 07-31-98; RL to Ecology/EPA 08-31-98)	07-31-98 to RL 08-31-98 to WDOE
RL	LEP-98-005	1.2.2.1.4	2300-0	Complete WAC-216 Permit Application for Category 4 Miscellaneous Streams	8/30/98 to RL 9/30/98 to WDOE
RL	LEP-98-006	1.2.2.1.4	2300-0	Submit an annual update of Miscellaneous Stream Inventory	8/30/98 to RL 9/30/98 to WDOE
RL	LEP-98-007	1.2.2.1.2	2300-0	200 Area TEF Discharge Monitoring Report to Demonstrate Compliance with WAC 216 Permit. (Due quarterly, NLT 30 days following the completed reporting period)	10/16/97 to RL 01/16/98 to RL 04/16/98 to RL 07/16/98 to RL 09/16/98 to RL +14 DAYS TO WDOE
RL	LEP-98-008	1.2.2.1.2	2300-0	Perform Annual Update of 200 Area TEF WAC-216 Permit Spill Control/Contingency Plans	05/17/98

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Liquid Effluents Program Milestones					
Milestone Type	Control Number	RL WBS	ADS Number	Milestone Description	Milestone Completion Date
RL	LEP-98-009	1.2.2.1.2	2300-0	Perform Annual Review/Update of 200 Area TEDF WAC-216 Permit Solid Waste Control Plans	05/17/98
RL	LEP-98-010	1.2.2.1.2	2300-0	200 Area TEDF Operations and Maintenance Plans and Summary Matrix Annual Update IAW WAC-216 Permit	05/17/98
	LEP-98-011			Milestone Number Not Used	
RL	LEP-98-012	1.2.2.1.2 1A2211	2300-0	Operate 200 Area TEDF Within SWD Permit Enforcement Limits and Early Warning Values	12/31/97 03/31/98 06/30/98 09/30/98
RL	LEP-98-013	1.2.2.1.2 1A2212	2300-0	Submit ETF Effluent and Groundwater Discharge Monitoring Reports (Due quarterly, NLT 60 days following the completed reporting period)	02/15/98 to RL 05/16/98 to RL 08/16/98 to RL 11/16/98 to RL +14 days to WDOE
RL	LEP-98-014	1.2.2.1.2 1A2211	2300-0	Submit 200 Area TEDF Effluent and Groundwater Discharge Monitoring Reports (Quarterly)	01/15/98 to RL 04/15/98 to RL 07/15/98 to RL 10/15/98 to RL +14 days to WDOE
	FY 1999				
TPA - RL	LEP-99-001 M-26-05F	1.2.2.1.2	2300-0	Complete Annual Evaluation of Tritium Treatment Technology (WHC to RL 07-31-99; RL to Ecology/EPA 08-31-99)	07-31-99 to RL 08-31-99 to WDOE
RL	LEP-99-002	1.2.2.1.2	2300-0	200 Area TEDF Discharge Monitoring Report to Demonstrate Compliance with WAC 216 Permit. (Due quarterly, NLT 30 days following the completed reporting period)	10/16/98 to RL 01/16/99 to RL 04/16/99 to RL 07/16/99 to RL +14 days to WDOE

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Liquid Effluents Program Milestones					
Milestone Type	Control Number	RL WBS	ADS Number	Milestone Description	Milestone Completion Date
RL	LEP-99-003	1.2.2.1.2	2300-0	Perform Annual Update of 200 Area TEDF WAC-216 Permit Spill Control/Contingency Plans	05/17/99
RL	LEP-99-004	1.2.2.1.2	2300-0	Perform Annual Review/Update of 200 Area TEDF WAC-216 Permit Solid Waste Control Plans	05/17/99
RL	LEP-99-005	1.2.2.1.2	2300-0	200 Area TEDF Operations and Maintenance Plans and Summary Matrix Annual Update IAW WAC-216 Permit	05/17/99
RL	LEP-99-006	1.2.2.1.2	2300-0	Complete Draft 300 Area NPDES Permit Reapplication (Final Re-application due to EPA Nov 1999)	11/30/98
RL	LEP-99-007	1.2.2.1.2 1A2211	2300-0	200 Area TEDF Discharge Monitoring Report to Demonstrate Compliance with WAC 216 Permit. (Due quarterly, NLT 30 days following the completed reporting period)	10/16/98 to RL 01/16/99 to RL 04/16/99 to RL 07/16/99 to RL +14 days to WDOE
RL	LEP-99-008	1.2.2.1.2 1A2211	2300-0	Operate 200 Area TEDF Within SMD Permit Enforcement Limits and Early Warning Values	12/31/98 03/31/99 06/30/99 09/30/99
RL	LEP-99-009	1.2.2.1.2 1A2212	2300-0	Submit ETF Effluent and Groundwater Discharge Monitoring Reports (Due quarterly, NLT 60 days following the completed reporting period)	02/15/99 to RL 05/16/99 to RL 08/16/99 to RL 11/16/99 to RL +14 days to WDOE
RL	LEP-99-010	1.2.2.1.2 1A2211	2300-0	Submit 200 Area TEDF Effluent and Groundwater Discharge Monitoring Reports (Quarterly)	01/16/99 to RL 04/16/99 to RL 07/16/99 to RL 10/16/99 to RL +14 days to WDOE
	FY 2000				

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Liquid Effluents Program Milestones					
Milestone Type	Control Number	RL WBS	ADS Number	Milestone Description	Milestone Completion Date
TPA - RL	LEP-00-001 M-26-05G	1.2.2.1.2	2300-0	Complete Annual Evaluation of Tritium Treatment Technology (WHC to RL 07-31-00; RL to Ecology/EPA 08-31-00)	07-31-00 08-31-00
RL	LEP-00-002	1.2.2.1.2	2300-0	200 Area TEDF Discharge Monitoring Report to Demonstrate Compliance with WAC 216 Permit. (Due quarterly, NLT 30 days following the completed reporting period)	10/16/99 to RL 01/16/00 to RL 04/16/00 to RL 07/16/00 to RL +14 days to WDOE
RL	LEP-00-003	1.2.2.1.2	2300-0	Submit Reapplication for State Waste Discharge Permit for 200 Area TEDF	01/18/00 to RL 02/18/00 to WDOE
RL	LEP-00-004	1.2.2.1.2	2300-0	Perform Annual Update of 200 Area TEDF WAC-216 Permit Spill Control/Contingency Plans	05/17/00
RL	LEP-00-005	1.2.2.1.2	2300-0	Perform Annual Review/Update of 200 Area TEDF WAC-216 Permit Solid Waste Control Plans	05/17/00
RL	LEP-00-006	1.2.2.1.2	2300-0	200 Area TEDF Operations and Maintenance Plans and Summary Matrix Annual Update IAW WAC-216 Permit	05/17/00
RL	LEP-00-007	1.2.2.1.2 1A2211	2300-0	200 Area TEDF Discharge Monitoring Report to Demonstrate Compliance with WAC 216 Permit. (Due quarterly, NLT 30 days following the completed reporting period)	10/16/99 to RL 01/16/00 to RL 04/16/00 to RL 07/16/00 to RL +14 days to WDOE
RL	LEP-00-008	1.2.2.1.2 1A2211	2300-0	Operate 200 Area TEDF Within SWD Permit Enforcement Limits and Early Warning Values	12/31/99 03/31/00 06/30/00 09/30/00
RL	LEP-00-009	1.2.2.1.2 1A2212	2300-0	Submit ETF Effluent and Groundwater Discharge Monitoring Reports (Due quarterly, NLT 60 days following the completed reporting period)	02/16/00 to RL 05/16/00 to RL 08/16/00 to RL 11/16/00 to RL +14 days to WDOE

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Liquid Effluents Program Milestones					
Milestone Type	Control Number	RL WBS	ADS Number	Milestone Description	Milestone Completion Date
RL	LEP-00-010	1.2.2.1.2 1A2211	2300-0	Submit 200 Area TEDF Effluent and Groundwater Discharge Monitoring Reports (Quarterly)	01/16/00 to RL 04/16/00 to RL 07/16/00 to RL 10/16/00 to RL +14 days to WDOE
	FY: 2001				
TPA - RL	LEP-01-001 M-26-05H	1.2.2.1.2	2300-0	Complete Annual Evaluation of Tritium Treatment Technology (WHC to RL 07-31-01; RL to Ecology/EPA 08-31-01)	07-31-01 08-31-01
RL	LEP-01-002	1.2.2.1.2	2300-0	200 Area TEDF Discharge Monitoring Report to Demonstrate Compliance with WAC 216 Permit. (Due quarterly, NLT 30 days following the completed reporting period)	10/16/00 to RL 01/16/01 to RL 04/16/01 to RL 07/16/01 to RL +14 days to WDOE
RL	LEP-01-003	1.2.2.1.2	2300-0	Perform Annual Update of 200 Area TEDF WAC-216 Permit Spill Control/Contingency Plans	05/17/01
RL	LEP-01-004	1.2.2.1.2	2300-0	Perform Annual Review/Update of 200 Area TEDF WAC-216 Permit Solid Waste Control Plans	05/17/01
RL	LEP-01-005	1.2.2.1.2	2300-0	200 Area TEDF Operations and Maintenance Plans and Summary Matrix Annual Update IAW WAC-216 Permit	05/17/01
RL	LEP-01-006	1.2.2.1.2 1A2211	2300-0	200 Area TEDF Discharge Monitoring Report to Demonstrate Compliance with WAC 216 Permit. (Due quarterly, NLT 30 days following the completed reporting period)	10/16/00 to RL 01/16/01 to RL 04/16/01 to RL 07/16/01 to RL +14 days to WDOE
RL	LEP-01-007	1.2.2.1.2 1A2211	2300-0	Operate 200 Area TEDF Within SWD Permit Enforcement Limits and Early Warning Values	12/31/00 03/31/01 06/30/01 09/30/01

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Liquid Effluents Program Milestones					
Milestone Type	Control Number	RL WBS	ADS Number	Milestone Description	Milestone Completion Date
RL	LEP-01-008	1.2.2.1.2 1A2212	2300-0	Submit ETF Effluent and Groundwater Discharge Monitoring Reports (Due quarterly, NLT 60 days following the completed reporting period)	02/16/01 to RL 05/16/01 to RL 08/16/01 to RL 11/16/01 to RL +14 days to WDOE
RL	LEP-01-009	1.2.2.1.2 1A2211	2300-0	Submit 200 Area TEDF Effluent and Groundwater Discharge Monitoring Reports (Quarterly)	01/16/01 to RL 04/16/01 to RL 07/16/01 to RL 10/16/01 to RL +14 days to WDOE

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

3.2.3 Milestone Description Sheets

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Process All LERF Material Inventory and Declare ETF in Suitable Standby Condition.			Date: 08-25-95
Assigned To: 200 Area ETF Operations			CIN:
Program WBS Designator: 1.2.2.1.2			Due Date: 06-30-96
Control Number: LEP-96-004			Rev:
MILESTONE TYPE: ☐ DOE-HQ ☒ DOE-RL ☐ CONTRACTOR	DIVISION: ☐ State ☐ Federal ☒ DOE ☐ RCRA ☐ TPA Number	DELIVERABLE: ☒ Report ☐ Letter ☐ Drawings ☐ Other (specify)	ADDRESS TO: ☐ DOE-HQ ☒ DOE-RL ☐ Other (specify)
Milestone Description: Complete the processing of all the LERF inventory and declare the ETF is in suitable standby condition.			
Description of what constitutes completion of this milestone: Prepare a letter report to RL indicating completion of the campaign and successful completion of all activities necessary to place the ETF into a standby condition.			
Cost Account Manager: M. W. Peres <i>M. W. Peres</i>		Program/Project Manager A. J. DiLiberto <i>A. J. DiLiberto</i>	
Date: 9/22/95		Date: 9/22/95	
Program Element Manager		DOE Monitor E. M. Bowers <i>E. M. Bowers</i>	
Date		Date: 9/22/95	

**LIQUID EFFLUENTS
WBS 1.2.2.1**

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Complete WAC-216 Permit Application for Category 1 Miscellaneous Streams			Date: 6/12/95
Assigned To: Liquid Effluents Engineering (LEE)			CIN:
Program WBS Designator: 1A2413040A			Due Date: 11/15/95 10/31/95 to RL 11/30/95 to WDOE
Control Number: LEP-96-007			Rev:
MILESTONE TYPE: ☐ DOE-HQ ☒ DOE-RL ☐ CONTRACTOR	DIVISION: ☒ State ☐ Federal ☐ DOE ☐ RCRA ☐ TPA Number	DELIVERABLE: ☐ Report ☐ Letter ☐ Drawings ☒ Other (specify) Permit Application	ADDRESS TO: ☐ DOE-HQ ☐ DOE-RL ☒ Other (specify) Washington State Department of Ecology
Milestone Description: Submit a WAC-216 categorical permit application for hydro-testing, maintenance, and construction discharges.			
<small>(For Category description, see the "Plan and Schedule for Disposition and Regulatory Compliance for Miscellaneous Streams, DOE/RL-93-94, Rev 1)</small>			
Description of what constitutes completion of this milestone: Confirmation that Ecology received the permit application			
Cost Account Manager: K. J. Lueck		Program/Project Manager A. J. DiLiberto	
Program Element Manager E. M. Bowers		DOE Monitor E. M. Bowers	
Date		Date	
9/25/95		9-22-95	
Date		Date	
9/22/95		9/22/95	

**LIQUID EFFLUENTS
WBS 1.2.2.1**

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Complete WAC-216 Permit Application for Category 2 Miscellaneous Streams			Date: 6/12/95
Assigned To: Liquid Effluents Engineering (LEE)			CIN:
Program WBS Designator: 1A2413040A			Due Date: 9/15/96 to RL 9/30/96 to WDOE
Control Number: LEP-96-008			Rev:
MILESTONE TYPE: ☐ DOE-HQ ☒ DOE-RL ☐ CONTRACTOR	DIVISION: ☒ State ☐ Federal ☐ DOE ☐ RCRA ☐ TPA Number	DELIVERABLE: ☐ Report ☐ Letter ☐ Drawings ☒ Other (specify) Permit Application	ADDRESS TO: ☐ DOE-HQ ☐ DOE-RL ☒ Other (specify) Washington State Department of Ecology
Milestone Description: Submit a WAC-216 categorical permit application for cooling water discharges originating from groundwater, surface water, and potable water, along with steam condensate discharges originating from potable water.			
<small>(For Category description, see the "Plan and Schedule for Disposition and Regulatory Compliance for Miscellaneous Streams, DOE/RL-93-94, Rev 1)</small>			
Description of what constitutes completion of this milestone: Confirmation that Ecology received the permit application			
Cost Account Manager: <i>K. J. Lueck</i>		Date: <i>9/25/95</i>	
Program/Project Manager <i>A. J. DiLiberto</i>		Date: <i>9/22/95</i>	
Program Element Manager <i>M. Bowers</i>		Date: <i>9/22/95</i>	
DOE Monitor <i>E. M. Bowers</i>		Date: <i>9/22/95</i>	

**LIQUID EFFLUENTS
WBS 1.2.2.1**

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Prepare Best Management Practices (BMP) Engineering Report for the Site-wide Miscellaneous Streams Program			Date: 6/12/95
Assigned To: Liquid Effluents Engineering (LEE)			CIN:
Program WBS Designator: 1.2.2.1.4			Due Date: 7/26/96 to RL 8/9/96 to WDOE
Control Number: LEP-96-009			Rev:
MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ ☒ DOE-RL ☐ CONTRACTOR	☒ State ☐ Federal ☐ DOE ☐ RCRA ☐ TPA Number	☒ Report ☐ Letter ☐ Drawings Other (specify)	☐ DOE-HQ ☐ DOE-RL ☒ Other (specify) Washington State Department of Ecology
Milestone Description: Prepare Best Management Practices (BMP) Engineering Report for the site-wide miscellaneous streams program. The report will submit the options, the preferred selections, and schedule for the implementation of the BMPs to the regulators. The BMP Engineering Report will identify the actions required for the 96 streams previously identified for the inclusion in the study.			
Description of what constitutes completion of this milestone: A report submitted to RL for review and approval which is suitable for forwarding to Ecology.			
Cost Account Manager: <i>K. J. Lueck</i> K. J. Lueck		Program/Project Manager <i>A. DiLiberto</i> A. DiLiberto	
Date: 9/25/95		Date: 9/22/95	
Program Element Manager <i>M. Lueck</i>		DOE Monitor <i>E. M. Bowers</i> E. M. Bowers	
Date: 9/22/95		Date: 9/22/95	

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WBS 1.2.2.1**

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Submit an annual update of Miscellaneous Stream Inventory		Date: 6/12/95	
Assigned To: Liquid Effluents Engineering (LEE)		CIN:	
Program WBS Designator: 1A2413040A		Due Date: 8/30/96-98 to RL 9/30/96-98 to WDOE	
Control Number: LEP-96-010; LEP-97-005; LEP-98-006		Rev:	
MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ ☒ DOE-RL ☐ CONTRACTOR	☒ State ☐ Federal ☐ DOE ☐ RCRA ☐ TPA Number	☒ Report ☐ Letter ☐ Drawings Other (specify)	☐ DOE-HQ ☐ DOE-RL ☒ Other (specify) Washington State Department of Ecology
Milestone Description: Submit an annual update of Miscellaneous Stream inventory			
Description of what constitutes completion of this milestone: Conformation that Ecology received the updated Miscellaneous Stream inventory.			
Cost Account Manager: <i>K. J. Lueck</i> K. J. Lueck		Program/Project Manager <i>A. J. DiLiberto</i> A. J. DiLiberto	
Date <i>9/25/95</i>		Date <i>9/22/95</i>	
Program Element Manager <i>[Signature]</i>		DOE Monitor <i>E. M. Bowers</i> E. M. Bowers	
Date <i>9/22/95</i>		Date <i>9/22/95</i>	

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: 200 Area TEF Discharge Monitoring Report to Demonstrate Compliance with WAC 216 Permit. (Due quarterly, NLT 30 days following the completed reporting period)		Date: 07/19/95	
Assigned To: Manager, 200 Area LEF		CIN:	
Program WBS Designator: 1.2.2.1.2		Due Date: 11/15/95 to RL 02/15/96 to RL 05/16/96 to RL 07/16/96 to RL 10/16/96 to RL + 14 days to WDOE	
Control Number: LEP-96-012, LEP-97-006, LEP-98-007, LEP-99-002, LEP-00-002, LEP-01-002		Rev:	
MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ ☒ DOE-RL ☐ CONTRACTOR	☒ State ☐ Federal ☐ DOE ☐ RCRA ☐ TPA Number	☒ Report ☐ Letter ☐ Drawings ☐ Other (specify)	☐ DOE-HQ ☐ DOE-RL ☐ Other (specify) ☒ WDOE
<p>Milestone Description: Monitor, and report the results, the total effluent and groundwater to verify compliance with all permit enforcement limits and determine if Early Warning Values are being approached. This monitoring will also be used to verify that BAT/AKART source, treatment, and technology controls are being met.</p> <p>For details see Sections S.9 and G.11 of the permit.</p>			
<p>Description of what constitutes completion of this milestone: Report to Ecology reporting the results of the period's monitoring.</p>			
Cost Account Manager:	Date	Program/Project Manager	Date
M. W. Peres <i>MW Peres</i>	9/22/95	A. J. DiLiberto <i>AJ DiLiberto</i>	9/22/95
Program Element Manager	Date	DOE Monitor	Date
		E. M. Bowers <i>E M Bowers</i>	9-22-95

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WBS 1.2.2.1**

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Perform Annual Review/Update of 200 Area TEFW WAC-216 Permit Spill Control/Contingency Plans			Date: 07/19/95
Assigned To: Manager, 200 Area LEF			CIN:
Program WBS Designator: 1.2.2.1.2			Due Date: 04/17/96-01 to RL 05/17/96-01 to WDOE
Control Number: LEP-96-013, LEP-97-007, LEP-98-008, LEP-99-003, LEP-00-004, LEP-01-003			Rev:
MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ ☒ DOE-RL ☐ CONTRACTOR	☒ State ☐ Federal ☐ DOE ☐ RCRA ☐ TPA Number	☒ Report ☐ Letter ☐ Drawings ☐ Other (specify)	☐ DOE-HQ ☐ DOE-RL ☐ Other (specify) ☒ WDOE
<p>Milestone Description: Review and update spill control plans, made available to Ecology upon the effective date of the permit, as needed, at least annually and notify Ecology of the changes. See Section G.19 of the permit for complete description of requirements.</p>			
<p>Description of what constitutes completion of this milestone: Letter report to Ecology indicating that reviews have been completed and identifying changes, if any. For revisions, a letter describing the requested changes will be submitted for approval.</p>			
Cost Account Manager:		Program/Project Manager	
M. W. Peres <i>M. W. Peres</i> 9/22/95		A. G. DiLiberto <i>A. G. DiLiberto</i> 9/22/95	
Program Element Manager		DOE Monitor	
		E. M. Bowers <i>E. M. Bowers</i> 9/22/95	

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WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Perform Annual Review/Update of 200 Area TEFW WAC-216 Permit Solid Waste Control Plans			Date: 07/19/95
Assigned To: Manager, 200 Area LEF			CIN:
Program WBS Designator: 1.2.2.1.2			Due Date: 04/17/96-01 to RL 5/17/96-01 to WDOE
Control Number: LEP-96-014, LEP-97-008, LEP-98-009, LEP-99-004, LEP-00-005, LEP-01-004			Rev:
MILESTONE TYPE: ☐ DOE-HQ ☒ DOE-RL ☐ CONTRACTOR	DIVISION: ☒ State ☐ Federal ☐ DOE ☐ RCRA ☐ TPA Number	DELIVERABLE: ☒ Report ☐ Letter ☐ Drawings ☐ Other (specify)	ADDRESS TO: ☐ DOE-HQ ☐ DOE-RL ☐ Other (specify) ☒ WDOE
<p>Milestone Description: Solid Waste Control Plans were made available to Ecology by the effective date of the permit. Each plan is required to be review annually and updated as needed. Any proposed revision or modification of the solid waste control plans must be submitted to Ecology for prior approval.</p> <p>See Section G.19 of the permit for complete description.</p> <p>Description of what constitutes completion of this milestone: Letter report to Ecology indicating reviews have been completed. For revisions, a letter describing the requested change will be submitted for approval.</p>			
Cost Account Manager: M. W. Peres <i>[Signature]</i>		Program/Project Manager <i>A. G. DiLiberto</i> A. G. DiLiberto	
Program Element Manager _____		DOE Monitor <i>E. M. Bowers</i> E. M. Bowers	
Date 9/22/95		Date 9/22/95	

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WBS 1.2.2.1**

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Operate 200 Area TEDF Within SWD Permit Enforcement Limits and Early Warning Values			Date: 08/25/95
Assigned To: 200 Area LEF Manager			CIN:
Program WBS Designator: 1.2.2.1.2			Due Date: 12/31/95 03/31/96 06/30/96 09/30/96
Control Number: LEP-96-016, LEP-97-012, LEP-98-012, LEP-99-008, LEP-00-008, LEP-01-007			Rev:
MILESTONE TYPE: ☐ DOE-HQ ☒ DOE-RL ☐ CONTRACTOR	DIVISION: ☐ State ☐ Federal ☒ DOE ☐ RCRA ☐ TPA Number	DELIVERABLE: ☒ Report ☐ Letter ☐ Drawings ☐ Other (specify)	ADDRESS TO: ☐ DOE-HQ ☒ DOE-RL ☐ Other (specify)
Milestone Description: Operate the 200 Area TEDF with no State Waste Discharge Permit violations and fewer than 3 exceedances of early warning values per quarter.			
Description of what constitutes completion of this milestone: Completion of a 3 month period with no permit violations and fewer than 3 exceedances of early warning values.			
Cost Account Manager: M. W. Peres <i>M. W. Peres</i>		Program/Project Manager: A. J. DiLiberto <i>A. J. DiLiberto</i>	
Program Element Manager:		DOE Monitor: E. M. Bowers <i>E. M. Bowers</i>	
Date: 9/22/95		Date: 9/22/95	
Date:		Date: 9-22-95	

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WBS 1.2.2.1**

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Prepare and Submit 300 Area TEFB NPDES Permit Modification			Date: 08/25/95
Assigned To: 300 Area TEFB Manager			CIN:
Program WBS Designator: 1.2.2.1.3			Due Date: 08/15/96
Control Number: LEP-96-017			Rev:
MILESTONE TYPE: ☐ DOE-HQ ☒ DOE-RL ☐ CONTRACTOR	DIVISION: ☐ State ☐ Federal ☒ DOE ☐ RCRA ☐ TPA Number	DELIVERABLE: ☐ Report ☐ Letter ☐ Drawings ☒ Other (specify) Permit Application	ADDRESS TO: ☐ DOE-HQ ☒ DOE-RL ☐ Other (specify)
Milestone Description: Prepare permit modification on the National Pollutant Discharge Elimination System (NPDES) for the 300 Area TEFB, and submit the permit revision package to RL for submission to the EPA for issuance.			
Description of what constitutes completion of this milestone: Completed application for permit modification submitted to RL for review, approval, and submission to EPA.			
Cost Account Manager: <i>L. W. Roberts</i> for LWK		Date: 9/25/95	
Program/Project Manager <i>A. G. DiLiberto</i>		Date: 9/22/95	
Program Element Manager		Date:	
DOE Monitor <i>E. M. Bowers</i>		Date: 9/22/95	

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Complete Tank Integrity Assessment for 340 Facility Vault Tanks			Date: 08/25/95
Assigned To: 300 Area LEF Manager			CIN:
Program WBS Designator: 1.2.2.1.3			Due Date: 09/15/96
Control Number: LEP-96-018			Rev:
MILESTONE TYPE: ☐ DOE-HQ ☒ DOE-RL ☐ CONTRACTOR	DIVISION: ☐ State ☐ Federal ☒ DOE ☐ RCRA ☐ TPA Number	DELIVERABLE: ☒ Report ☐ Letter ☐ Drawings ☐ Other (specify)	ADDRESS TO: ☐ DOE-HQ ☒ DOE-RL ☐ Other (specify)
Milestone Description: Complete tank integrity assessment for 340 Facility Vault Tanks and submit all required reports to RL for submission to Ecology to meet TPA Milestone M-32-00.			
Description of what constitutes completion of this milestone: Completed assessment reports suitable for RL submission to Ecology.			
Cost Account Manager: <i>L. W. Roberts</i>	Date: 9/25/95	Program/Project Manager: <i>A. J. DiLiberto</i>	Date: 9/22/95
Program Element Manager	Date	DOE Monitor: <i>E. M. Bowers</i>	Date: 9-22-95

**LIQUID EFFLUENTS
WBS 1.2.2.1**

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Prepare 340 Waste Handling Facility Shutdown Plan		Date: 08/25/95	
Assigned To: 300 Area LEF Manager		CIN:	
Program WBS Designator: 1.2.2.1.3		Due Date: 09/15/96	
Control Number: LEP-96-019		Rev:	
MILESTONE TYPE: ☐ DOE-HQ ☒ DOE-RL ☐ CONTRACTOR	DIVISION: ☐ State ☐ Federal ☒ DOE ☐ RCRA ☐ TPA Number	DELIVERABLE: ☒ Report ☐ Letter ☐ Drawings ☐ Other (specify)	ADDRESS TO: ☐ DOE-HQ ☒ DOE-RL ☐ Other (specify)
Milestone Description: Prepare a shutdown plan for the 340 Waste Handling Facility which addresses discontinuing acceptance of waste, maintaining of essential records, disposal or sales of essential material and the transition of the facility to Transition Programs.			
Description of what constitutes completion of this milestone: Completed plan submitted to RL on or before the due date.			
Cost Account Manager: <i>[Signature]</i> L. W. Roberts	Date 9/25/95	Program/Project Manager <i>[Signature]</i> A. J. DiLiberto	Date 9/22/95
Program Element Manager	Date	DOE Monitor <i>[Signature]</i> E. M. Bowers	Date 9-22-95

**LIQUID EFFLUENTS
WBS 1.2.2.1**

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Volatile Organic Carbon Emissions Test Plan			Date: 08/31/95
Assigned To: Manager 200 Area LEF			CIN:
Program WBS Designator: 1.2.2.1.2			Due Date: 10/30/95 to RL 11/30/95 To WDOE
Control Number: LEP-96-020			Rev: 0
MILESTONE TYPE: ☐ DOE-HQ ☒ DOE-RL ☐ CONTRACTOR	DIVISION: ☒ State ☐ Federal ☐ DOE ☐ RCRA ☐ TPA Number	DELIVERABLE: ☐ Report ☐ Letter ☐ Drawings ☒ Other (specify), Test Plan	ADDRESS TO: ☐ DOE-HQ ☐ DOE-RL ☒ Other (specify) WDOE
Milestone Description: The Department of Ecology approval of the ETF Notice of Construction (NOC) submitted in accordance with WAC 173-400 contains the following condition: Within 180 days of start-up of the facility, Energy shall conduct performance tests for VOC at the locations of G6. Testing must be performed by an independent testing firm, and results must be reported to the department within 60 days after the test completion. Energy must submit a test plan for the department approval at least 45 days before the testing. Testing shall occur only after the department approves the plan. Energy shall notify the department at least 7 days before each test date.			
Description of what constitutes completion of this milestone: The test plan will be issued as a WHC and DOE approved Supporting Document.			
Basis for schedule: The test plan will be submitted by the assumed ETF startup date of 11/30/95.			
Cost Account Manager: M. W. Peres <i>M. W. Peres</i>		Program/Project Manager <i>A. J. DiLiberto</i> A. J. DiLiberto	
Date 9/22/95		Date 9/22/95	
Program Element Manager Date		DOE Monitor <i>E. M. Bowers</i> E. M. Bowers	
		Date 9/22/95	

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Volatile Organic Carbon Emission Test Report			Date: 08/31/95
Assigned To: Manager 200 Area LEF			CIN:
Program WBS Designator: 1.2.2.1.2			Due Date: 03/01/96 to RL 04/01/96 to WDOE
Control Number: LEP-96-021			Rev: 0 <i>MUT</i>
MILESTONE TYPE: ☐ DOE-HQ ☒ DOE-RL ☐ CONTRACTOR	DIVISION: ☒ State ☐ Federal ☐ DOE ☐ RCRA ☐ TPA Number	DELIVERABLE: ☒ Report ☐ Letter ☐ Drawings ☐ Other (specify)	ADDRESS TO: ☐ DOE-HQ ☐ DOE-RL ☒ Other (specify) WDOE
Milestone Description: The Department of Ecology approval of the ETF Notice of Construction (NOC) submitted in accordance with WAC 173-400 contains the following condition: Within 180 days of start-up of the facility, Energy shall conduct performance tests for VOC at the locations of G6. Based on the initial results of performance tests, the department may require Energy to conduct a periodic performance test for these pollutants. Testing must be performed by an independent testing firm, and results must be reported to the department within 60 days after the test completion. Energy submit a test plan for the department approval at least 45 days before the testing. Testing shall occur only after the department approves the plan. Energy shall notify the department at least 7 days before each test date.			
Description of what constitutes completion of this milestone: The test results will be submitted to Ecology as a WHC Supporting Document.			
Basis for schedule: Test plan will be submitted by 11/30/95. Ecology 45 day review (1/14/96) of test plan. Conduct test and report data within 60 days of the end of Ecology review period (4/1/96).			
Cost Account Manager: <i>M. W. Peres</i>		Program/Project Manager: <i>A. J. DiLiberto</i>	
M. W. Peres <i>9/22/95</i>		A. J. DiLiberto <i>9/22/95</i>	
Program Element Manager:		DOE Monitor:	
Date:		Date:	
<i>E. M. Bowers</i>		<i>E. M. Bowers</i>	
<i>9-22-95</i>		<i>9-22-95</i>	

**LIQUID EFFLUENTS
WBS 1.2.2.1**

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: 200 Area ETF Groundwater Monitoring Plan (draft)		Date: 08/31/95	
Assigned To: 200 Area LEF Manager		CIN:	
Program WBS Designator: 1.2.2.1.2		Due Date: 12/30/95 to RL 01/30/96 to WDOE	
Control Number: LEP-96-022		Rev: 0	
MILESTONE TYPE: ☐ DOE-HQ ☒ DOE-RL ☐ CONTRACTOR	DIVISION: ☒ State ☐ Federal ☐ DOE ☐ RCRA ☐ TPA Number	DELIVERABLE: ☐ Report ☐ Letter ☐ Drawings ☒ Other (specify) GW Monitoring Plan	ADDRESS TO: ☐ DOE-HQ ☐ DOE-RL ☒ Other (specify) WDOE
<p>Milestone Description: The Final State Waste Discharge Permit for the 200 Area ETF requires the submission of a draft groundwater monitoring plan to Ecology within 60 days of ETF start-up. This monitoring plan will include:</p> <ul style="list-style-type: none"> - Plans for tracking the tritium plume, - Plans for updating and maintaining the computer model for predicting the travel time of the tritium plume, - The location and construction of groundwater monitoring wells, - A commitment to submit a list of applicable contingency measures regarding the exceedance of the surface water standard for tritium and, - a pre-operational groundwater monitoring report listing analytical results from wells 699-48-77A, 699-48-77C and 699-48-77D. 			
<p>Description of what constitutes completion of this milestone: The groundwater Monitoring plan will be issued as a Westinghouse Supporting Document.</p>			
<p>Schedule basis: The ETF is assumed to begin operations on 11/30/95, the draft report is due to Ecology 60 days after start-up (01/30/96).</p>			
Cost Account Manager:	Date	Program/Project Manager	Date
M. W. Peres	9/22/95	A. J. DiLiberto	9/22/95
Program Element Manager	Date	DOE Monitor	Date
		E. M. Bowers	9/22/95

LIQUID EFFLUENTS
WBS 1.2.2.1

FY. 1996 Program Plan

WHC-SP-1097 Rev 1

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: 200 Area ETF Groundwater Monitoring Plan (final)		Date: 08/31/95	
Assigned To: 200 Area LEF Manager		CIN:	
Program WBS Designator: 1.2.2.1.2		Due Date: open 3/30/96	
Control Number: LEP-96-023		Rev: 0	
MILESTONE TYPE: ☐ DOE-HQ ☒ DOE-RL ☐ CONTRACTOR	DIVISION: ☒ State ☐ Federal ☐ DOE ☐ RCRA ☐ TPA Number	DELIVERABLE: ☐ Report ☐ Letter ☐ Drawings ☒ Other (specify) GW Monitoring Plan	ADDRESS TO: ☐ DOE-HQ ☐ DOE-RL ☒ Other (specify) WDOE
Milestone Description: The final State Waste Discharge Permit for the 200 Area ETF requires that a final groundwater monitoring plan be submitted within 30 days of receiving Ecology's comments on the draft Groundwater Monitoring Plan.			
Description of what constitutes completion of this milestone: An Engineering Change notice will be prepared which incorporates the Ecology comments into the draft groundwater monitoring plan.			
Basis for schedule: The ETF is assumed to begin operations on 11/30/95. Submit draft groundwater monitoring plan within 60 days (1/30/96). Assumed 30 day Ecology comment period (2/28/96). Thirty day comment incorporation (allowed by permit) to 3/30/96.			
Cost Account Manager: M. W. Peres <i>M. W. Peres</i>		Program/Project Manager <i>A. B. DiLiberto</i>	
Date	Date	Date	Date
9/22/95	9/22/95	9/22/95	9/22/95
Program Element Manager E. M. Bowers <i>E. M. Bowers</i>		DOE Monitor <i>E. M. Bowers</i>	
Date	Date	Date	Date
9-22-95	9-22-95	9-22-95	9-22-95

**LIQUID EFFLUENTS
WBS 1.2.2.1**

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Liquid Effluent Retention Facility (LERF) Sampling Plan (final)			Date: 08/31/95
Assigned To: 200 Area LEF Manager			CIN:
Program WBS Designator: 1.2.2.1.2			Due Date: 10/30/95
Control Number: LEP-96-024			Rev: 0
MILESTONE TYPE: ☐ DOE-HQ ☒ DOE-RL ☐ CONTRACTOR	DIVISION: ☒ State ☐ Federal ☐ DOE ☐ RCRA ☐ TPA Number	DELIVERABLE: ☐ Report ☐ Letter ☐ Drawings ☒ Other (specify) Sampling Plan	ADDRESS TO: ☐ DOE-HQ ☐ DOE-RL ☒ Other (specify) WDOE
Milestone Description: The State Waste Discharge Permit for the 200 Area requires that within 30 days of receipt of written resolution of comments from Ecology on the draft LERF Sampling Plan, submit the final LERF Sampling Plan to Ecology.			
Description of what constitutes completion of this milestone: An ECN will be prepared to incorporate the Ecology comments into the draft LERF Sampling Plan.			
Basis for schedule: Draft LERF Sampling Plan required within 60 days of final permit (8/30/95). Assumed 30 day Ecology comment period (9/30/95). Permit allowed 30 day comment incorporation period (10/30/95).			
Cost Account Manager: M. W. Peres <i>M. W. Peres</i>		Program/Project Manager A. J. DiLiberto <i>A. J. DiLiberto</i>	
Date: 9/22/95		Date: 9/22/95	
Program Element Manager E. M. Bowers <i>E. M. Bowers</i>		DOE Monitor E. M. Bowers <i>E. M. Bowers</i>	
Date: 9-22-95		Date: 9-22-95	

**LIQUID EFFLUENTS
WBS 1.2.2.1**

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: 200 Area ETF Operations and Maintenance Matrix			Date: 08/31/95
Assigned To: 200 Area LEF Manager			CIN:
Program WBS Designator: 1.2.2.1.2			Due Date: 10/30/95
Control Number: LET-96-025			Rev: 0
MILESTONE TYPE: ☐ DOE-HQ ☒ DOE-RL ☐ CONTRACTOR	DIVISION: ☒ State ☐ Federal ☐ DOE ☐ RCRA ☐ TPA Number	DELIVERABLE: ☐ Report ☒ Letter ☐ Drawings ☒ Other (specify) Matrix	ADDRESS TO: ☐ DOE-HQ ☐ DOE-RL ☒ Other (specify) WDOE
Milestone Description: The State Waste Discharge Permit for the 200 Area ETF requires that DOE submit to Ecology 30 days prior to ETF start-up a matrix listing the ETF's Operations and Maintenance Manuals. This matrix will also address the Solid Waste Control Plan and the Spill Control Plan.			
Description of what constitutes completion of this milestone: The matrix will be transmitted to Ecology via a DOE letter.			
Basis for schedule: Submittal required 30 days prior to ETF assumed startup of 11/30/95.			
Cost Account Manager: M. W. Peres <i>M. W. Peres</i>		Program/Project Manager A. G. DiLiberto <i>A. G. DiLiberto</i>	
Program Element Manager Date: 9/22/95		DOE Monitor E. M. Bowers <i>E. M. Bowers</i> Date: 9.22-95	

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FY 1996 Program Plan

WHC-SP-1097 Rev 1

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Annual Review/Update of 200 Area ETF Operations & Maintenance Manuals			Date: 08/31/95
Assigned To: 200 Area LEF Manager			CIN:
Program WBS Designator: 1.2.2.1.2			Due Date: 09/30/96 to RL 10/30/96 to WDOE
Control Number: LEP-96-026			Rev: 0
MILESTONE TYPE: ☐ DOE-HQ ☒ DOE-RL ☐ CONTRACTOR	DIVISION: ☒ State ☐ Federal ☐ DOE ☐ RCRA ☐ TPA Number	DELIVERABLE: ☐ Report ☒ Letter ☐ Drawings ☐ Other (specify)	ADDRESS TO: ☐ DOE-HQ ☐ DOE-RL ☒ Other (specify) WDOE
Milestone Description: The State Waste Discharge Permit for the 200 Area ETF requires that annually DOE submit to Ecology a letter which confirms that an annual review and update of all ETF Operations and Maintenance manuals has been completed.			
Description of what constitutes completion of this milestone: Transmission of a DOE letter to Ecology indicating the completion of the annual review.			
Basis for schedule: The O&M matrix will be submitted to Ecology on 10/30/95. Annual review will therefore be due on 10/30/96.			
Cost Account Manager: M. W. Peres <i>MW Peres</i>		Program/Project Manager A. E. DiLiberto <i>A. E. DiLiberto</i>	
Date: 9/22/95		Date: 9/22/95	
Program Element Manager		DOE Monitor E. M. Bowers <i>E. M. Bowers</i>	
Date:		Date: 9-22-95	

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WBS 1.2.2.1**

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: LERF Sampling Report			Date: 08/31/95
Assigned To: 200 Area LEF Manager			CIN:
Program WBS Designator: 1.2.2.1.2			Due Date: 10/08/95 to RL 11/08/95 to WDOE
Control Number: LEP-96-027			Rev: 0
MILESTONE TYPE: ☐ DOE-HQ ☒ DOE-RL ☐ CONTRACTOR	DIVISION: ☒ State ☐ Federal ☐ DOE ☐ RCRA ☐ TPA Number	DELIVERABLE: ☒ Report ☐ Letter ☐ Drawings ☐ Other (specify)	ADDRESS TO: ☐ DOE-HQ ☐ DOE-RL ☒ Other (specify) WDOE
Milestone Description: The State Waste Discharge Permit for the 200 Area ETF requires the submission of the LERF Sampling Reports to Ecology within 3 months following the sampling of LERF per the Ecology approved LERF Sampling Plan.			
Description of what constitutes completion of this milestone: A Letter will be used to transmit the sampling results from the DOE to Ecology.			
Basis for Schedule: LERF was sampled in August 1995. The 3 month period allowed by the permit will end 11/30/95.			
Cost Account Manager: M. W. Peres <i>M. W. Peres</i>		Program/Project Manager A. J. DiLiberto <i>A. J. DiLiberto</i>	
Date: 9/22/95		Date: 9/22/95	
Program Element Manager		DOE Monitor E. M. Bowers <i>E. M. Bowers</i>	
Date:		Date: 9/22/95	

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WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: 200 Area ETF Effluent and Groundwater Discharge Monitoring Reports (DMR) (Quarterly)			Date: 08/31/95
Assigned To: 200 Area LEF Manager			CIN:
Program WBS Designator: 1.2.2.1.2			Due Date: 02/15/96-01 to RL 05/16/96-01 to RL 08/15/96-01 to RL 11/15/96-01 to RL +14 days to WDOE
Control Number: LEP-96-028, LEP-97-013, LEP-98-013, LEP-99-009, LEP-00-009, LEP-01-008			Rev: 0
MILESTONE TYPE: ☐ DOE-HQ ☒ DOE-RL ☐ CONTRACTOR	DIVISION: ☒ State ☐ Federal ☐ DOE ☐ RCRA ☐ TPA Number	DELIVERABLE: ☐ Report ☒ Letter ☐ Drawings ☒ Other (specify) DMR Forms	ADDRESS TO: ☐ DOE-HQ ☐ DOE-RL ☒ Other (specify) WDOE
Milestone Description: The State Waste Discharge Permit for the 200 Area ETF requires DOE to report to Ecology on a quarterly basis a Discharge Monitoring Report (DMR) which summarizes the sample results for the effluent and groundwater monitoring wells 699-48-77A, 699-48-77C, and 699-48-77D.			
Description of what constitutes completion of this milestone: Transmittal of the completed DMR forms to Ecology by the DOE.			
Basis for schedule: DMR reports are due to Ecology 60 days following the calendar quarter.			
Cost Account Manager:		Program/Project Manager	
M. W. Peres	Date: 9/22/95	A. J. DiLiberto	Date: 9/22/95
Program Element Manager		DOE Monitor	
E. A. Bowers		Date: 9-22-95	

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WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Submit 200 Area TEDF Effluent Variability Study Results			Date: 08/31/95
Assigned To: 200 Area LEF Manager			CIN:
Program WBS Designator: 1.2.2.1.2			Due Date: 06/17/96 to RL 07/17/96 to WDOE
Control Number: LEP-96-029			Rev: 0
MILESTONE TYPE: ☐ DOE-HQ ☒ DOE-RL ☐ CONTRACTOR	DIVISION: ☒ State ☐ Federal ☐ DOE ☐ RCRA ☐ TPA Number	DELIVERABLE: ☒ Report ☐ Letter ☐ Drawings ☒ Other (specify) Study Results	ADDRESS TO: ☐ DOE-HQ ☐ DOE-RL ☒ Other (specify) WDOE
Milestone Description: The State Waste Discharge Permit for the 200 Area Treated Effluent Disposal Facility (TEDF) required that an Effluent Variability Study be completed during the first year of operations. The Variability Study Plan was submitted to Ecology and approved in FY-95. The results of this study are due one year following the Ecology approval.			
Description of what constitutes completion of this milestone: The results of this study will be transmitted to Ecology in a Westinghouse Supporting Document.			
Basis for Schedule: Ecology approval of the Effluent Variability Study was in July 1995. Permit requires the final report 1 year after approval (July 1996).			
Cost Account Manager: M. W. Peres <i>M. W. Peres</i> 9/22/95		Program/Project Manager A. J. DiLiberto <i>A. J. DiLiberto</i> 9/22/95	
Program Element Manager Date		DOE Monitor E. M. Bowers <i>E. M. Bowers</i> 9-22-95	

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WBS 1.2.2.1**

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WHC-SP-1097 Rev 1

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Submit Report of Annual Review/Update of 200 Area TEDF Operations & Maintenance Manuals			Date: 08/31/96
Assigned To: 200 Area LEF Manager			CIN:
Program WBS Designator: 1.2.2.1.2			Due Date: 04/17/96 to RL 05/17/96 to WDOE
Control Number: LEP-96-031, LEP-97-009, LEP-98-010, LEP-99-005, LEP-00-006, LEP-005			Rev: 0
MILESTONE TYPE: ☐ DOE-HQ ☒ DOE-RL ☐ CONTRACTOR	DIVISION: ☒ State ☐ Federal ☐ DOE ☐ RCRA ☐ TPA Number	DELIVERABLE: ☐ Report ☒ Letter ☐ Drawings ☐ Other (specify)	ADDRESS TO: ☐ DOE-HQ ☐ DOE-RL ☒ Other (specify) WDOE
Milestone Description: The State Waste Discharge Permit for the 200 Area Treated Effluent Disposal Facility requires that annually DOE submit to Ecology a letter which confirms that an annual review and update of all ETF Operations and Maintenance manuals has been completed. This includes the facility Solid Waste and Spill Control plans.			
Description of what constitutes completion of this milestone: Transmission of a DOE letter to Ecology indicating the completion of the annual review.			
Basis for schedule: The TEDF O&M matrix was submitted to Ecology in May 1995. The annual review will therefore be due on 5/30/96.			
Cost Account Manager: M. W. Peres	Date <i>M. W. Peres</i> 9/22/95	Program/Project Manager <i>A. J. DiLiberto</i>	Date 9/22/95
Program Element Manager	Date	DOE Monitor <i>E. M. Bowers</i>	Date 9-22-95

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WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Report ETF Verification Tank Test Results			Date: 08/31/95
Assigned To: 200 Area LEF Manager			CIN:
Program WBS Designator: 1.2.2.1.2			Due Date: 02/29/96 to RL 03/29/96 to EPA
Control Number: LEP-96-032			Rev: 0
MILESTONE TYPE: ☐ DOE-HQ ☒ DOE-RL ☐ CONTRACTOR	DIVISION: ☐ State ☒ Federal ☐ DOE ☐ RCRA ☐ TPA Number	DELIVERABLE: ☒ Report ☐ Letter ☐ Drawings ☒ Other (specify) Test Results	ADDRESS TO: ☐ DOE-HQ ☐ DOE-RL ☒ Other (specify) EPA
Milestone Description: The "Delisting Petition" approval for the 200 Area Effluent Treatment Facility requires that DOE report operational and analytical test data obtained during the filling of the first three verification tanks, as part of initial verification testing to the Chief of the Waste Identification Branch (EPA) no later than ninety days after the first verification tank is filled.			
Description of what constitutes completion of this milestone: Submit to EPA a WHC Supporting Document that contains the operational data and the test results from the ETF verification tanks.			
Basis for schedule: The ETF is assumed to startup on 11/30/95. The first three verification tanks are assumed to be filled by 12/30/95. The delisting approval reporting period is 90 days, making the report due on 3/30/96. <div style="text-align: right;"><i>29 inf</i></div>			
Cost Account Manager: M. W. Peres <i>MW Peres</i>		Program/Project Manager A. J. DiLiberto <i>AJ DiLiberto</i>	
Date: 9/22/95		Date: 9/22/95	
Program Element Manager		DOE Monitor: E. M. Bowers <i>EM Bowers</i>	
Date:		Date: 9-22-95	

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WBS 1.2.2.1**

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Provide EPA-HQ Two Week Notice of ETF Startup			Date: 08/31/95
Assigned To: 200 Area LEF Manager			CIN:
Program WBS Designator: 1.2.2.1.2			Due Date: 11/16/95
Control Number: LEP-96-033			Rev: 0
MILESTONE TYPE: ☐ DOE-HQ ☒ DOE-RL ☐ CONTRACTOR	DIVISION: ☐ State ☒ Federal ☐ DOE ☐ RCRA ☐ TPA Number	DELIVERABLE: ☐ Report ☒ Letter ☐ Drawings ☐ Other (specify)	ADDRESS TO: ☐ DOE-HQ ☐ DOE-RL ☒ Other (specify) EPA-HQ
Milestone Description: The delisting approval for the 200 Area Effluent Treatment Facility requires that the DOE notify the Chief of Waste Identification Branch (EPA) in writing, at least two weeks prior to startup, when the Effluent Treatment Process will be on-line and waste treatment will begin.			
Description of what constitutes completion of this milestone: Submit to EPA-HQ a DOE letter containing notification of when ETF will Startup.			
Basis for Schedule: Two weeks before the assumed startup of ETF on November 30, 1995.			
Cost Account Manager: M. W. Peres	Date 9/22/95	Program/Project Manager: A. J. DiLiberto	Date 9/22/95
Program Element Manager	Date	DOE Monitor: E. M. Bowers	Date 9-22-95

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WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Complete WAC-216 Permit Application for Category 3 Miscellaneous Streams			Date: 6/12/95
Assigned To: Liquid Effluents Engineering (LEE)			CIN:
Program WBS Designator: 1A2413040A			Due Date: 8/30/97 to RL 9/30/97 to WDOE
Control Number: LEP-97-004			Rev:
MILESTONE TYPE: ☐ DOE-HQ ☒ DOE-RL ☐ CONTRACTOR	DIVISION: ☒ State ☐ Federal ☐ DOE ☐ RCRA ☐ TPA Number	DELIVERABLE: ☐ Report ☐ Letter ☐ Drawings ☒ Other (specify) Permit Application	ADDRESS TO: ☐ DOE-HQ ☐ DOE-RL ☒ Other (specify) Washington State Department of Ecology
Milestone Description: Submit a WAC-216 Categorical Permit application for surface water discharges from the coal ramp washdown process, and vehicle wash cleaning and safety shower discharges originating from potable water.			
<small>(For Category description, see the "Plan and Schedule for Disposition and Regulatory Compliance for Miscellaneous Streams, DOE/RL-93-94, Rev 1)</small>			
Description of what constitutes completion of this milestone: Confirmation that Ecology received the permit application.			
Cost Account Manager: K. J. Lueck <i>K. J. Lueck</i>		Program/Project Manager <i>A. J. DiLiberto</i>	
Program Element Manager M. W. Peres <i>M. W. Peres</i>		DOE Monitor <i>E. M. Bowers</i>	
Date <i>9/25/95</i>		Date <i>9/22/95</i>	
Date <i>9/22/95</i>		Date <i>9-22-95</i>	

**LIQUID EFFLUENTS
WBS 1.2.2.1**

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Submit ETF/LERF/242-A Evaporator Part B Permit Application			Date: 08/31/95
Assigned To: 200 Area LEF Manager			CIN:
Program WBS Designator: 1.2.2.1.2			Due Date: 01/29/97 to RL 02/28/97 to WDOE
Control Number: LEP-97-010			Rev: 0
MILESTONE TYPE: ☐ DOE-HQ ☒ DOE-RL ☐ CONTRACTOR	DIVISION: ☒ State ☐ Federal ☐ DOE ☐ RCRA ☐ TPA Number	DELIVERABLE: ☐ Report ☐ Letter ☐ Drawings ☒ Other (specify) Part B Permit Application	ADDRESS TO: ☐ DOE-HQ ☐ DOE-RL ☒ Other (specify) WDOE
Milestone Description: Revise and submit the combined RCRA ETF/LERF/242-A Evaporator Part B permit application to Ecology for incorporation into the Hanford Facility RCRA Permit.			
Description of what constitutes completion of this milestone: Submit Combined RCRA ETF/LERF/242-A Evaporator Part B to Ecology.			
Basis for schedule: Draft Schedule for the Hanford Facility RCRA Permit, Modification A, schedule for incorporating TSD Units.			
Cost Account Manager: M. W. Peres <i>MW Peres</i>		Program/Project Manager A. J. DiLiberto <i>AJ DiLiberto</i>	
Date: 9/22/95		Date: 9/22/95	
Program Element Manager E. M. Bowers <i>E. M. Bowers</i>		DOE Monitor E. M. Bowers <i>E. M. Bowers</i>	
Date: 9-22-95		Date: 9-22-95	

**LIQUID EFFLUENTS
WBS 1.2.2.1**

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Annual Report on Facility Activities			Date: 08/31/95
Assigned To: 200 Area LEF Manager			CIN:
Program WBS Designator: 1.2.2.1.2			Due Date: 02/01/96 to RL 03/01/96 to WDOE
Control Number: LEP-96-034			Rev: 0
MILESTONE TYPE: ☐ DOE-HQ ☒ DOE-RL ☐ CONTRACTOR	DIVISION: ☒ State ☐ Federal ☐ DOE ☐ RCRA ☐ TPA Number	DELIVERABLE: ☒ Report ☐ Letter ☐ Drawings ☐ Other (specify)	ADDRESS TO: ☐ DOE-HQ ☐ DOE-RL ☒ Other (specify) WDOE
Milestone Description: In accordance with WAC 173-303, Section 390(2) submit a single copy of the annual report concerning facility activities during the previous year on TSD Facility Annual Waste Report-Form 5 to Ecology by March 1 of each year.			
Description of what constitutes completion of this milestone: Completed annual facility activities report to Ecology using Form 5.			
Cost Account Manager: M. W. Peres <i>[Signature]</i>		Program/Project Manager A. J. Biliberto <i>[Signature]</i>	
Date 9/22/95		Date 9/22/95	
Program Element Manager E. M. Bowers <i>[Signature]</i>		DOE Monitor E. M. Bowers <i>[Signature]</i>	
Date 9-22-95		Date 9-22-95	

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WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Complete WAC-216 Permit Application for Category 4 Miscellaneous Streams			Date: 6/12/95
Assigned To: Liquid Effluents Engineering (LEE)			CIN:
Program WBS Designator: 1A2413040A			Due Date: 8/30/98 to RL 9/30/98 to WDOE
Control Number: LEP-98-005			Rev:
MILESTONE TYPE: ☐ DOE-HQ ☒ DOE-RL ☐ CONTRACTOR	DIVISION: ☒ State ☐ Federal ☐ DOE ☐ RCRA ☐ TPA Number	DELIVERABLE: ☐ Report ☐ Letter ☐ Drawings ☒ Other (specify) Permit Application	ADDRESS TO: ☐ DOE-HQ ☐ DOE-RL ☒ Other (specify) Washington State Department of Ecology
Milestone Description: Submit a WAC-216 Categorical Permit application for storm water discharges.			
<small>(For Category description, see the "Plan and Schedule for Disposition and Regulatory Compliance for Miscellaneous Streams, DOE/RL-93-94, Rev 1)</small>			
Description of what constitutes completion of this milestone: Confirmation that Ecology received the permit application.			
Cost Account Manager: <i>K. J. Lueck</i> K. J. Lueck	Date 9/25/95	Program/Project Manager <i>A. J. DiLiberto</i> A. J. DiLiberto	Date 9/22/95
Program Element Manager <i>M. P.</i>	Date 9/22/95	DOE Monitor <i>E. M. Bowers</i> E. M. Bowers	Date 9-22-95

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WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Submit Re-application for State Waste Discharge Permit for 200 Area TEDF			Date: 07/19/95
Assigned To: Manager, 200 Area LEF			CIN:
Program WBS Designator: 1.2.2.1.2			Due Date: 01/18/00 to RL 02/18/00 to WDOE
Control Number: LEP-00-003			Rev:
MILESTONE TYPE: ☐ DOE-HQ ☒ DOE-RL ☐ CONTRACTOR	DIVISION: ☒ State ☐ Federal ☐ DOE ☐ RCRA ☐ TPA Number	DELIVERABLE: ☐ Report ☐ Letter ☐ Drawings ☐ Other (specify) ☒ Permit Application	ADDRESS TO: ☐ DOE-HQ ☐ DOE-RL ☐ Other (specify) ☒ WDOE
Milestone Description: Complete and submit an application for permit renewal at least 60 days prior to the specified expiration date for the permit.			
Description of what constitutes completion of this milestone: Completed application for renewal of permit.			
Cost Account Manager: M. W. Peres <i>M. W. Peres</i>		Program/Project Manager A. J. DiLiberto <i>A. J. DiLiberto</i>	
Program Element Manager .		DOE Monitor E. M. Bowers <i>E. M. Bowers</i>	
Date	9/22/95	Date	9/22/95
Date	9/22/95	Date	9/22/95

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WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

3.3 COST BASELINE

3.3.1 Cost Baseline Summary By Year

Cost Baseline Summary - By ADS - By Cost Account - By Year (\$ in 000s) TARGET																
RL WBS	WBS TITLE	FUND TYPE	1996		1997 Target		1998 Target		1999 Target		2000 Target		2001 Target		2002 Target	
			\$000	FTEs	\$000	FTEs	\$000	FTEs	\$000	FTEs	\$000	FTEs	\$000	FTEs	\$000	FTEs
ADS 2300-0 LIQUID EFFLUENTS																
1.2.2.1.1	Program Office		4,843	16	2,533	15	2,593	15	2,655	15	2,723	15	2,788	15	2,788	15
1.2.2.1.1.0001	Program Management	OP	2,468	16.1	2,033	15.0	2,093	15.0	2,155	15.0	2,223	15.0	2,288	15.0	2,288	15.0
1.2.2.1.1.0002	Program Fees and Misc Charges	OP	2,375	0	500	0	500	0	500	0	500	0	500	0	500	0
	Sub Total	OP	4,843	16	2,533	15	2,593	15	2,655	15	2,723	15	2,788	15	2,788	15
1.2.2.1.2	200 Area LEF Operations		23,170	121	16,134	113	16,850	112	16,911	111	16,574	111	16,260	110	16,260	110
1.2.2.1.2.0001	200 Area TEDF SMECO	OP	4,391	29.1	4,500	29.0	4,616	29.0	4,790	29.0	4,943	29.0	5,087	28.9	5,087	28.9
1.2.2.1.2.0002	200 Area ETF SMECO	OP	7,709	46.0	7,605	44.8	7,800	44.8	8,093	44.8	8,356	44.8	8,597	44.6	8,597	44.6
1.2.2.1.2.0003	200 Area LERF SMECO	OP	956	6.8	963	6.6	986	6.6	1,024	6.6	1,056	6.6	1,087	6.6	1,087	6.6
1.2.2.1.2.0004	200 Area ETF Process Operations	OP	6,296	35.6	2,548	28.9	3,090	28.9	2,819	28.9	2,030	28.9	1,296	28.9	1,296	28.9
1.2.2.1.2.0005	200 Area ETF Enhancements	OP	1,218	3.6	468	3.3	308	3.1	135	1.3	139	1.3	143	1.3	143	1.3
1.2.2.1.2	200 Area LEF Capital Equipment	CE	100	0	50	0	50	0	50	0	50	0	50	0	50	0
1.2.1.1.2	Upgrade Projects	GPP	2,500	0												
	Sub Total	OP	20,570	121	16,084	113	16,800	112	16,861	111	16,524	111	16,210	110	16,210	110

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FY 1996 Program Plan

WHC-SP-1097 Rev 1

Cost Baseline Summary - By ADS - By Cost Account - By Year (\$ in 000s) TARGET																
RL WBS	WBS TITLE	FUND TYPE	1996		1997 Target		1998 Target		1999 Target		2000 Target		2001 Target		2002 Target	
			\$000	FTEs	\$000	FTEs	\$000	FTEs	\$000	FTEs	\$000	FTEs	\$000	FTEs	\$000	FTEs
	Sub Total	CE	100	0	50	0	50	0	50	0	50	0	50	0	50	0
	Sub Total	GPP	2,500	0	0	0	0	0	0	0	0	0	0	0	0	0
1.2.2.1.3	300 Area LEF Operations		9,296	56	7,848	51	8,131	53	8,434	53	8,703	53	8,952	53	8,952	53
1.2.2.1.3.0001	300 Area TEDF SMECO	OP	4,248	25.2	4,121	25.6	4,227	25.6	4,385	25.6	4,527	25.6	4,658	25.5	4,658	25.5
1.2.2.1.3.0002	340 Facility SMECO	OP	3,613	25.8	3,677	25.8	3,772	25.8	3,914	25.8	4,038	25.8	4,154	25.7	4,154	25.7
1.2.2.1.3.0004	300 Area TEDF Enhancements	OP	156	1.5	0		82	1.6	85	1.6	88	1.6	90	1.6	90	1.6
1.2.2.1.3.0005	340 Facility Enhancements	OP	1,179	3.8												
1.2.2.1.3	300 Area LEF Capital Equipment	CE	100	0	50	0	50	0	50	0	50	0	50	0	50	0
	Sub Total	OP	9,196	56	7,798	51	8,081	53	8,384	53	8,653	53	8,902	53	8,902	53
	Sub Total	CE	100	0	50	0	50	0	50	0	50	0	50	0	50	0
1.2.2.1.4	Liquid Effluents Engineering		472	2	359	2	417	2	0	0	0	0	0	0	0	0
1.2.2.1.4.0004	Miscellaneous Streams	OP	472	2.1	359	2.0	417	1.8								
	Sub Total	OP	472	2	359	2	417	2	0	0	0	0	0	0	0	0
ADS 2300 SUB TOTALS		OP	35,081	195	26,774	181	27,891	182	27,900	179	27,900	179	27,900	178	27,900	178

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Cost Baseline Summary - By ADS - By Cost Account - By Year (\$ in 000s) TARGET																
RL WBS	WBS TITLE	FUND TYPE	1996		1997 Target		1998 Target		1999 Target		2000 Target		2001 Target		2002 Target	
			\$000	FTEs	\$000	FTEs	\$000	FTEs	\$000	FTEs	\$000	FTEs	\$000	FTEs	\$000	FTEs
		CE	200	0	100	0	100	0	100	0	100	0	100	0	100	0
		GPP	2,500	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL BUDGET ADS 2300-0			37,781	195	26,874	181	27,991	182	28,000	179	28,000	179	28,000	178	28,000	178
ADS 2300-1 PHASE II TREATMENT/DISPOSAL																
1.2.2.1.5	Phase II Effluent Treatment/Disposal		399	4	226	2	9	0	0	0	0	0	0	0	0	0
1.2.2.1.5.0001	BAT Implementation Phase II Streams	OP	399	4.2	226	2.2	9	.1								
1.2.2.1.5.0002	Project W-252	LI														
Sub Total		OP	399	4	226	2	9	0	0	0	0	0	0	0	0	0
Sub Total		LI	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL BUDGET ADS 2300-1			399	4	226	2	9	0	0	0	0	0	0	0	0	0
ADS 2330-0 LIQUID EFFLUENTS FUTURE PROJECTS																
1.2.2.1.96	340 Facility Secondary Containment		1,020	5	0	0	0	0	0	0	0	0	0	0	0	0
1.2.2.1.6.0001	340 Facility Secondary Containment	OP	1,020	5.0												
1.2.2.1.6.0002	Project W-302	LI														
Sub Total		OP	1,020	5	0	0	0	0	0	0	0	0	0	0	0	0

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Cost Baseline Summary - By ADS - By Cost Account - By Year (\$ in 000s) TARGET																
RL WBS	WBS TITLE	FUND TYPE	1996		1997 Target		1998 Target		1999 Target		2000 Target		2001 Target		2002 Target	
			\$000	FTEs	\$000	FTEs	\$000	FTEs	\$000	FTEs	\$000	FTEs	\$000	FTEs	\$000	FTEs
	Sub Total	LI	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL BUDGET/FUNDING ADS 2330-0			1,020	5	0	0	0	0	0	0	0	0	0	0	0	0
LIQUID EFFLUENTS PROGRAM SUB TOTALS		OP	36,500	204	27,000	183	27,900	182	27,900	179	27,900	179	27,900	178	27,900	178
		CE	200	0	100	0	100	0	100	0	100	0	100	0	100	0
		GPP	2,500	0	0	0	0	0	0	0	0	0	0	0	0	0
		LI	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LIQUID EFFLUENTS PROGRAM GRAND TOTAL BUDGET			39,200	204	27,100	183	28,000	182	28,000	179	28,000	179	28,000	178	28,000	178

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Cost Baseline Summary - By ADS - By Cost Account - By Year (\$ in 000s) REQUIRED																
RL WBS	WBS TITLE	FUND TYPE	1996		1997 Required		1998 Required		1999 Required		2000 Required		2001 Required		2002 Required	
			\$000	FTEs	\$000	FTEs	\$000	FTEs	\$000	FTEs	\$000	FTEs	\$000	FTEs	\$000	FTEs
ADS 2300-0 LIQUID EFFLUENTS																
1.2.2.1.1	Program Office		4,893	16	2,533	15	2,593	15	2,655	15	2,723	15	2,788	15	2,788	15
1.2.2.1.1.0001	Program Management	OP	2,518	16.1	2,033	15.0	2,093	15.0	2,155	15.0	2,223	15.0	2,288	15.0	2,288	15.0
1.2.2.1.1.0002	Program Fees and Misc Charges	OP	2,375	0	500	0	500	0	500	0	500	0	500	0	500	0
	Sub Total	OP	4,893	16	2,533	15	2,593	15	2,655	15	2,723	15	2,788	15	2,788	15
1.2.2.1.2	200 Area LEF Operations		24,708	121	23,008	118	23,320	117	23,859	116	20,495	116	21,086	115	21,086	115
1.2.2.1.2.0001	200 Area TEDF SMECO	OP	4,461	29.1	4,500	29.0	4,616	29.0	4,790	29.0	4,943	29.0	5,087	28.9	5,087	28.9
1.2.2.1.2.0002	200 Area ETF SMECO	OP	7,757	46.0	7,605	44.8	7,800	44.8	8,093	44.8	8,356	44.8	8,597	44.6	8,597	44.6
1.2.2.1.2.0003	200 Area LERF SMECO	OP	963	6.8	963	6.6	986	6.6	1,024	6.6	1,056	6.6	1,087	6.6	1,087	6.6
1.2.2.1.2.0004	200 Area ETF Process Operations	OP	6,203	35.6	5,372	33.9	5,510	33.9	5,717	33.9	5,901	33.9	6,072	33.9	6,072	33.8
1.2.2.1.2.0005	200 Area ETF Enhancements	OP	1,224	3.6	468	3.3	308	3.1	135	1.3	139	1.3	143	1.3	143	1.3
1.2.2.1.2	200 Area LEF Capital Equipment	CE	100	0	100	0	100	0	100	0	100	0	100	0	100	0
1.2.1.1.2	Upgrade Projects	GPP	4,000	0	4,000	0	4,000	0	4,000	0						
	Sub Total	OP	20,608	121	18,908	118	19,220	117	19,759	116	20,395	116	20,986	115	20,986	115
	Sub Total	CE	100	0	100	0	100	0	100	0	100	0	100	0	100	0
	Sub Total	GPP	4,000	0	4,000	0	4,000	0	4,000	0	0	0	0	0	0	0

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Cost Baseline Summary - By ADS - By Cost Account - By Year (\$ in 000s) REQUIRED																
RL WBS	WBS TITLE	FUND TYPE	1996		1997 Required		1998 Required		1999 Required		2000 Required		2001 Required		2002 Required	
			\$000	FTEs	\$000	FTEs	\$000	FTEs	\$000	FTEs	\$000	FTEs	\$000	FTEs	\$000	FTEs
1.2.2.1.3	300 Area LEF Operations		9,199	56	9,307	58	8,427	55	8,739	55	9,017	55	9,274	54	9,274	54
1.2.2.1.3.0001	300 Area TEDF SMECO	OP	4,255	25.0	4,121	25.6	4,227	25.6	4,385	25.6	4,527	25.6	4,658	25.5	4,658	25.5
1.2.2.1.3.0002	340 Facility SMECO	OP	3,517	25.2	3,677	25.8	3,772	25.8	3,914	25.8	4,038	25.8	4,154	25.7	4,154	25.7
1.2.2.1.3.0004	300 Area TEDF Enhancements	OP	157	1.5	160	1.6	164	1.6	170	1.6	176	1.6	181	1.6	181	1.6
1.2.2.1.3.0005	340 Facility Enhancements	OP	1,170	3.8	1,249	4.8	164	1.6	170	1.6	176	1.6	181	1.6	181	1.6
1.2.2.1.3	300 Area LEF Capital Equipment	CE	100	0	100	0	100	0	100	0	100	0	100	0	100	0
	Sub Total	OP	9,099	56	9,207	58	8,327	55	8,639	55	8,917	55	9,174	54	9,174	54
	Sub Total	CE	100	0	100	0	100	0	100	0	100	0	100	0	100	0
1.2.2.1.4	Liquid Effluents Engineering		474	2	359	2	417	2	0	0	0	0	0	0	0	0
1.2.2.1.4.0004	Miscellaneous Streams	OP	474	2.1	359	2.0	417	1.8								
	Sub Total	OP	474	2	359	2	417	2	0	0	0	0	0	0	0	0
ADS 2300 SUB TOTALS		OP	35,074	195	31,007	193	30,557	189	31,053	186	32,035	186	32,948	184	32,948	184
		CE	200	0	200	0	200	0	200	0	200	0	200	0	200	0
		GPP	4,000	0	4,000	0	4,000	0	4,000	0	0	0	0	0	0	0

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Cost Baseline Summary - By ADS - By Cost Account - By Year (\$ in 000s) REQUIRED																
RL WBS	WBS TITLE	FUND TYPE	1996		1997 Required		1998 Required		1999 Required		2000 Required		2001 Required		2002 Required	
			\$000	FTEs	\$000	FTEs	\$000	FTEs	\$000	FTEs	\$000	FTEs	\$000	FTEs	\$000	FTEs
TOTAL BUDGET ADS 2300-0			39,274	195	35,207	193	34,757	189	35,253	186	32,235	186	33,148	184	33,148	184
ADS 2300-1 PHASE II TREATMENT/DISPOSAL																
1.2.2.1.5	Phase II Effluent Treatment/Disposal		402	4	226	2	9	0	0	0	0	0	0	0	0	0
1.2.2.1.5.0001	BAT Implementation Phase II Streams	OP	402	4.2	226	2.2	9	.1								
1.2.2.1.5.0002	Project W-252	LI														
Sub Total		OP	402	4	226	2	9	0	0	0	0	0	0	0	0	0
Sub Total		LI	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL BUDGET ADS 2300-1			402	4	226	2	9	0	0	0	0	0	0	0	0	0
ADS 2330-0 LIQUID EFFLUENTS FUTURE PROJECTS																
1.2.2.1.6	340 Facility Secondary Containment		1,024	5	2,788	4	9,487	1	2,383	9	0	0	0	0	0	0
1.2.2.1.6.0001	340 Facility Secondary Containment	OP	1,024	5.0	418	3.5	137	1.4	1,003	8.5						
1.2.2.1.6.0002	Project W-302	LI			2,370	0	9,350	0	1,380	0						
Sub Total		OP	1,024	5	418	4	137	1	1,003	9	0	0	0	0	0	0
Sub Total		LI	0	0	2,370	0	9,350	0	1,380	0	0	0	0	0	0	0

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev. 1

Cost Baseline Summary - By ADS - By Cost Account - By Year (\$ in 000s) REQUIRED																
RL WBS	WBS TITLE	FUND TYPE	1996		1997 Required		1998 Required		1999 Required		2000 Required		2001 Required		2002 Required	
			\$000	FTEs	\$000	FTEs	\$000	FTEs	\$000	FTEs	\$000	FTEs	\$000	FTEs	\$000	FTEs
TOTAL BUDGET/FUNDING ADS 2330-0			1,024	5	2,788	4	9,487	1	2,383	9	0	0	0	0	0	0
LIQUID EFFLUENTS PROGRAM SUB TOTALS		OP	36,500	204	31,651	199	30,703	190	32,056	195	32,035	186	32,948	184	32,948	184
		CE	200	0	200	0	200	0	200	0	200	0	200	0	200	0
		GPP	4,000	0	4,000	0	4,000	0	4,000	0	0	0	0	0	0	0
		LI	0	0	2,370	0	9,350	0	1,380	0	0	0	0	0	0	0
LIQUID EFFLUENTS PROGRAM GRAND TOTAL BUDGET			40,700	204	38,221	199	44,253	190	37,636	195	32,235	186	33,148	184	33,148	184

LIQUID EFFLUENTS
WBS 1.2.2.1

FY, 1996 Program Plan

WHC-SP-1097 Rev 1

3.3.2 Basis of Estimate

Activity/Cost Acct		FY 1996 Tar/Req	FY 1997 Tar/Req	FY 1998 Tar/Req
ADS 2300-0 Liquid Effluents	Budget \$	37,774/ 39,274	26,874/ 35,207	27,991 34,757
	FTE	195/195	181/193	182/189
ADS 2300-1 Phase II Treatment/ Disposal	Budget \$	402/402	226/226	9/9
	FTE	4/4	2/2	0/0
ADS 2330-0 Liquid Effluents Future Projects	Budget \$	1,024/ 1,024	0/2,788	0/9,487
	FTE	5/5	0/4	0/1
TOTAL PROGRAM	Budget \$	39,200/ 40,700	27,100/ 38,221	28,000/ 44,253
	FTE	204/204	183/199	182/190

Basis of Estimate (Methodology of estimate and justification of scope)

- The Basis of Estimate (BOE); estimate type/risk was assigned at the task package level, the level at which the work is charged.
- Task package cost detail summarizes at the cost account level providing totals by cost account plan.
- The Basis of Estimate can be located on the detailed forms, "Scheduling Activity - Estimating Work Sheet", retained with our detailed estimate in the Liquid Effluents Program Office. These forms were created by those groups responsible for performing the work scope and were used for input to create fully resource loaded schedules utilizing the new PX Scheduling Software.
- Liquid Effluents Cost Estimate Overview:

Estimate Stage	Performance Based
Estimate Category	Baseline
Estimate Methodology	Definitive (bottoms up review) Analogy (for ADS reviews, reviews of similar facilities within DOE complex and civilian industry)

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

- This effort is designed to formulate an activity based cost estimate and schedule baseline for the Liquid Effluents Program's annual projected work and build on historical record of expenditures and performance for future planning.

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

3.3.3 Planned Staffing Profiles

Job Category	1996	1997	1998	1999	2000	2001	2002
MANAGERS	21.1	21.1	21.4	21.4	20.7	20.7	20.7
First line	3.6	3.6	3.6	3.6	3.6	3.6	3.6
General/executive	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Project/Program	.2	.3	.2	.2	.2	.2	.2
Other	15.7	15.6	16.0	16.0	15.3	15.3	15.3
ENGINEERS	74.8	62.7	58.5	56.5	57.2	57.0	57.0
General	41.3	34.1	30.1	30.5	30.3	30.2	30.2
Chemical							
Civil							
Computer	.2	.2	.2	.2	.2	.2	.2
Electrical							
Environmental	14.6	12.8	12.7	10.6	10.5	10.4	10.4
Industrial							
Mechanical							
Nuclear							
Petroleum/Mining							
Plant	13.5	10.8	10.8	10.8	11.8	11.8	11.8
Quality Control	2.0	1.8	1.8	1.8	1.8	1.8	1.8
Safety	3.2	3.0	2.9	2.6	2.6	2.6	2.6
Other							
SCIENTISTS	2.7	2.9	2.8	2.8	2.8	2.8	2.8
Chemists	.4	.4	.4	.4	.4	.4	.4
Environmental	.6	.6	.6	.6	.6	.6	.6
Geologists	.5	.7	.6	.6	.6	.6	.6
Life							
Material							
Mathematicians							
Physicists							

**LIQUID EFFLUENTS
WBS 1.2.2.1**

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Job Category	1996	1997	1998	1999	2000	2001	2002
Social							
Other	1.2	1.2	1.2	1.2	1.2	1.2	1.2
DMIN/OTHER PROFESSIONALS	27.1	27.3	26.9	27.9	26.7	26.7	26.7
General							
Accountant/auditor	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Architect							
Buyers/procurement	.9	.9	.9	.9	.9	.9	.9
Communications							
Compliance inspectors							
Computer System Anal	3.1	3.1	3.1	3.1	3.1	3.1	3.1
Cost Est/planner/sch	11.5	11.6	11.3	11.1	11.1	11.1	11.1
Health Physics	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Industrial Hygiene							
Lawyers							
Personnel/Labor Rela							
Physicians							
Physician Assis/Nurs							
Safeguard & Security							
Tech Writers & Edit	.1	.1					
Trainers	2.5	2.5	2.5	3.7	2.5	2.5	2.5
Other	3.0	3.1	3.1	3.1	3.1	3.1	3.1
GEN ADM/SECRETARY/CLERK	15.3	14.3	14.1	13.8	13.7	13.7	13.7
Admin Assistants	4.5	3.5	3.4	3.4	3.4	3.4	3.4
Office Clerks (Gen)	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Office Clerks (Special)	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Secretaries	3.0	3.0	2.9	2.6	2.5	2.5	2.5
Typist/Word Process							
Other							

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Job Category	1996	1997	1998	1999	2000	2001	2002
TECHNICIANS	14.7	14.1	14.6	13.7	13.6	13.6	13.6
Computer Oper/Coder							
Drafters							
Engrs/Tech							
Envir. Sci Technicians							
Health Phys. Technic.	9.5	8.9	9.4	8.5	8.4	8.4	8.4
Indus. Saf/Health Tech							
Instru/Control Tech	4.8	4.8	4.8	4.8	4.8	4.8	4.8
Lab. Technicians	.4	.4	.4	.4	.4	.4	.4
Media Technicians							
Survey/Map Tech							
Other							
CRAFTS	11.3	11.0	10.7	10.7	10.7	10.7	10.7
General	1.0	.7	.4	.4	.4	.4	.4
Carpenters	.2	.2	.2	.2	.2	.2	.2
Electricians	3.4	3.4	3.4	3.4	3.4	3.4	3.4
HVAC							
Machinists							
Masons							
Millwrights	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Painters	.2	.2	.2	.2	.2	.2	.2
Plumbers/Pipefitters	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Struct/Metal Workers							
Vehic./Mob Equip Mech							
Welders							
Other	.6	.6	.6	.6	.6	.6	.6
OPERATORS	37.5	29.6	32.6	32.7	32.6	32.5	32.5
Chemical System							
Drillers							
Lt. Vehicle Drivers							

LIQUID EFFLUENTS
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

Job Category	1996	1997	1998	1999	2000	2001	2002
Material Moving Equip							
Nuclear Plant	36.8	29.2	32.2	32.3	32.2	32.1	32.1
Utilities Waste Proces							
Other	.7	.4	.4	.4	.4	.4	.4
LABOR & GEN WORKERS							
Firefighters							
Food Service							
Hand/Help Lab Gen							
Hand/Help Lab Spec							
Janitors/Cleaners	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Laundry Workers							
Security Guards							
Other	.5	.2	.2	.2	.2	.2	.2
	204.5	183.0	181.6	179.5	178.0	177.7	177.7

3.4 PERFORMANCE MEASURES

The Liquid Effluents Program is planned and executed following the approved Site Management System to the maximum extent possible. A baseline has been established with the full application of Activity Based Cost Estimating. A complete Basis of Estimate has been developed to the sub-task level and is on file in the Program Office library. The Basis of Estimate sheets developed by the Cost Account Managers were used to develop the complete resource loaded schedules for the Program. These schedules, utilizing the Hanford Site standard Px scheduling software, were in turn used to input to the WHC Financial Data System for the application of company standard rates and the development of Cost Account Plans. Schedules are statused each month by the Cost Account Managers (CAMs). This status, when entered into the scheduling system, is used to calculate variances which forms the basis for measurement of performance (earned value).

Site Management System/Progress Tracking System (SMS/PTS) - Each month detailed reporting of progress, achievements, and variance explanations is formalized in the monthly SMS and PTS reports prepared by the Program Office.

Cost/Budget Analysis and Forecast - Detailed spreadsheets are maintained to track the actual costs vs budget, and monthly Estimates-At-Completion/Fiscal Year Spending Forecasts are developed by the Program Office with CAM input.

Change Control - Formal change control is maintained following the WHC Change Control System as prescribed by the Management Control System. Change Control files and logs are maintained by the Program Office and Cost Account. Authorizations are updated as changes are approved. The effects of changes on the individual cost accounts are tracked and recorded on a tracking spreadsheet.

Performance Based Initiatives - The Liquid Effluents Program participates in the PBI process and has established several PBIs to track and recognize achievement when it exceeds satisfactory.

Cost Estimate Validation - The Program Cost Estimates and Bases of Estimate are thoroughly reviewed and validated by RL Waste Management Division staff members. This review and validation results in a valuable partnership in the early planning process of the Liquid Effluents Program. The resulting plans are more readily defensible by Program and RL members of the Liquid Effluents team.

Customer Interface - In addition to the hands-on participation by the RL and WHC staff in the development of the plan, monthly interface meetings are scheduled. During these meetings milestones are statused, variances are analyzed, pending change requests are evaluated, and concerns are discussed.

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**LIQUID EFFLUENT
WBS 1.2.2.1**

FY 1996 Program Plan

WHC-SP-1097 Rev 1

4.0 EXECUTION YEAR

4.0 EXECUTION YEAR	4-1
4.1 TECHNICAL OBJECTIVES	4-3
PROGRAM MANAGEMENT:	4-3
Program Management/Administration	4-3
Systems Engineering	4-3
Treatability Laboratory	4-3
200 AREA OPERATIONS:	4-3
200 Area Effluent Treatment Facility	4-3
200 Area TEDF	4-4
200 Area ETF Safe Minimum Environmental Compliant Operations	4-5
LERF SMECO	4-7
200 Area Process Operations	4-9
200 Area Enhancements	4-11
300 AREA OPERATIONS:	4-11
300 Area TEDF	4-11
340/307 Facilities	4-12
300 Area Process Sewer and Trenches	4-14
Project W-302, 340 Facility Replacement	4-14
LIQUID EFFLUENTS ENGINEERING:	4-14
Phase II Stream BAT/AKART (W-252)	4-14
200 Area Advanced Engineering Support	4-14
300 Area Advanced Engineering Support	4-14
MISCELLANEOUS STREAMS	4-15
4.1.1 Program Building Blocks	4-16
FY 1996	4-16
FY 1997	4-19
4.2 PROGRAM PERFORMANCE BASELINE SCHEDULE	4-23
4.3 COST BASELINE BY MONTH	4-29
OPERATING EXPENSE - By ADS - By Cost Account - By Month (\$ in 000s)	4-29
OPERATING EXPENSE - By ADS - By Cost Element - By Month (\$ in 000s)	4-31
CAPITAL EQUIPMENT NOT RELATED TO CONSTRUCTION - By ADS - By Month (\$ 000s)	4-33
GENERAL PLANT PROJECT - By ADS - By Month (\$ in 000s)	4-34
LINE ITEM - By ADS - By Month (\$ in 000s)	4-35
4.3.1 Fiscal Year 1995 Carryover Funds and Workslope	4-36
4.4 PROGRAM FUNDING REQUIRED	4-37

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

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4.1 TECHNICAL OBJECTIVES

PROGRAM MANAGEMENT:

- Program Management/Administration
 - * Prepare monthly Site Management System (SMS), Progress Tracking System (PTS) Reports
 - * Prepare Program Activity Data Sheets, MYPP/FYWP
 - * Prepare Resource Loaded Schedules
- Systems Engineering
 - * Update the systems engineering documentation for changes in the technical baseline.
 - * Define and document Liquid Effluents Program interfaces with other programs.
 - * Identify candidate feeds to Liquid Effluents Facilities.
- Treatability Laboratory
 - * Operate and maintain the micro pilot plant
 - * Plan treatability tests and report test results. This consists of testing the LERF content prior to each ETF campaign, testing alternate feeds for treatability in the ETF, generating data needed for permit modifications, and testing organics not in the Waste Acceptance Criteria for the 300 Area TEDF.

200 AREA OPERATIONS:

- 200 Area Effluent Treatment Facility
 - * Complete Operational Readiness Review and hot startup
 - * Operate and maintain facility per applicable permit requirements

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev. 1

- * Operate facility for six months beginning in the first quarter FY 1996 and transition into wet standby.
- 200 Area TEDF
 - * Operate and maintain the minimum necessary equipment of the 200 Area TEDF in a safe and environmentally compliant condition. Minimum operations and maintenance is defined as those surveillances, operations, maintenance, reporting, and support activities required to maintain and operate the facility in accordance with DOE requirements and the Ecology Waste Discharge Permit.
 - * Support continued round-the-clock operations of the seven facilities which discharge into the TEDF.
 - * Provide operational surveillance and sampling.
 - * Provide cognizant/process engineering support to facilitate reliable operation of the TEDF Facility. Maintain the Interface Control Document (ICD)
 - * Provide radiological control activities in accordance with the Code of Federal Regulations and Hanford Site standards.
 - * Provide preventive and predictive maintenance (maintenance, work control, and engineering support) in order to support the TEDF.
 - * Perform maintenance, work control and engineering activities that support the TEDF in maintaining facility equipment to ensure that the facility is operated reliably, cost effective, and in full compliance with both occupational safety and regulatory requirements.
 - * Maintain tools, equipment, and material inventories as necessary to support efficient facility maintenance.
 - * Coordinate and provide analytical laboratory support for the TEDF.
 - * Provide safety overview of the TEDF documents along with safety oversight of TEDF operations and maintenance.
 - * Perform environmental compliance tasks to ensure that the TEDF is operated in an environmentally compliant manner along with the discharge to the TEDF from the generators. Provide Environmental Engineering and Environmental Compliance Officer support for the 200 Area TEDF.

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

- * Provide management overview and administrative support.
 - * Perform maintenance and coordination of the facility's administrative, maintenance, and operating procedures.
 - * Prepare and track facility performance measures, self-assessments, and oversight programs. Provide semi-annual Performance Evaluation Board input and perform the semi-annual self-assessment, manage and track the Management Oversight Program, maintain a drill program and administer the resulting lessons-learned program.
 - * Maintain Conduct of Operations.
 - * Provide miscellaneous support to the TEDF such as QA, janitorial services, weed/pest control, and other support to efficiently operate the facility.
 - * Maintain the TEDF training program curriculum to meet the facility's staffing requirements. Conduct operational evaluations.
 - * Support event reporting, emergency preparedness, accident investigations, and the Site-Wide Emergency Preparedness Drill Program.
- 200 Area ETF Safe Minimum Environmental Compliant Operations
 - * Operate and maintain the minimum equipment necessary in a safe and environmentally secure manner to comply with state and federal regulations and permits. Minimum operations and maintenance is defined as those surveillances, operations, maintenance, and support activities required to control the facility in a shutdown mode. The facility support systems will be operated and maintained during this period. Only waste created from housekeeping and maintenance activities will be generated. Only required surveillance, training, and reporting activities necessary to satisfy Washington State, Department of Energy, and other federal requirements will be performed.
 - * Provide operational surveillance and sampling.
 - * Provide cognizant/process engineering support (WHC-CM-6-1, EP 5.2) to facilitate the reliability of those systems necessary to support ETF Standby Operation.

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

- * Respond to system operating anomalies in standby systems (heating, ventilation, and air conditioning) to prevent any service interruptions.
- * Provide technical input/evaluations to continually upgrade/maintain the ETF Operating Procedures, Alarm Response Procedures, and design documentation.
- * Provide radiological control support for maintenance activities in accordance with 10CFR835 and the Hanford Site Radiological Control Manual (HSRCM).
- * Plan/schedule/perform instrument calibrations, equipment PMs, predictive maintenance tests, and corrective maintenance as scheduled.
- * Provide maintenance and technical support to the facility as necessary.
- * Perform maintenance, work control and engineering support activities that will be required to support ETF.
- * Maintain tools, equipment, and material inventories as necessary to support efficient facility maintenance.
- * Coordinate and provide analytical laboratory support for the ETF.
- * Provide Safety reviews of the ETF operating documents along with safety oversight of ETF Operations.
- * Provide a basic level of safety overview support to be able to maintain the 200 Area ETF in an safe, minimum, environmentally compliant mode.
- * Provide Environmental Engineering and Environmental Compliance Officer support for the 200 Area ETF.
- * Prepare submittals required by the State Waste Discharge Permit, the Federal Delisting Petition, RCRA interim Status Requirements, the Toxic Air Permit, and the RAEP permit.
- * Prepare the final RCRA Part B permit application for the ETF and participate in Ecology workshops to incorporate the ETF into the Site Wide RCRA permit.

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

- * Maintain a waste management program for the control and shipment of mixed, low-level, and hazardous waste generated while the ETF is in SMECO.
- * Develop a tritium tracking system, confirm the time for the tritium to reach the Columbia River, and evaluate tritium separation technologies.
- * Provide ETF management overview and administrative support. Perform budget and scheduling activities, performance appraisals and administration of staff personal development activities.
- * Perform technical editing, approval coordination, distribution, and maintenance of the facility's administrative, maintenance, and operating procedures. Review and coordinate application of Company procedures within the ETF organization.
- * Prepare facility performance measures and track facility performance. Provide semi-annual PEB input and perform the semi-annual self assessment, manage and track the Management Oversight Program, maintain a drill program and administer the resulting lessons learned program.
- * Maintain Conduct of Operations.
- * Maintain the ETF training program to meet the facility's staffing requirements. Maintain the training curriculum in support of the ETF's operation. Conduct follow-up training in support of initial facility startup. Conduct operational evaluations.
- * Provide event reporting, emergency preparedness, and accident investigations. Conduct EP/APC drills in support of facility operations. Support site-wide Emergency Preparedness drill program.
- LERF SMECO
 - * Operate and maintain the LERF in a safe and environmentally compliant manner with minimum operations to store the 242-A Evaporator process condensate and other waste feeds until such time that it can be processed by the 200 Area Effluent Treatment Facility.
 - * Perform the annual clean out requirements required by RCRA.
 - * Provide cognizant/process engineering support (WHC-CM-6-1, EP 5.2) to facilitate reliable operation of the LERF Facility.

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

- * Provide radiological control support in accordance with 10CFR835 and the Hanford Site Radiological Control Manual (HSRCM).
- * Plan/schedule/perform instrument calibrations, equipment PMs, predictive maintenance tests, and corrective maintenance as scheduled.
- * Provide maintenance and technical support to the facility as necessary to permit a successful operating campaign. Perform maintenance, work control and engineering support activities required to support LERF.
- * Maintain tools, equipment, and material inventories as necessary to support efficient facility maintenance.
- * Coordinate laboratory support for the LERF.
- * Provide Safety reviews of the LERF operating documents along with safety oversight of the TEF operations.
- * Provide environmental engineering support to ensure compliance with RCRA interim status requirements. Integrate the ETF and LERF Part B permit applications and participate in regulator workshops for the incorporation into the site-wide RCRA permit.
- * Provide Environmental Compliance Officer to maintain the LERF in an environmentally compliant condition.
- * Provide management overview and administrative support.
- * Perform technical editing, approval coordination, distribution, and maintenance of the facility's administrative, operating, and maintenance procedures.
- * Prepare facility performance measures and track facility performance.
- * Provide semi-annual PEB input and perform the semi-annual self assessment, manage and track the Management Oversight Program, maintain a drill program and administer the resulting lessons learned program.
- * Maintain Conduct of Operations.
- * Maintain the training program to meet the facility's staffing requirements.

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

- * Provide event reporting, emergency preparedness, and accident investigations. Conduct EP/APC drills in support of facility operations. Support site-wide Emergency Preparedness drill program.
- 200 Area Process Operations
 - * Operate and maintain the 200 Area Effluent Treatment Facility (ETF) in accordance with the operating schedule in a safe, cost effective, and environmentally compliant manner. This includes operations of the ETF in such a manner as to treat the contents of the LERF between November 1995 and April 1996.
 - * Perform routine operating activities that support the 200 Area Effluent Treatment Facility. These routine activities will consists of control room activities, sampling, surveillances, maintenance tasks, waste handling and shipping.
 - * Provide cognizant/process engineering support (WHC-CM-6-1, EP 5.2) to facilitate the reliable operation of the ETF Facility.
 - * Provide radiological control support for operating and maintenance activities in accordance with 10CFR835 and the Hanford Site Radiological Control Manual (HSRCM).
 - * Plan/schedule/perform instrument calibrations, equipment PMs, predictive maintenance tests, and corrective maintenance as scheduled.
 - * Provide maintenance and technical support to the facility as necessary to permit a successful operating campaign.
 - * Provide maintenance and technical support to the facility as necessary to permit a successful operating campaign. Perform maintenance, work control and engineering support activities that will be required to support the startup and operation of ETF.
 - * Maintain tools, equipment, and material inventories as necessary to support efficient facility maintenance.
 - * Provide Safety review of the ETF operating documents along with safety oversight of the ETF operations.
 - * Coordinate and provide analytical laboratory support for the operation of the ETF.

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

- * Utilize the Liquid Effluent Monitoring Information System (LEMIS) for the storage, reporting and archiving of the data.
- * Support all permitting requirements. Maintain a permit reporting system, and support ECO activities.
- * Provide Environmental Engineering and Environmental Compliance Officer support for the operation of the ETF.
- * Support waste shipping activities to include maintaining waste certification plans, a waste minimization plan, waste handling procedures, and EPRI Report.
- * Provide hazardous waste, low-level, and mixed waste handling support for the operation of the ETF. This support includes the task necessary to characterize the waste and ship the waste from the ETF.
- * Provide ETF management overview and administrative support. Perform budget and scheduling activities, performance appraisals and administration of staff personal development activities.
- * Perform technical editing, approval coordination, distribution, and maintenance of the facility's administrative and operating procedures. Review and coordinate application of Company procedures within the ETF organization.
- * Prepare facility performance measures and track facility performance. Provide semi-annual PEB input and perform the semi-annual self assessment, manage and track the Management Oversight Program, maintain a drill program and administer the resulting lessons learned program.
- * Maintain Conduct of Operations.
- * Maintain the ETF training program to meet the facility's staffing requirements.
- * Provide event reporting, emergency preparedness, and accident investigations. Conduct EP/APC drills in support of facility operations. Support site-wide Emergency Preparedness drill program.
- * Prepare documentation to certify organizations, management, personnel and facility are ready for ETF operation.

**LIQUID EFFLUENT
WBS 1.2.2.1**

FY 1996 Program Plan

WHC-SP-1097 Rev 1

- * Support all permitting requirements. Maintain a permit reporting system, and support ECO activities.
 - * Provide Environmental Engineering and Environmental Compliance Officer support for the startup of ETF.
 - * Coordinate initial procedure development, perform technical editing, approval coordination, distribution, and maintenance of the facility's administrative and operating procedures.
 - * Maintain the ETF training program to meet the facility's staffing requirements. Maintain the training curriculum in support of the ETF's operation.
 - * Provide event reporting, emergency preparedness, and accident investigations. Conduct EP/APC drills in support of facility operations. Support site-wide Emergency Preparedness drill program.
- 200 Area Enhancements
 - * Provide engineering and project management support to the GPP for ETF Pipeline Flexibility Enhancements.
 - * Provide engineering and project management support to the GPP for ETF Filtration System Upgrade.

300 AREA OPERATIONS:

- 300 Area TEDF
 - * Operate the 310 Treated Effluent Disposal Facility, and associated components in compliance with applicable Westinghouse Hanford, U.S. Department of Energy (RL), Federal, and State requirements.
 - * Ensure that required reports, assessments, and documentation are prepared and issued in a timely manner.
 - * Oversee and prepare the required documents to support, and track environmental compliance activities and ensure they are maintained in compliance with customer (U.S. Department of Energy, Ecology, and EPA) requirements.
 - * Support maintenance, housekeeping, and other routine evolutions required to maintain the operations of the Facility.

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

- * Perform preventive and corrective maintenance in order to maintain safety, and proper operating conditions to meet applicable governing requirements, i.e., Occupational Safety and Health Administration (OSHA), U.S. Department of Energy, Richland Operations Office (RL), WHC, the State of Washington Department of Ecology (Ecology), and the U.S. Environmental Protection Agency (EPA) standards.
 - * Perform sampling of waste streams to ensure compliance with waste acceptance criteria and permits, including necessary sampling, analysis, and reporting to support compliant operations of TEF under the National Pollutant Discharge Elimination System (NPDES) permit.
 - * Reopen the NPDES permit and renegotiate new discharge limits. Prepare for the negotiations by systematically collecting data to support proposed new limits.
 - * Perform necessary process sampling, analysis, and facility modifications to ensure that the process operates properly, and treatment operations are efficient.
 - * Maintain configuration control of the facility through engineering change notices, as-built programs, and other engineering practices.
 - * Provide process engineering services.
 - * Provide support in preparing documentation, work packages and person-in-charge support to small upgrade projects performed to maintain compliance with U.S. Department of Energy (DOE) requirements.
 - * Prepare operating and maintenance procedures, including data gathering, issuing procedures for review, resolving comments, and finalizing for distribution. Also includes modifying existing procedures in order to comply with changing plant conditions.
 - * Train personnel to mandatory and directed requirements as outlined in the 300 Area Liquid Effluent Facility (LEF) Training Matrix (TMX)
 - * Investigate and report off-normal plant events as required by applicable DOE Orders. Pursue corrective actions when required, implementing a graded approach based on associated risk.
- 340/307 Facilities
- * Operate the 340 Facility and 307 Basins, and associated components in compliance with applicable Westinghouse Hanford, U.S. Department of Energy (RL), Federal, and State requirements.

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

- * Ensure that required reports, assessments, and documentation are prepared and issued in a timely manner.
- * Oversee and prepare the required documents to support, and track environmental compliance activities and ensure they are maintained in compliance with customer (U.S. Department of Energy, Ecology, EPA) requirements.
- * Support maintenance, housekeeping, and other routine evolutions required to maintain the operations of the Facility.
- * Manage radioactive liquid waste receipts from the generators (PNL) in compliance with WHC controls and DOE requirements.
- * Perform necessary tank and vault sampling as required for characterization and compliance assurance.
- * Package and prepare to ship radioactive solid waste, hazardous solid waste, and radioactive liquid waste in order to meet regulatory requirements.
- * Perform preventive and corrective maintenance in order to maintain safety, and proper operating conditions to meet applicable governing requirements, i.e., Occupational Safety and Health Administration (OSHA), U.S. Department of Energy, Richland Operations Office (RL), WHC, the State of Washington Department of Ecology (Ecology), and the U.S. Environmental Protection Agency (EPA) standards.
- * Maintain configuration control of the facility through engineering change notices, as-built programs, and other engineering practices.
- * Provide process engineering services.
- * Provide support in preparing documentation, work packages and person-in-charge support to small upgrade projects performed to maintain compliance with U.S. Department of Energy (DOE) requirements.
- * Prepare operating and maintenance procedures, including data gathering, issuing procedures for review, resolving comments, and finalizing for distribution. Also includes modifying existing procedures in order to comply with changing plant conditions.
- * Train personnel to mandatory and directed requirements as outlined in the 300 Area Liquid Effluent Facility (LEF) Training Matrix (TMX).

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

- * Investigate and report off-normal plant events as required by applicable DOE Orders. Pursue corrective actions when required, implementing a graded approach based on associated risk.
- 300 Area Process Sewer and Trenches
 - * Review facility design
- Project W-302, 340 Facility Replacement
 - * Complete FDC revisions as necessary
 - * Prepare a CDR

LIQUID EFFLUENTS ENGINEERING:

- Phase II Stream BAT/AKART (W-252)
 - * Complete BAT/AKART design
 - * Complete construction
 - * Complete Operational Readiness Review and hot start-up
 - * Modify applicable permits
- 200 Area Advanced Engineering Support
 - * Complete future waste stream checklist for suitability testing
 - * Investigate each possible future waste stream
 - * Define possible future uses for LERF Basins and permit modification requirements
 - * Negotiate with regulators regarding LERF Basin uses and future waste streams
 - * Review and prepare yearly status in tritium technology developments for applicable addition to 200 Area ETF
- 300 Area Advanced Engineering Support

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

- * Investigate each possible future waste stream
- * Complete negotiations with City of Richland on suitability to privatize 300 Area TEDF operations and connect to the POTW

MISCELLANEOUS STREAMS

- * Registration of Class V Underground Injection Wells
- * Submit four WAC-216 categorical permit applications
- * Prepare Implementation Plan for Categorical Permits
- * Submit a plan for the implementation of Best Management Practices (BPM)
- * Annually update the Miscellaneous Stream Inventory

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WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

4.1.1 Program Building Blocks

FY 1996						
ADS	Description	RL Pri	Fund Type	FY 1996	CUM FY 1996	Justification of Scope/Impact if not funded
2300-0	Program Management Support - Management, Program Admin, Planning, Scheduling, Reporting, Control		Exp	2,065	2,065	Provides the planning, budgeting, status, performance monitoring, customer interface, and program direction for the Liquid Effluents Program. <u>IMPACTS:</u> TPA M-17 and Consent Order DE-91NM-177 Milestones missed and TPA Article XLVIII, Paragraphs 148/149 Cost, Schedule, and Scope Planning and Reporting not supported.
2300-0	300 Area TEDF SMECO - Operate 300 Area TEDF		Exp	4,325	6,390	Supports minimum safe operation of the 300 Area TEDF. <u>IMPACTS:</u> Either 300 Area facilities would require shutdown or resume discharge of unpermitted liquid effluents to the soil column.
2300-0	300 Area CENRTC SMECO		CE	100	6,490	Same as 300 Area TEDF SMECO
2300-0	340 Facility SMECO - Operate 340 Waste Handling Facility		Exp	3,723	10,213	Supports minimum safe operation of the 340/307 Facility. <u>IMPACTS:</u> Non-operation of the 340/307 Facility would shut down 300 Area Labs and TPA M-44 milestones for core sampling would be missed.
2300-0	200 Area TEDF SMECO - Operate 200 Area TEDF		Exp	4,740	14,953	Supports minimum safe operations of the collection and disposal facilities for 200 Area Plants. <u>IMPACTS:</u> Facilities discharging to the 200 Area TEDF would shut down or resume unpermitted discharge of liquid effluents to the soil.
2300-0	LERF SMECO - Operate LERF		Exp	956	15,909	Provides temporary storage for 242-A Evaporator condensate. <u>IMPACTS:</u> 242-A Evaporator would not operate affecting tank farms operations.

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

FY 1996						
ADS	Description	RL Pri	Fund Type	FY 1996	CUM FY 1996	Justification of Scope/Impact if not funded
2300-0	200 Area ETF SMECO		Exp	8,159	24,068	Supports the safe, compliant operation of the ETF. <u>IMPACTS:</u> Not available to process LERF contents resulting in the shutdown of the 242-A Evaporator.
2300-0	200 Area CENRTC SMECO		CE	100	24,168	Same
2300-0	Miscellaneous Streams - Sup 216 Permit Rqmts		Exp	522	24,690	Implements the Plan and Schedule for Disposal and Regulatory Compliance of Miscellaneous Streams submitted to Ecology in January 1994 as required by the Consent Order. Tasks include development of Best Management Practice, Injection Well registrations, and WAC 173-216 permit submittals. <u>IMPACTS:</u> Consent Order DE 91NM-177 milestones would be delayed. Potential to result in fines and cease discharge orders for these streams impacting PUREX, Tank Farms, U03, 222S, and steam distribution system.
2300-1	W-252 Phase II Streams - Support M-17-00B		Exp	399	25,089	Continues project support to Phase II Stream BAT/AKART Implementation for B-Plant to meet Oct. 1997 milestone. <u>IMPACTS:</u> TPA M-17-00B milestone would be missed.
2300-0	200 Area ETF Processing Oprns - Startup, Compl 1st campaign		Exp	7,260	32,349	Supports the processing of the LERF basin inventory. <u>IMPACTS:</u> Shut down 242-A Evaporator.
2300-0	Add'l Program Mgmt Support -LE Engineering Oversight/ Systems Eng		Exp	420	32,769	Supports systems engineering and waste volume/feed interfaces. <u>IMPACTS:</u> Loss of engineering oversight for overall technical/regulator concerns and interface with site-wide systems engineering activities.
2300-0	340 Facility Upgrades - Conduct of Operations		Exp	1,179	33,948	Process Control System Upgrade, SAR development and HEPA filter upgrade. <u>IMPACTS:</u> Potential degradation of process facility operations and potential loss of facility safety documentation compliance.

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

FY 1996						
ADS	Description	RL Pri	Fund Type	FY 1996	CUM FY 1996	Justification of Scope/Impact if not funded
2300-0	300 Area TEDF Upgrades		Exp	156	34,104	Misc Conduct of Operations upgrades. <u>IMPACTS:</u> Failure to fully embrace conduct of operations philosophy.
2330-0	Project W-302 - 340 Facility 2nd Containment		Exp	1,020	35,124	Bring the facility into RCRA compliance. <u>IMPACTS:</u> By not completing this upgrade, Regulators may declare non-compliance with potential fines and directed requirements.
2300-0	200 Area ETF Future Campaigns/ New Feed Evaluation		Exp	358	35,482	Micro-pilot plant evaluation of existing/new feeds. <u>IMPACTS:</u> Failure to optimize current operations and fully utilize facility capabilities.
2300-0	200 Area ETF Upgrades -Filtration & Piping		Exp	1,218	36,700	Upgrade to assure filtration requirements are achieved. Piping upgrades will enable physical facility acceptance of new feeds. <u>IMPACTS:</u> Inability to accept selected new feeds. Potential for filter failure/plant shutdown.
2300-0	200 Area ETF Upgrades -Filtration & Piping		GPP	2,500	39,200	Same
	FY 96 @ Target Case				39,200	

**LIQUID EFFLUENT
WBS 1.2.2.1**

FY 1996 Program Plan

WHC-SP-1097 Rev 1

FY 1997						
ADS	Description	RL Pri	Fund Type	FY 1997	CUM FY 1997	Justification of Scope/Impact if not funded
2300-0	Program Management Support - Management, Program Admin, Planning, Scheduling, Reporting, Control		Exp	1,653	1,653	Provides the planning, budgeting, statusing, performance monitoring, customer interface, and program direction for the Liquid Effluents Program. <u>IMPACTS:</u> TPA M-17 and Consent Order DE-91NM-177 Milestones missed and TPA Article XLVIII, Paragraphs 148/149 Cost, Schedule, and Scope Planning and Reporting not supported.
2300-0	300 Area TEDF SMECO - Operate 300 Area TEDF		Exp	4,171	5,824	Supports minimum safe operation of the 300 Area TEDF. <u>IMPACTS:</u> Either 300 Area facilities would require shutdown or resume discharge of unpermitted liquid effluents to the soil column.
2300-0	300 Area CENRTC SMECO		CE	50	5,874	Same as 300 Area TEDF SMECO
2300-0	340 Facility SMECO - Operate 340 Waste Handling Facility		Exp	3,727	9,601	Supports minimum safe operation of the 340/307 Facility. <u>IMPACTS:</u> Non-operation of the 340/307 Facility would shut down 300 Area Labs and TPA M-44 milestones for core sampling would be missed.
2300-0	200 Area TEDF SMECO - Operate 200 Area TEDF		Exp	4,550	14,151	Supports minimum safe operations of the collection and disposal facilities for 200 Area Plants. <u>IMPACTS:</u> Facilities discharging to the 200 Area TEDF would shut down or resume unpermitted discharge of liquid effluents to the soil.
2300-0	LERF SMECO - Operate LERF		Exp	963	15,114	Provides temporary storage for 242-A Evaporator condensate. <u>IMPACTS:</u> 242-A Evaporator would not operate affecting tank farms operations.
2300-0	200 Area ETF SMECO		Exp	7,605	22,719	Supports the safe, compliant operation of the ETF. <u>IMPACTS:</u> Not available to process LERF contents resulting in the shutdown of the 242-A Evaporator.
2300-0	200 Area CENRTC SMECO		CE	50	22,769	Same

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

FY 1997						
ADS	Description	RL Pri	Fund Type	FY 1997	CUM FY 1997	Justification of Scope/Impact if not funded
2300-0	Miscellaneous Streams - Sup 216 Permit Rqmts		Exp	384	23,153	Implements the Plan and Schedule for Disposal and Regulatory Compliance of Miscellaneous Streams submitted to Ecology in January 1994 as required by the Consent Order. Tasks include development of Best Management Practice, Injection Well registrations, and WAC 173-216 permit submittals. <u>IMPACTS</u> : Consent Order DE 91NM-177 milestones would be delayed. Potential to result in fines and cease discharge orders for these streams impacting PUREX, Tank Farms, UO3, 222S, and steam distribution system.
2300-1	W-252 Phase II Streams - Support M-17-00B		Exp	326	23,479	Continues project support to Phase II Stream BAT/AKART Implementation for B-Plant to meet Oct. 1997 milestone. <u>IMPACTS</u> : TPA M-17-00B milestone would be missed.
2300-0	200 Area ETF Processing Oprns		Exp	2,723	26,202	Supports the processing of the LERF basin inventory. Contains a productivity challenge of 2,146K which remains to be resolved. <u>IMPACTS</u> : Shut down 242-A Evaporator.
2300-0	Add'l Program Mgmt Support -LE Engineering Oversight/ Systems Eng		Exp	430	26,632	Supports systems engineering and waste volume/feed interfaces. <u>IMPACTS</u> : Loss of engineering oversight for overall technical/regulator concerns and interface with site-wide systems engineering activities.
2300-0	200 Area ETF Upgrades -Filtration & Piping		Exp	468	27,100	Completes prior year GPPs
2300-0	340 Facility Upgrades - Conduct of Operations		Exp	0	27,100	
2300-0	300 Area TEDF Upgrades		Exp	0	27,100	

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

FY 1997						
ADS	Description	RL Pri	Fund Type	FY 1997	CUM FY 1997	Justification of Scope/Impact if not funded
2330-0	Project W-302 - 340 Facility 2nd Containment		Exp	0	27,100	
2300-0	200 Area ETF Future Campaigns/ New Feed Evaluation		Exp	0	27,100	
2300-0	200 Area ETF Upgrades -Filtration & Piping		GPP	0	27,100	
	FY 96 @ Target Case				27,100	

LIQUID EFFLUENT
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FY 1996 Program Plan

WHC-SP-1097 Rev 1

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FY 1996 Program Plan

WHC-SP-1097 Rev 1

4.2 PROGRAM PERFORMANCE BASELINE SCHEDULE

SEE THE FOLLOWING 5 PAGES

WESTINGHOUSE HANFORD COMPANY
Liquid Effluent Program
MYP Schedule

FY 96

Activity	Description	Start	1995	JAN	APR	JUL
LES PROGRAM OFFICE						
1A211010A	PROGRAM MANAGEMENT	1503 D 10/02/95				
1A211010E	PROGRAM PLANNING	1503 D 10/02/95				
1A211010N	PROGRAM CONTROL	1503 D 10/02/95				
1A211020A	SYSTEMS ENGINEERING	1503 D 10/02/95				
1A211020B	TREATABILITY TESTING	1503 D 10/02/95				
200A TEPF (SMECO)						
1A221010A	OPERATE	1503 D 10/02/95				
1A221010B	ENGINEERING SUPPORT	1503 D 10/02/95				
1A221010C	RADIOLOGICAL CONTROL	1503 D 10/02/95				
1A221020A	PWS / PDRS	1503 D 10/02/95				
1A221020B	CORRECTIVE MAINTENANCE	1503 D 10/02/95				
1A221020C	MATERIAL CONTROL	1503 D 10/02/95				
1A221030A	ENVIRONMENTAL MONITORING & SAMPLING	1503 D 10/02/95				
1A221030D	SAFETY	1503 D 10/02/95				
1A221030C	PERMITTING	1503 D 10/02/95				
1A221040A	PROJECT MANAGEMENT / ADMINISTRATIVE SUPPORT	1503 D 10/02/95				
1A221040B	PROCEDURES	1503 D 10/02/95				
1A221040C	ASSESSMENTS	1503 D 10/02/95				
1A221040D	CONDUCT OF OPERATIONS	1503 D 10/02/95				
1A221040E	MISCELLANEOUS SUPPORT ORGANIZATIONS	1503 D 10/02/95				
1A221040F	TRAINING	1503 D 10/02/95				
200A ETF (SMECO)						
1A221020A	OPERATE	1503 D 10/02/95				
1A221020B	ENGINEERING SUPPORT	1503 D 10/02/95				
1A221020C	RADIOLOGICAL CONTROL	1503 D 10/02/95				
1A221020A	PWS / PDRS	1503 D 10/02/95				
1A221020B	CORRECTIVE MAINTENANCE	1503 D 10/02/95				
1A221020C	MATERIAL CONTROL	1503 D 10/02/95				
1A221030A	ENVIRONMENTAL MONITORING & SAMPLING	1503 D 10/02/95				
1A221030D	SAFETY	1503 D 10/02/95				
1A221030C	PERMITTING	1503 D 10/02/95				
1A221040A	PROJECT MANAGEMENT / ADMINISTRATIVE SUPPORT	1503 D 10/02/95				
1A221040B	PROCEDURES	1503 D 10/02/95				
1A221040C	ASSESSMENTS	1503 D 10/02/95				
1A221040D	CONDUCT OF OPERATIONS	1503 D 10/02/95				
1A221040E	MISCELLANEOUS SUPPORT ORGANIZATIONS	1503 D 10/02/95				
1A221040F	TRAINING	1503 D 10/02/95				
STRIP 1						
1A221020A	OPERATE	1503 D 10/02/95				
1A221020B	ENGINEERING SUPPORT	1503 D 10/02/95				
1A221020C	RADIOLOGICAL CONTROL	1503 D 10/02/95				
1A221020A	PWS / PDRS	1503 D 10/02/95				
1A221020B	CORRECTIVE MAINTENANCE	1503 D 10/02/95				
1A221020C	MATERIAL CONTROL	1503 D 10/02/95				
1A221030A	ENVIRONMENTAL MONITORING & SAMPLING	1503 D 10/02/95				
1A221030D	SAFETY	1503 D 10/02/95				
1A221030C	PERMITTING	1503 D 10/02/95				

WESTINGHOUSE HANFORD COMPANY
Liquid Effluent Program
MYPP Schedule

FY 96

Activity	Description	Start	End	1995	1996
1A2212030D	TRITIUM (FROM A&E)	1503 D 10/02/95	1503 D 10/02/95		
1A2212040A	PROJECT MANAGEMENT / ADMINISTRATIVE SUPPORT	1503 D 10/02/95	1503 D 10/02/95		
1A2212040B	PROCEDURES	1503 D 10/02/95	1503 D 10/02/95		
1A2212040C	ASSESSMENTS	1503 D 10/02/95	1503 D 10/02/95		
1A2212040D	CONDUCT OF OPERATIONS	1503 D 10/02/95	1503 D 10/02/95		
1A2212040E	MISCELLANEOUS SUPPORT ORGANIZATIONS	1503 D 10/02/95	1503 D 10/02/95		
1A2212040F	TRAINING	1503 D 10/02/95	1503 D 10/02/95		
1A2212040G	BUDGET PREP. SUPPORT (ADS/MYPP/CHANGE CONTROL	1503 D 10/02/95	1503 D 10/02/95		
200A LERF (SMECO)					
1A2213010A	OPERATE	1503 D 10/02/95	1503 D 10/02/95		
1A2213010B	ENGINEERING SUPPORT	1503 D 10/02/95	1503 D 10/02/95		
1A2213010C	RADIOLOGICAL CONTROL	1503 D 10/02/95	1503 D 10/02/95		
1A2213020A	PWS / PDWS	1503 D 10/02/95	1503 D 10/02/95		
1A2213020B	CORRECTIVE MAINTENANCE	1503 D 10/02/95	1503 D 10/02/95		
1A2213020C	MATERIAL CONTROL	1503 D 10/02/95	1503 D 10/02/95		
1A2213030A	ENVIRONMENTAL MONITORING & SAMPLING	1503 D 10/02/95	1503 D 10/02/95		
1A2213030B	SAFETY	1503 D 10/02/95	1503 D 10/02/95		
1A2213040B	PROCEDURES	1503 D 10/02/95	1503 D 10/02/95		
1A2213040C	ASSESSMENTS	1503 D 10/02/95	1503 D 10/02/95		
1A2213040D	CONDUCT OF OPERATIONS	1503 D 10/02/95	1503 D 10/02/95		
1A2213040E	MISCELLANEOUS SUPPORT ORGANIZATIONS	1503 D 10/02/95	1503 D 10/02/95		
1A2213040F	TRAINING	1503 D 10/02/95	1503 D 10/02/95		
200A ETP OPERATIONS					
1A2214010A	OPERATE	1301 D 11/08/95	1301 D 11/08/95		
1A2214010B	ENGINEERING SUPPORT	1301 D 11/08/95	1301 D 11/08/95		
1A2214010C	RADIOLOGICAL CONTROL	1301 D 11/08/95	1301 D 11/08/95		
1A2214020A	PWS / PDWS	1301 D 11/08/95	1301 D 11/08/95		
1A2214020B	CORRECTIVE MAINTENANCE	1301 D 11/08/95	1301 D 11/08/95		
1A2214020C	MATERIAL CONTROL	1301 D 11/08/95	1301 D 11/08/95		
1A2214030A	ENVIRONMENTAL MONITORING & SAMPLING	1301 D 11/08/95	1301 D 11/08/95		
1A2214030B	SAFETY	1301 D 11/08/95	1301 D 11/08/95		

STRIP 2

WESTINGHOUSE HANFORD COMPANY
Liquid Effluent Program
MYPP Schedule

FY 96

Activity	Description	Dur	Start	1995		1996		
				OCT	JAN	APR	JUL	
1A2214030C	PERMITTING	1361 D	11/06/95 09/28/01	01 OCT 95				
1A2214030D	HAZARDOUS WASTE HANDLING	1361 D	11/06/95 09/28/01					
1A2214040A	PROJECT MANAGEMENT / ADMINISTRATIVE SUPPORT	1361 D	11/06/95 09/28/01					
1A2214040B	PROCEDURES	1361 D	11/06/95 09/28/01					
1A2214040C	ASSESSMENTS	1361 D	11/06/95 09/28/01					
1A2214040D	CONDUCT OF OPERATIONS	1361 D	11/06/95 09/28/01					
1A2214040E	MISCELLANEOUS SUPPORT ORGANIZATIONS	1361 D	11/06/95 09/28/01					
1A2214040F	TRAINING	1361 D	11/06/95 09/28/01					
1A2214040G	EMERGENCY PREPAREDNESS	1361 D	11/06/95 09/28/01					
1A2214050A	READINESS ASSESSMENT	1277 D	10/02/95 09/28/01					
1A2214050B	PERMITTING	1277 D	10/02/95 09/28/01					
1A2214050F	TRAINING	1277 D	10/02/95 09/28/01					
1A2214050H	MAINTENANCE	1277 D	10/02/95 09/28/01					
1A2214050J	PREPARE FOR AND CONDUCT PHASE III TESTING	1277 D	10/02/95 09/28/01					
1A2214060B	PROCEDURES	1369 D	04/15/96 09/28/01					
1A2214060C	ASSESSMENTS	1369 D	04/15/96 09/28/01					
1A2214060D	CONDUCT OF OPERATIONS	1369 D	04/15/96 09/28/01					
1A2214060E	MISCELLANEOUS SUPPORT ORGANIZATIONS	1369 D	04/15/96 09/28/01					
1A2214060F	TRAINING	1369 D	04/15/96 09/28/01					
1A2214060H	MAINTENANCE (OUTAGE)	1369 D	04/15/96 09/28/01					
1A2214060I	OPERATIONS (OUTAGE)	1369 D	04/15/96 09/28/01					
200A UPGRADES								
1A2215010D	ETP PIPING FLEXIBILITY ENHANCEMENT - FY96	625 D	10/02/95 04/01/98					
1A2215020A	FILTRATION SYSTEM UPGRADE - FY96	622 D	10/02/95 09/28/98					
1A2215030A	200 AREA TEDF UPGRADES	0 D	10/02/95 10/02/95					
1A2215030B	200 AREA ETP UPGRADES	1503 D	10/02/95 09/28/01					
300A - 310 FACILITY (SMECO)								
1A2310010A	310 FACILITY PLANT OPERATIONS (SMECO)	1503 D	10/02/95 09/28/01					
1A2310010B	310 FAC. WASTE HANDLING/DISPOSAL	1503 D	10/02/95 09/28/01					
1A2310010C	310 FAC. COGNIZANT ENGINEERING	1503 D	10/02/95 09/28/01					
1A2310010D	310 FAC. SAMPLING ACTIVITIES	1503 D	10/02/95 09/28/01					

WESTINGHOUSE HANFORD COMPANY
Liquid Effluent Program
MYPP Schedule

FY 96

Activity	Description	Dur	Start	1995		1996		
				OCT	JAN	APR	JUL	
1A2310010E	310 FAC. OPERATING PROCEDURES	1503 D	10/02/95 09/28/01					
1A2310020A	310 FAC. PREV. MAINT./CORRECTIVE MAINT. ACTIV	1503 D	10/02/95 09/28/01					
1A2310020B	310 FAC. MAINTENANCE PROCEDURES	1503 D	10/02/95 09/28/01					
1A2310020C	310 FAC. EQUIPMENT/SUPPLIES/CONSUMABLE MATERI	1503 D	10/02/95 09/28/01					
1A2310030A	310 FAC. REGULATORY COMPLIANCE	1503 D	10/02/95 09/28/01					
1A2310040A	310 FACILITY TRAINING	1503 D	10/02/95 09/28/01					
1A2310040B	SUPPORT ORGANIZATION ACTIVITIES - 310 FACILIT	1503 D	10/02/95 09/28/01					
1A2310040C	310 FACILITY ADMINISTRATION	1503 D	10/02/95 09/28/01					
300A - 310 FACILITY (ENHANCEMENTS)								
1A2317010A	ENHANCED OPERATIONS	1503 D	10/02/95 09/28/01					
1A2317010C	310 FACILITY ENHANCED COGNIZANT ENGINEERING	1503 D	10/02/95 09/28/01					
1A2317020A	FACILITY ENHANCEMENTS	1503 D	10/02/95 09/28/01					
1A2317020B	PROJECT SUPPORT	1503 D	10/02/95 09/28/01					
1A2317040A	CONDUCT OF OPERATIONS UPGRADES	1503 D	10/02/95 09/28/01					
1A2317040B	SUPPLEMENTAL TRAINING	1503 D	10/02/95 09/28/01					
300A - 340 FACILITY (SMECO)								
1A2340010A	PLANT OPERATIONS- 340	1503 D	10/02/95 09/28/01					
1A2340010D	WASTE HANDLING/WASTE DISPOSAL- 340	1503 D	10/02/95 09/28/01					
1A2340010C	COGNIZANT ENGINEERING- 340	1503 D	10/02/95 09/28/01					
1A2340010D	ROUTINES/SURVEILLANCES- 340	1503 D	10/02/95 09/28/01					
1A2340010E	OPERATING PROCEDURES- 340	1503 D	10/02/95 09/28/01					
1A2340020A	MAINTENANCE - (SMECO)	1503 D	10/02/95 09/28/01					
1A2340020B	340 EQUIPMENT/SUPPLIES	1503 D	10/02/95 09/28/01					
1A2340020C	340 FAC. - MAINTENANCE PROCEDURES	1503 D	10/02/95 09/28/01					
1A2340030A	REGULATORY COMPLIANCE	1503 D	10/02/95 09/28/01					
1A2340030B	SAFETY DOCUMENTATION- 340	1503 D	10/02/95 09/28/01					
1A2340040A	340 TRAINING	1503 D	10/02/95 09/28/01					
1A2340040B	SUPPORT ORGANIZATION ACTIVITIES - 340 FACILIT	1503 D	10/02/95 09/28/01					
1A2340040C	340 FACILITY ADMINISTRATION	1503 D	10/02/95 09/28/01					
300A - 340 FACILITY (ENHANCEMENTS)								
1A2347010A	ENHANCED OPERATIONS	1503 D	10/02/95 09/28/01					

WESTINGHOUSE HANFORD COMPANY
Liquid Effluent Program
MYPP Schedule

FY 96

Activity	Description	Dur	Start	1995		1996		
				OCT	JAN	APR	JUL	
1A2347010C	340 FACILITY ENHANCED COGNIZANT ENGINEERING	1603 D	10/02/95 09/20/01					
1A2347020A	FACILITY ENHANCEMENTS	1503 D	10/02/95 09/20/01					
1A2347020B	PROJECT SUPPORT	1603 D	10/02/95 09/20/01					
1A2347030A	340 SAFETY ANALYSIS REPORT (SAR)	601 D	10/02/95 09/30/97					
1A2347040A	CONDUCT OF OPERATIONS UPGRADES	601 D	10/02/95 09/30/97					
1A2347040B	SUPPLEMENTAL TRAINING	1603 D	10/02/95 09/20/01					
MISC. STREAMS								
1A2413040A	MISC.STEMS 210 PERMIT APPLICATION	750 D	10/02/95 09/30/98					
1A2413060A	PREPARE BMP REPORT	294 D	10/02/95 12/02/98					
1A2413070A	MISCELLANEOUS STREAMS INVENTORY UPDATE	606 D	04/29/98 09/30/98					
PHASE 2 STREAMS								
1A2502010A	TEDF 210 PERMIT REVISION	622 D	10/02/95 10/29/97					
1A2502030A	DESIGN REVIEW/FACILITY INTERFACES	312 D	10/02/95 12/31/98					
1A2502070A	SUPPORT THROUGH DEF DESIGN & CONSTRUCTION	624 D	10/02/95 10/31/97					
1A2502080B	PROVIDE MGMT/FINANCIAL SUPPORT	601 D	10/02/95 09/30/97					
1A2502100A	READINESS ASSESSMENT	206 D	08/03/98 03/31/97					
PROJECT W-302								
1A2511010B	W-302 340 FACILTY SEC CONTAINMENT	980 D	10/02/95 08/31/98					

**LIQUID EFFLUENT
WBS 1.2.2.1**

FY 1996 Program Plan

WHC-SP-1097 Rev 1

4.3 COST BASELINE BY MONTH

OPERATING EXPENSE - By ADS - By Cost Account - By Month (\$ in 000s)														
RL WBS	WBS TITLE	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
ADS 2300-0 Liquid Effluents														
1.2.2.1.1	Program Office	189.6	170.7	218.0	180.1	180.5	237.5	202.3	202.7	243.3	182.6	202.7	2,633.4	4,843.4
1.2.2.1.1.0001	Program Management	189.6	170.7	218.0	180.1	180.5	237.5	202.3	202.7	243.3	182.6	202.7	258.4	2,468.4
1.2.2.1.1.0002	Program Fees and Misc Charges												2,375.0	2,375.0
1.2.2.1.2	200 Area LEF Operations	1,357.1	1,660.8	2,244.6	1,910.1	1,923.0	2,498.5	1,739.3	1,354.8	1,647.4	1,218.4	1,342.0	1,673.9	20,569.9
1.2.2.1.2.0001	200 Area TEDF SMECO	349.8	314.9	402.4	332.6	332.6	437.2	349.8	349.8	419.7	314.9	349.8	437.2	4,390.7
1.2.2.1.2.0002	200 Area ETF SMECO	609.8	548.8	700.9	579.1	579.1	771.9	619.0	619.0	744.9	552.1	615.6	768.8	7,709.0
1.2.2.1.2.0003	200 Area LERF SMECO	76.2	68.6	87.4	72.3	72.3	95.4	76.2	76.2	91.4	68.6	76.2	95.4	956.2
1.2.2.1.2.0004	200 Area ETF Process Operations	252.6	666.6	958.4	816.4	816.4	1,029.3	608.2	214.6	257.6	193.3	214.6	268.4	6,296.4
1.2.2.1.2.0005	200 Area ETF Enhancements	68.7	61.9	95.5	109.7	122.6	164.7	86.1	95.2	133.8	89.5	85.8	104.1	1,217.6
1.2.2.1.3	300 Area LEF Operations	734.9	661.9	845.4	695.8	695.8	913.9	732.1	732.1	877.9	659.4	732.1	914.6	9,195.9
1.2.2.1.3.0001	300 Area TEDF SMECO	338.5	304.9	389.5	321.7	321.7	422.4	338.5	338.5	405.9	304.9	338.5	422.8	4,247.8
1.2.2.1.3.0002	340 Facility SMECO	290.0	261.3	333.5	273.1	273.1	358.5	287.2	287.2	344.4	258.8	287.2	358.8	3,613.1
1.2.2.1.3.0004	300 Area TEDF Enhancements	12.4	11.2	14.3	11.8	11.8	15.5	12.4	12.4	14.9	11.2	12.4	15.5	155.8
1.2.2.1.3.0005	340 Facility Enhancements	94.0	84.5	108.1	89.2	89.2	117.5	94.0	94.0	112.7	84.5	94.0	117.5	1,179.2

**LIQUID EFFLUENT
WBS 1.2.2.1**

FY 1996 Program Plan

WHC-SP-1097 Rev 1

OPERATING EXPENSE - By ADS - By Cost Account - By Month (\$ in 000s)														
RL WBS	WBS TITLE	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1.2.2.1.4	Liquid Effluents Engineering	37.9	34.2	32.0	26.5	61.3	59.5	47.5	50.0	40.0	26.1	28.3	28.6	471.9
1.2.2.1.4.0004	Miscellaneous Streams	37.9	34.2	32.0	26.5	61.3	59.5	47.5	50.0	40.0	26.1	28.3	28.6	471.9
ADS 2300-0 TOTAL		2,319.5	2,527.6	3,340.0	2,812.5	2,860.6	3,709.4	2,721.2	2,339.6	2,808.6	2,086.5	2,305.1	5,250.5	35,081.1
ADS 2300-1 Phase II Effluent Treatment/Disposal														
1.2.2.1.5	Phase II Effluent Treatment/Disposal	39.5	20.7	26.3	21.8	21.8	28.6	42.7	42.7	52.6	39.8	27.7	34.6	398.8
1.2.2.1.5.0001	Phase II Streams Project W-252	39.5	20.7	26.3	21.8	21.8	28.6	42.7	42.7	52.6	39.8	27.7	34.6	398.8
ADS 2300-1 TOTAL		39.5	20.7	26.3	21.8	21.8	28.6	42.7	42.7	52.6	39.8	27.7	34.6	398.8
ADS 2330-0 Liquid Effluents Future Projects														
1.2.2.1.9	340 Facility Secondary Containment	113.8	102.3	130.7	115.0	115.0	151.3	46.0	46.0	55.1	41.4	46.0	57.5	1,020.1
1.2.2.1.9.0001	Project W-302	113.8	102.3	130.7	115.0	115.0	151.3	46.0	46.0	55.1	41.4	46.0	57.5	1,020.1
ADS 2330-0 TOTAL		113.8	102.3	130.7	115.0	115.0	151.3	46.0	46.0	55.1	41.4	46.0	57.5	1,020.1
LIQUID EFFLUENTS TOTAL PROGRAM		2,472.8	2,650.6	3,497.0	2,949.3	2,997.4	3,889.3	2,809.9	2,428.3	2,916.3	2,167.7	2,378.8	5,342.6	36,500.0

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

OPERATING EXPENSE - By ADS - By Cost Element - By Month (\$ in 000s)													
<i>COST ELEMENT</i>	<i>OCT</i>	<i>NOV</i>	<i>DEC</i>	<i>JAN</i>	<i>FEB</i>	<i>MAR</i>	<i>APR</i>	<i>MAY</i>	<i>JUN</i>	<i>JUL</i>	<i>AUG</i>	<i>SEP</i>	<i>TOTAL</i>
ADS 2300-0 LIQUID EFFLUENTS													
0 - LABOR	1,075.7	1,149.9	1,485.2	1,248.5	1,248.7	1,612.4	1,222.9	1,056.8	1,276.6	956.4	1,062.0	1,326.8	14,721.9
1 - MATERIALS	89.7	83.5	108.0	89.3	89.3	117.4	93.1	92.3	110.7	83.0	92.3	115.4	1,164.0
2 - PURCHASED SERVICES	225.2	205.5	254.4	212.6	225.3	307.0	241.6	235.8	272.9	204.1	228.3	279.4	2,892.1
3 - OTHER CONTRACTORS	46.4	41.8	69.6	75.3	108.0	118.9	70.9	72.3	87.0	50.2	42.2	49.8	832.4
4 - SITE SERVICES	142.1	141.2	186.4	154.0	154.0	203.7	154.0	144.6	173.4	129.4	144.2	179.4	1,806.4
5 - INTERNAL CHARGES	151.6	269.4	409.6	338.4	338.4	445.2	253.9	151.6	181.9	136.4	151.6	2,564.5	5,392.5
6 - IRM	8.8	7.9	10.1	8.3	8.3	12.9	10.3	10.9	13.3	8.4	8.8	16.1	124.1
7 - DEPARTMENTAL OVERHEAD	317.8	341.9	439.5	370.2	370.3	476.9	366.1	313.2	378.1	283.3	314.6	393.0	4,364.9
8 - G&A/CSP	262.4	286.4	377.2	415.9	318.3	414.8	305.4	262.1	314.7	235.1	261.1	326.0	3,779.4
TOTAL ADS 2300-0	2,219.7	2,527.5	3,340.0	2,912.5	2,860.6	3,709.2	2,718.2	2,339.6	2,808.6	2,086.3	2,305.1	5,250.4	35,077.7
ADS 2300-1 PHASE II EFFLUENT TREATMENT/DISPOSAL													
0 - LABOR	27.9	14.8	18.9	15.7	15.7	20.5	30.3	30.3	37.3	28.2	19.8	24.7	284.1
1 - MATERIALS													0.0
2 - PURCHASED SERVICES													0.0
3 - OTHER CONTRACTORS													0.0
4 - SITE SERVICES													0.0
5 - INTERNAL CHARGES													0.0

**LIQUID EFFLUENT
WBS 1.2.2.1**

FY 1996 Program Plan

WHC-SP-1097 Rev 1

OPERATING EXPENSE - By ADS - By Cost Element - By Month (\$ in 000s)

COST ELEMENT		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
6 - IRM														0.0
7 - DEPARTMENTAL OVERHEAD		7.1	3.5	4.4	3.7	3.7	4.8	7.5	7.5	9.3	7.0	4.7	5.9	69.1
8 - G&A/CSP		4.5	2.4	3.0	2.5	2.5	3.3	4.9	4.9	6.1	4.6	3.2	4.0	45.9
ADS 2300-1 TOTAL		39.5	20.7	26.3	21.9	21.9	28.6	42.7	42.7	52.7	39.8	27.7	34.6	399.1
ADS 2330-0 LIQUID EFFLUENTS FUTURE PROJECTS														
0 - LABOR		27.3	24.5	31.3	30.7	30.7	40.5	28.1	28.1	33.6	25.2	28.1	35.1	363.2
1 - MATERIALS														0.0
2 - PURCHASED SERVICES		8.9	8.1	10.3	8.5	8.5	11.2	4.0	4.0	4.8	3.6	4.0	5.0	80.9
3 - OTHER CONTRACTORS		62.1	55.9	71.4	59.0	59.0	77.6							385.0
4 - SITE SERVICES		.6	.6	.7	.6	.6	.8	.6	.6	.7	.6	.6	.8	7.8
5 - INTERNAL CHARGES														0.0
6 - IRM														0.0
7 - DEPARTMENTAL OVERHEAD		7.7	7.0	8.9	8.7	8.7	11.5	8.0	8.0	9.6	7.2	8.0	10.0	103.3
8 - G&A/CSP		7.0	6.3	8.1	7.5	7.5	9.9	5.3	5.3	6.3	4.8	5.3	6.6	79.9
ADS 2330-0 TOTAL		113.6	102.4	130.7	115.0	115.0	151.5	46.0	46.0	55.0	41.4	46.0	57.5	1,020.1

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

CAPITAL EQUIPMENT NOT RELATED TO CONSTRUCTION - By ADS - By Month (\$ 000s)														
RL WBS	WBS TITLE	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
ADS 2300-0 LIQUID EFFLUENTS														
1.2.2.1.2	200 Area ETF Capital Equipment				50						50			100
1.2.2.1.3	300 Area TEDF Capital Equipment				50						50			100
ADS 2300-0 TOTAL		0	0	0	100	0	0	0	0	0	100	0	0	200
ADS 2300-1 PHASE II EFFLUENT TREATMENT/DISPOSAL														
NONE														
ADS 2330-0 LIQUID EFFLUENTS FUTURE PROJECTS														
NONE														

**LIQUID EFFLUENT
WBS 1.2.2.1**

FY 1996 Program Plan

WHC-SP-1097 Rev 1

GENERAL PLANT PROJECT - By ADS - By Month (\$ in 000s)														
RL WBS	WBS TITLE	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
ADS 2300-0 LIQUID EFFLUENTS														
1.2.2.1.2	ETF Filtration System Upgrade									1,000	250			1,250
1.2.2.1.2	ETF Piping Upgrades									1,000	250			1,250
ADS 2300-1 PHASE II EFFLUENT TREATMENT/DISPOSAL														
	None													
ADS 2330-0 LIQUID EFFLUENTS FUTURE PROJECTS														
	None													

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

LINE ITEM - By ADS - By Month (\$ in 000s)														
RL WBS	WBS TITLE	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
ADS 2300-0 LIQUID EFFLUENTS														
NONE														
ADS 2300-1 PHASE II EFFLUENT TREATMENT/DISPOSAL														
NONE														
ADS 2330-0 LIQUID EFFLUENTS FUTURE PROJECTS														
NONE														

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

4.3.1 Fiscal Year 1995 Carryover Funds and Workscope

\$269K	<u>Removal and D&D of the LERF Basin Filtration Testing Skid</u> - Complete filter testing after the LERF basin contents have been processed through the ETF. Funds distributed as follows: \$17K - skid repair, \$17K - skid modification, \$91K decontamination and removal of skid, \$99K 42-day filtration test, and \$45K analysis of results.
200K	<u>Closeout of the HEC Line Item Project</u> - Perform closeout activities for the HEC Line Item which is being extended to FY 1996 due to the delay in the completion of the ETF.
25K	<u>Project W-302 Re-Engineering Study</u> - Complete a new engineering study to consider modifications to the existing Project W-302 scope using the new laboratory mission basis from the Value Engineering Studies completed in July 1995.
50K	<u>ETF/LERF Piping Enhancements</u> - Complete modifications and enhancements to the 200 Area ETF/LERF piping routes to accommodate low-level waste streams which the ETF was not originally intended to treat thereby facilitating better utilization of the facility.
46K	<u>ETF Operability Modifications</u> - Modifications to include addition of compressed air, electrical outlets, safety signs, door keying, etc..
100K	<u>340 Waste Handling Facility Shutdown Plan</u> - Begin the development of the "Road Map" for the shutdown of this facility.
175K	<u>200 Area New Feed Evaluations</u> - Supports identification of on-site and potential off-site feed streams for the ETF, as well as resolution of associated technical concerns.
100K	<u>Performance Based Incentive</u> - Remainder of anticipated \$1,000K PBI established for the early completion of the ETF readiness upon receipt of the facility from the construction contractor.
\$ 965K	Total FY 1995 Carryover

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

4.4 PROGRAM FUNDING REQUIRED

Year	Target (\$000)	Required (\$000)	Short	Work Scope
1996	39,200	40,700	1,500	1,500 - GPP - Support to ETF Filtration and Piping GPPs reduced before engineering estimates completed. Accepted as Productivity Commitment
1997	27,100	38,221	11,121	<p>2,824 Exp - Direct support to ETF operations, accepted as Productivity, yet to be identified.</p> <p>160 Exp - 300 Area TEDF Misc Enhancements</p> <p>1,250 Exp - 340 facility Conduct of Operations improvements delayed.</p> <p>417 Exp - Exp support to Proj W-302.</p> <p>100 CE - ETF & 300 TEDF CE delayed.</p> <p>4,000 GPP - ETF Flexibility and ETF Add'l Radionuclide Separation.</p> <p>2,370 LI - Proj W-302 not supported</p>

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1996 Program Plan

WHC-SP-1097 Rev 1

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Work Breakdown Structure Dictionary	Westinghouse Hanford Company Summary of PSS Overheads Part I – Summary (Dollars in 000's)						FY 1996 MYPP Rev. # 0 31–Aug–95		
Cost Account Number	Cost Account Title SUMMARY OF PSS WBS DICTIONARY FORMS						Proposed Rate: (Rated Service Pool Only)		
SMS WBS Number	SMS Title						Funding Source:		
RL SMS Program Manger	TK TEYNOR						G&A		
Cost Account Manager							SWS		
WHC SMS Program Manager							OST		
Financial Manager	LL POWERS						DOH		
Responsible Analyst	JA SMITH						MGT PRO		
							POOL		
	FY 1996 Approved Funding Full–Time Equivalents (FTEs)			FY 1996 Unfunded Full–Time Equivalents (FTEs)			FY 1996 Baseline Full–Time Equivalents (FTEs)		
TYPE OF FTE	Exempt	Non–Exempt	Bargaining	Exempt	Non–Exempt	Bargaining	Exempt	Non–Exempt	Bargaining
Organizational	33.8	11.2		0.0	0.0		33.8	11.2	0.0
Support	3.0						3.0	0.0	0.0
TOTAL FTEs	36.8	11.2	0.0	0.0	0.0	0.0	36.8	11.2	0.0
COST ELEMENTS	FY 1996 Approved Funding Budget			FY 1996 Unfunded Budget			FY 1996 Baseline Budget		
Labor – Regular		3275.8			138.5			3,414.3	
Labor – Overtime		0.0						0.0	
0 Total Labor		3275.8			138.5			3,414.3	
1 Materials		90.5						90.5	
2 Purchased Services		130.3						130.3	
3 Other Hanford		1.2						1.2	
Subtotal Originated Costs		3497.8			138.5			3,636.3	
4 Site Services		4897.4						4,897.4	
5 Internal Charges		1557.4			36.0			1,593.4	
6 IRM Support		2778.6						2,778.6	
7 Overheads		26.9						26.9	
8 Revenue		(246.8)						(246.8)	
TOTAL DOLLARS		12511.3			174.5			12685.8	

Work Breakdown Structure Dictionary	Westinghouse Hanford Company Projects & Site Services/Program Control Part I – Summary (Dollars in 000's)						FY 1996 MYPP Rev. # 0 31–Aug–95		
Cost Account Number 1J8000	Cost Account Title PSS/PC DOH						Proposed Rate: (Rated Service Pool Only)		
SMS WBS Number 6.12.03	SMS Title PSS/PC DOH						Funding Source:		
RL SMS Program Manger	TK TEYNOR						G&A		
Cost Account Manager	LL POWERS						SWS		
WHC SMS Program Manager							OST		
Financial Manager	LL POWERS						DOH X		
Responsible Analyst	JA SMITH						MGT PRO		
							POOL		
	FY 1996 Approved Funding Full–Time Equivalents (FTEs)			FY 1996 Unfunded Full–Time Equivalents (FTEs)			FY 1996 Baseline Full–Time Equivalents (FTEs)		
TYPE OF FTE	Exempt	Non–Exempt	Bargaining	Exempt	Non–Exempt	Bargaining	Exempt	Non–Exempt	Bargaining
Organizational	3.5	2.0					3.5	2.0	0.0
Support	1.1						1.1	0.0	0.0
TOTAL FTEs	4.6	2.0	0.0	0.0	0.0	0.0	4.6	2.0	0.0
COST ELEMENTS	FY 1996 Approved Funding Budget			FY 1996 Unfunded Budget			FY 1996 Baseline Budget		
Labor – Regular	427.5						427.5		
Labor – Overtime							0.0		
0 Total Labor	427.5			0.0			427.5		
1 Materials	8.0						8.0		
2 Purchased Services	(\$156.3)						(156.3)		
3 Other Hanford							0.0		
Subtotal Originated Costs:	\$279.2			0.0			279.2		
4 Site Services	\$73.3						73.3		
5 Internal Charges	\$7.8						7.8		
6 IRM Support	\$150.6						150.6		
7 Overheads							0.0		
8 Revenue/Passbacks	(\$57.2)						(57.2)		
TOTAL DOLLARS	453.7			0.0			453.7		

SIGNATURES

Financial Analyst: _____ Date: _____

CAM: _____ Date: _____

BASELINE APPROVAL

_____ Date: _____

COST ACCOUNT NARRATIVE SUMMARY

This cost account will fund the Projects and Site Services Director and secretary, Program Control, a representative to the Presidents Accident Prevention Council, Communications support to the division, and funding for miscellaneous activities. The cost account includes travel for the director, training, and office supplies for PSS/PC.

APPROVED FUNDING BUDGET:		FY 1996	
<u>Activity Detailed Description</u>		FTEs	Dollars
Provides indirect funding for PSS Director and secretary as well as overall financial and administration coordination, consolidation of Waste Management Programs, PSS business management, POC for CFO. Includes general assessments, including occupancy, training, office supplies, and travel for director only.			
Total Activity Cost		5.5	594.1
<u>Activity Detailed Description</u>			
Provides for Communications Support to PSS which includes media events, media outreach. Provides funding for travel and multi-media services.			
Total Activity Cost		1.0	106.0
<u>Activity Detailed Description</u>			
Provides funding for the PSS representative to the President's Accident Prevention Council.			
Total Activity Cost		0.1	7.6
<u>Activity Detailed Description</u>			
Miscellaneous funding to cover unanticipated requests to champion or participate in multiple activities when inappropriate to charge direct programs.			
Total Activity Cost			90.5
<u>Activity Detailed Description</u>			
Passbacks to those divisions within PSS that are on fixed price contract. This passback will be based on headcount and will be a percentage to: ETT Pools, HFD, SWD, EP, and SAS Patrol.			
Total Activity Cost			(344.5)
Page Total		6.6	453.7

Part II — .ty Detail (cont')		CAP # 1J£	
APPROVED FUNDING BUDGET:		FY 1996	
Activity Detailed Description		FTEs	Dollars
Total Activity Cost			
Total Page			
Total Approved Funding Originated Budget			279.2
Total Approved Funding Non— Originated Budget			174.5
Total Approved Funding Budget			453.7

Work Breakdown Structure Dictionary	Westinghouse Hanford Company Transportation & Packaging Part I – Summary (Dollars in 000's)						FY 1996 MYPP Rev. # 0 31–Aug–95		
Cost Account Number 1J8040	Cost Account Title T&P Operations						Proposed Rate: (Rated Service Pool Only)		
SMS WBS Number 6.12.03	SMS Title T&P Onsite Services						Funding Source:		
RL SMS Program Manger	TK TEYNOR						G&A		
Cost Account Manager	WF IRVINE						SWS		
WHC SMS Program Manager							OST		
Financial Manager	LL POWERS						DOH x		
Responsible Analyst	T CHAPMAN						MGT PRO		
							POOL		
	FY 1996 Approved Funding Full–Time Equivalents (FTEs)			FY 1996 Unfunded Full–Time Equivalents (FTEs)			FY 1996 Baseline Full–Time Equivalents (FTEs)		
TYPE OF FTE	Exempt	Non–Exempt	Bargaining	Exempt	Non–Exempt	Bargaining	Exempt	Non–Exempt	Bargaining
Organizational	2.2	1.7	0.0	1.0			3.2	1.7	0.0
Support							0.0	0.0	0.0
TOTAL FTEs	2.2	1.7	0.0	1.0	0.0	0.0	3.2	1.7	0.0
COST ELEMENTS	FY 1996 Approved Funding Budget			FY 1996 Unfunded Budget			FY 1996 Baseline Budget		
. Labor – Regular	247.0			113.0			360.0		
. Labor – Overtime							0.0		
0 Total Labor	247.0			113.0			360.0		
1 Materials	17.5						17.5		
2 Purchased Services	15.2						15.2		
3 Other Hanford	1.0						1.0		
Subtotal Originated Costs	280.7			113.0			393.7		
4 Site Services	387.0						387.0		
5 Internal Charges	164.0						164.0		
6 IRM Support	266.8						266.8		
7 Overheads							0.0		
8 Revenue							0.0		
TOTAL DOLLARS	1098.5			113.0			1211.5		

SIGNATURES

Financial Analyst: _____ Date: _____
CAM: _____ Date: _____

BASELINE APPROVAL

_____ Date: _____

COST ACCOUNT N. ATIVE SUMMARY

Provides funding for general department management secretarial, budget analyst, and administrative support for the Transportation and Packaging Department. Includes general assessments including occupancy, dosimetry, telephone, and office supplies.

APPROVED FUNDING BUDGET:

Activity Detailed Description

Provide management and secretarial administrative, budget analyst, support for the T&P organization. Work activities include general function management and administrative support, building administrator, budget analyst, support occupancy and other general assessments, training, relocation, office supplies and other indirect tasks.

Total Activity Cost

FY 1996

FTEs

Dollars

3.9

1098.5

Activity Detailed Description

Total Activity Cost

Activity Detailed Description

Total Activity Cost

Total Page

3.9

1098.5

Total Approved Funding Originated Budget

280.7

Total Approved Funding Non—Originated Budget

817.8

Total Approved Funding Budget

1098.5

Part II - Activity Detail (cont')

1J8040

UNFUNDED BUDGET:		FY 1996	
		FTEs	Dollars
<u>Activity Detailed Description</u>			
Return of a T&P manager from DOE-HQ temporary assignment. This employee will now have the position to market the T&P organization for all types of T&P services to obtain new or expanded businesses from other DOE sites and commercial businesses.			
Total Activity Cost		1.0	113.0
<u>Activity Detailed Description</u>			
Total Activity Cost			
<u>Activity Detailed Description</u>			
Total Activity Cost			
<u>Activity Detailed Description</u>			
Total Activity Cost			
Total Page		1.0	113.0
Total Unfunded Originated Budget		1.0	113.0
Total Unfunded Non-Originated Budget			0.0
Total Unfunded Budget			113.0
Total Approved Funding & Unfunded Budgets			1211.5

Work Breakdown Structure Dictionary	Westinghouse Hanford Company Liquid Effluent Services Part I – Summary (Dollars in 000's)						FY 1996 MYPP Rev. # 0 31–Aug–95		
Cost Account Number 1J8060	Cost Account Title Liquid Effluents O/H						Proposed Rate: (Rated Service Pool Only)		
SMS WBS Number 6.12.3.6	SMS Title Liquid Effluents Services						Funding Source:		
RL SMS Program Manger	TK TEYNOR						G&A		
Cost Account Manager	FT GREEN						SWS		
WHC SMS Program Manager							OST		
Financial Manager	FT GREEN						DOH X		
Responsible Analyst	LK DEERE						MGT PRO		
							POOL		
	FY 1996 Approved Funding Full–Time Equivalents (FTEs)			FY 1996 Unfunded Full–Time Equivalents (FTEs)			FY 1996 Baseline Full–Time Equivalents (FTEs)		
TYPE OF FTE	Exempt	Non–Exempt	Bargaining	Exempt	Non–Exempt	Bargaining	Exempt	Non–Exempt	Bargaining
Organizational	1.0	1.0		0.0	0.0	0.0	1.0	1.0	0.0
Support							0.0	0.0	0.0
TOTAL FTEs	1.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0
COST ELEMENTS	FY 1996 Approved Funding Budget			FY 1996 Unfunded Budget			FY 1996 Baseline Budget		
Labor – Regular	118.0						118.0		
Labor – Overtime							0.0		
0 Total Labor	118.0			0.0			118.0		
1 Materials	5.0						5.0		
2 Purchased Services	16.5						16.5		
3 Other Hanford							0.0		
Subtotal Originated Costs	139.5			0.0			139.5		
4 Site Services	643.3						643.3		
5 Internal Charges	586.2						586.2		
6 IRM Support	487.1						487.1		
7 Overheads							0.0		
8 Revenue							0.0		
TOTAL DOLLARS	1,856.1			0.0			1,856.1		

SIGNATURES

Financial Analyst: LK Deere _____ Date: _____

CAM: FT Green _____ Date: _____

BASELINE APPROVAL

_____ Date: _____

Part II - A

/ Detail

CAP # 1J80

COST ACCOUNT NARRATIVE SUMMARY

Work Activities include general department management and administrative support. General assessments such as occupancy, dosimetry/medical, telephone services, and computer assessments are also funded here. In addition, costs for indirect employee required training and educational reimbursements for the entire organization are included here. Funding is also provided for indirect staff office supplies and business travel.

APPROVED FUNDING BUDGET: Activity Detailed Description - 1J86000000	FY 1996	
	FTEs	Dollars
Provides funding for indirect staff and assessment funds which support indirect staff (86000), financial support staff (86500), and engineering staff (86300 and 86310). Also includes task to collect passbacks and other miscellaneous costs.	2.0	118.0
Total Activity Cost		536.7
Activity Detailed Description - 1J86000100		
Provides assessment pool funding for the 200 Area Liquid Effluent Facilities organization.		
Total Activity Cost		769.6
Activity Detailed Description - 1J86000200		
Provides assessment pool funding for the 300 Area Liquid Effluent Facilities organization.		
Total Activity Cost		549.8
Total Approved Funding Originated Budget.		139.5
Total Approved Funding Non-Originated Budget		1,716.6
Total Approved Funding Budget		1,856.1

Work Breakdown Structure Dictionary	Westinghouse Hanford Company Engineering Testing and Technology Projects Part I – Summary (Dollars in 000's)						FY 1996 MYPP Rev. # 0 31–Aug–95		
Cost Account Number 1J80A0	Cost Account Title Engineering Testing and Technology Projects						Proposed Rate: (Rated Service Pool Only)		
SMS WBS Number 6.12.03	SMS Title						Funding Source:		
RL SMS Program Manger	TK TEYNOR						G&A		
Cost Account Manager	LC BROWN						SWS		
WHC SMS Program Manager							OST		
Financial Manager	LL POWERS						DOH x		
Responsible Analyst	RC BROGDON						MGT PRO		
							POOL		
	FY 1996 Approved Funding Full–Time Equivalents (FTEs)			FY 1996 Unfunded Full–Time Equivalents (FTEs)			FY 1996 Baseline Full–Time Equivalents (FTEs)		
TYPE OF FTE	Exempt	Non–Exempt	Bargaining	Exempt	Non–Exempt	Bargaining	Exempt	Non–Exempt	Bargaining
Organizational	1.0	1.0	0.0				1.0	1.0	0.0
Support	1.0	0.0	0.0				1.0	0.0	0.0
TOTAL FTEs	2.0	1.0	0.0	0.0	0.0	0.0	2.0	1.0	0.0
COST ELEMENTS	FY 1996 Approved Funding Budget			FY 1996 Unfunded Budget			FY 1996 Baseline Budget		
Labor – Regular	194.6						194.6		
Labor – Overtime	0.0						0.0		
0 Total Labor	194.6			0.0			194.6		
1 Materials	7.0						7.0		
2 Purchased Services	9.0						9.0		
3 Other Hanford	0.0						0.0		
Subtotal Originated Costs	210.6			0.0			210.6		
4 Site Services	243.6						243.6		
5 Internal Charges	38.4						38.4		
6 IRM Support	111.1						111.1		
7 Overheads	1.9						1.9		
8 Revenue	–189.6						–189.6		
TOTAL DOLLARS	416.0			0.0			416.0		

SIGNATURES

Financial Analyst: _____ Date: _____
 CAM: _____ Date: _____

BASELINE APPROVAL

_____ Date: _____

Provides business, operational, and management leadership to Engineering Laboratories including general assessments and office supplies.

APPROVED FUNDING BUDGET:

Activity Detailed Description

Provide business, operational and management leadership to Engineering Laboratories and Technology Development personnel.

FY 1996

FTEs

Dollars

Total Activity Cost

3.0

605.6

Activity Detailed Description

Represents overhead charges that are being prorated to Standards Lab and Engineering Lab pools.

Total Activity Cost

Activity Detailed Description

Total Activity Cost

Total Page

Total Approved Funding Originated Budget

Total Approved Funding Non-Originated Budget

Total Approved Funding Budget

Work Breakdown Structure Dictionary	Westinghouse Hanfo. Company Construction Projects Department Part I – Summary (Dollars in 000's)						FY 1996 MYPP Rev. # 0 31–Aug–95		
Cost Account Number 1J80K0	Cost Account Title DOH – CONSTRUCTION PROJECTS						Proposed Rate: (Rated Service Pool Only)		
SMS WBS Number 1.06.00.12.03	SMS Title DOH – PSS						Funding Source:		
RL SMS Program Manger	TK TEYNOR						G&A		
Cost Account Manager	JF ERBEN						SWS		
WHC SMS Program Manager							OST		
Financial Manager	JR PARVIS						DOH X		
Responsible Analyst	SJ STAFEK						MGT PRO		
							POOL		
	FY 1996 Approved Funding Full–Time Equivalents (FTEs)			FY 1996 Unfunded Full–Time Equivalents (FTEs)			FY 1996 Baseline Full–Time Equivalents (FTEs)		
TYPE OF FTE	Exempt	Non–Exempt	Bargaining	Exempt	Non–Exempt	Bargaining	Exempt	Non–Exempt	Bargaining
Organizational	17.0	3.0	0.0	0.0	0.0	0.0	17.0	3.0	0.0
Support							0.0	0.0	0.0
TOTAL FTEs	17.0	3.0	0.0	0.0	0.0	0.0	17.0	3.0	0.0
COST ELEMENTS	FY 1996 Approved Funding Budget			FY 1996 Unfunded Budget			FY 1996 Baseline Budget		
Labor – Regular	1395.9						1395.9		
Labor – Overtime	0.0						0.0		
0 Total Labor	1395.9			0.0			1395.9		
1 Materials	20.0						20.0		
2 Purchased Services	97.4						97.4		
3 Other Hanford	0.2						0.2		
Subtotal Originated Costs	1513.5			0.0			1513.5		
4 Site Services	798.2						798.2		
5 Internal Charges	240.9						240.9		
6 IRM Support	623.7						623.7		
7 Overheads	0.0						0.0		
8 Revenue	0.0						0.0		
TOTAL DOLLARS	3176.3			0.0			3176.3		

SIGNATURES

Financial Analyst: _____ Date: _____
 CAM: _____ Date: _____

BASELINE APPROVAL

_____ Date: _____

COST ACCOUNT 1. NATIVE SUMMARY

This cost account will fund the Construction Projects Director and secretary, the Construction Projects Center of Excellence, Central Projects Systems Financial and Administration activities, training, and miscellaneous activities as identified below in support of all WHC construction projects.

APPROVED FUNDING BUDGET: Activity Detailed Description	FY 1996	
	FTEs	Dollars
A) Director and secretary, Construction Projects Department Director of Construction Projects Department and secretarial services for director plus fixed assessments for all direct funded Construction Projects personnel.	2.0	147.2 1404.9
Total Activity Cost	2.0	1552.1
B) Center of Excellence Activities Management System development, Project procedure systems, Manager/Secretary of Central Project Systems, Construction Site Safety Program integration, project management of internal and external issues, process leadership for Project Management Process/WHC interfacing processes, Accident/Audit Project Management support, and management systems assessments.	9.2	804.3
Total Activity Cost	9.2	804.3
C) Finance and Administration Activities Group management of Resource and Financial Services, Administration and Reporting Systems, financial analyses and speciality resource reporting, projects closeout coordination and accrual, DOH planning, reporting, and control, Construction Project Data Sheet development, project management information system integration, reporting, Project Management database administration, projects staffing, Construction Projects Validation, ICF KH Work Volume Forecast, Health Physics Technician Forecast, and computer coordination.	8.2	713.1
Total Activity Cost	8.2	713.1
F) Training and Misc. Activities Implementation/administration of VPP and EAPC Programs, staff qualification and training.	0.6	54.8 52.0
Total Activity Cost		106.8
Total Page	20.0	3176.3
Total Approved Funding Originated Budget		1513.5
Total Approved Funding Non—Originated Budget		1662.8
Total Approved Funding Budget	20.0	3176.3
Total Approved Funding & Unfunded Budgets	20.0	3176.3

Work Breakdown Structure Dictionary	Westinghouse Hanford Company Safety Analysis and Nuclear Engineering Part I – Summary (Dollars in 000's)						FY 1996 MYPP Rev. # 0 31–Aug–95		
Cost Account Number 1J80M0	Cost Account Title SAFETY ANALYSIS AND NUCLEAR ENGINEERING						Proposed Rate: (Rated Service Pool Only)		
SMS WBS Number 6.12.3.0.0.0	SMS Title PROJECT AND SITE SERVICES DIVISION OVERHEADS						Funding Source:		
RL SMS Program Manger	TK TEYNOR						G&A		
Cost Account Manager	EP DIVINCENZO						SWS		
WHC SMS Program Manager							OST		
Financial Manager	LL POWERS						DOH X		
Responsible Analyst	SM GODFREY						MGT PRO		
							POOL		
	FY 1996 Approved Funding Full–Time Equivalents (FTEs)			FY 1996 Unfunded Full–Time Equivalents (FTEs)			FY 1996 Baseline Full–Time Equivalents (FTEs)		
TYPE OF FTE	Exempt	Non–Exempt	Bargaining	Exempt	Non–Exempt	Bargaining	Exempt	Non–Exempt	Bargaining
Organizational	3.6	1.5	0.0	2.0			5.6	1.5	0.0
Support									
TOTAL FTEs	3.6	1.5	0.0	2.0		0.0	5.6	1.5	0.0
	FY 1996 Approved Funding Budget			FY 1996 Unfunded Budget			FY 1996 Baseline Budget		
COST ELEMENTS									
Labor – Regular	332.8			25.5			358.3		
Labor – Overtime							0.0		
0 Total Labor	332.8			25.5			358.3		
1 Materials	10.0			0.0			10.0		
2 Purchased Services	97.5			0.0			97.5		
3 Other Hanford							0.0		
Subtotal Originated Costs	440.3			25.5			465.8		
4 Site Services	1384.0			0.0			1384.0		
5 Internal Charges	105.1			36.0			141.1		
6 IRM Support	474.3			0.0			474.3		
7 Overheads	0.0			0.0			0.0		
8 Revenue	0.0			0.0			0.0		
TOTAL DOLLARS	2403.7			61.5			2465.2		

SIGNATURES

Financial Analyst: _____ Date: _____
 CAM: _____ Date: _____

BASELINE APPROVAL

_____ Date: _____

COST ACCOUNT NARRATIVE SUMMARY

Provides support enabling the Safety Analysis and Nuclear Engineering (SA&NE) department to develop safety analysis and risk documentation for direct program operations. The SA&NE provides a leadership role throughout the DOE complex with innovative, cost-effective approaches to ensure safety during facility and environmental cleanup operations.

APPROVED FUNDING BUDGET:

Activity Detailed Description		FY 1996	
		FTEs	Dollars
SA&NE MANAGEMENT ACTIVITIES (Department Management)			
Provides control of Safety Analysis & Engineering and Nuclear Engineering operations integrated into direct programs conducting waste management, environmental restoration, and operational activities. Provides leadership role throughout Hanford complex through implementation of innovative techniques and cost effective management.			
Total Activity Cost		2.0	147.8
PROGRAM MANAGEMENT			
Develop program, manage administrative processes and develop procedures.			
Total Activity Cost		1.1	87.5
ADMINISTRATIVE REPORTS			
Compile, analyze and correlate data for required reports, including Award Fee input, NFO's, Critical Items, Monthly Reports and Emergent exercises.			
Total Activity Cost		0.3	10.3
DEPARTMENT ADMINISTRATION			
Management of Voluntary Protection Program (VPP) and assure procedure compliance.			
Total Activity Cost		0.2	8.3
CONTRACTS ADMINISTRATION			
Provides for SA&NE structure to perform administration and execution of SA&NE contracted service support. Function supports direct programs.			
Total Activity Cost		0.3	19.2
Grand Total		3.8	273.1

Part II - A y Detail (cont')		CAP # 1J80'	
APPROVED FUNDING BUDGET:		FY 1996	
Activity Detailed Description		FTEs	Dollars
	ENERGY FACILITIES CONTRACTOR OPERATING GROUPS (EFCOG) Provides support for WHC participation in DOE EFCOG activities. Supports travel, living and expenses while coordinating with other DOE operating contractors and DOE sponsored working groups and committees that support rule making activities.		
	Total Activity Cost	0.4	26.8
Activity Detailed Description	TRAINING (Mandatory and Technical) Provides support for SA&NE personnel mandatory and technical training.		
	Total Activity Cost		77.5
Activity Detailed Description	COMPUTER CODE/MODELING Provides for computer modeling in the areas of nuclear criticality accident analyses, consequence evaluations, hazard analyses, and risk assessments for COSMOS, AICHE, HAZOP, Monte Carlo, etc. Use of this code is essential to applied physics computations and non-destructive methods implementation.		
	Total Activity Cost	0.6	43.7
Activity Detailed Description	SUPPORT OF NATIONAL EFFORTS FOR CRITICALITY SAFETY STANDARDS Supports workgroup efforts in behalf of establishing DOE complex-wide uniformity for criticality safety programs, training requirements, guideline for safety evaluations, method validations, and for documenting methods testing benchmarks.		
	Total Activity Cost	0.3	19.2
Activity Detailed Description			
	Total Activity Cost		
Total Page		1.2	167.2
Total Approved Funding Originated Budget		5.0	440.3
Total Approved Funding Non-Originated Budget			1963.4
Total Approved Funding Budget		5.0	1.7

Part II — Activity Detail (cont')		CAP # 1J80	
UNFUNDED BUDGET: SA&NE MANAGEMENT ACTIVITIES (Department Management)		FY 1996	
Activity Detailed Description		FTEs	Dollars
IROF's	Assumption: Salary for 60 days (WARN Notice)	2.0	25.5
	Assumption: \$18K per FTE Buy out		36.0
	Total Activity Cost		61.5
Activity Detailed Description			
	Total Activity Cost		
Activity Detailed Description			
	Total Activity Cost		
Activity Detailed Description			
	Total Activity Cost		
Activity Detailed Description			
	Total Activity Cost		
Activity Detailed Description			
	Total Activity Cost		
Total Page		2.0	61.5
Total Unfunded Originated Budget		2.0	25.5
Total Unfunded Non-Originated Budget			36.0
Total Unfunded Budget			61.5
Total Approved Funding & Unfunded Budgets			

Work Breakdown Structure Dictionary	Westinghouse Hanford Company Hanford Technical Services Part I – Summary (Dollars in 000's)						FY 1996 MYPP Rev. # 0 31–Aug–95		
Cost Account Number 1J80H0	Cost Account Title HANFORD TECHNICAL SERVICES						Proposed Rate: (Rated Service Pool Only)		
SMS WBS Number 1.06.00.12.03.18.000	SMS Title HANFORD TECHNICAL SERVICES						Funding Source:		
RL SMS Program Manger	TK TEYNOR						G&A		
Cost Account Manager	MR ADAMS						SWS		
WHC SMS Program Manager							OST		
Financial Manager	LL POWERS						DOH X		
Responsible Analyst	A CHACON						MGT PRO		
							POOL		
	FY 1996 Approved Funding Full–Time Equivalents (FTEs)			FY 1996 Unfunded Full–Time Equivalents (FTEs)			FY 1996 Baseline Full–Time Equivalents (FTEs)		
TYPE OF FTE	Exempt	Non–Exempt	Bargaining	Exempt	Non–Exempt	Bargaining	Exempt	Non–Exempt	Bargaining
Organizational	5.5	1.0		0.0	0.0		5.5	1.0	0.0
Support	1.0		0.4				1.0	0.0	0.4
TOTAL FTEs	6.5	1.0	0.4	0.0	0.0	0.0	6.5	1.0	0.4
COST ELEMENTS	FY 1996 Approved Funding Budget			FY 1996 Unfunded Budget			FY 1996 Baseline Budget		
Labor – Regular	560.0			0.0			560.0		
Labor – Overtime							0.0		
0 Total Labor	560.0			0.0			560.0		
1 Materials	23.0			0.0			23.0		
2 Purchased Services	51.0			0.0			51.0		
3 Other Hanford	0.0						0.0		
Subtotal Originated Costs	634.0			0.0			634.0		
4 Site Services	1368.0						1368.0		
5 Internal Charges	415.0						415.0		
6 IRM Support	665.0						665.0		
7 Overheads	25.0						25.0		
8 Revenue							0.0		
TOTAL DOLLARS	3107.0			0.0			3107.0		

SIGNATURES

Financial Analyst: _____ Date: _____

CAM: _____ Date: _____

BASELINE APPROVAL

_____ Date: _____

COST ACCOUNT NARRATIVE SUMMARY

MANAGEMENT OF HTS BEFORE, DURING AND AFTER TRANSITION OF HTS TO SUBCONTRACTOR.

APPROVED FUNDING BUDGET: <u>Activity Detailed Description</u>	FY 1996	
	FTEs	Dollars
MANAGE HTS AND PROVIDE TRANSITION OF HTS SCOPE TO SUBCONTRACTOR. MANAGE CONTRACT AFTER AWARD.	3.0	194.2
Total Activity Cost	3.0	194.2
<u>Activity Detailed Description</u> HTS PROPERTY AND FACILITIES TRACKING AND ACCOUNTING.	1.3	96.0
Total Activity Cost	1.3	96.0
<u>Activity Detailed Description</u> HTS FINANCIAL SUPPORT	1.4	103.0
Total Activity Cost	1.4	103.0
<u>Activity Detailed Description</u> HTS TECHNICAL REVIEW, TASK ORDER MANAGEMENT, PROCEDURE TRANSITION, BU MANAGEMENT AND REGULATORY LIABILITIES MANAGEMENT, PROVIDE ADVISORY SCIENTIST.	1.4	100.8
Total Activity Cost	1.4	100.8
<u>Activity Detailed Description</u> HTS QA OVERSIGHT OF SUBCONTRACT, HTS PROCEDURES, SAFETY AND INSPECTIONS.	0.9	66.0
Total Activity Cost	0.9	66.0
Page Total	7.9	560.0

Part II — A y Detail (cont')		CAP # 1J8C	
APPROVED FUNDING BUDGET:		FY 1996	
Activity Detailed Description	FTEs	Dollars	
MATERIAL COSTS SUCH AS OFFICE SUPPLIES, MATERIAL AND EQUIPMENT, EQUIPMENT MAINTENANCE, TRAINING, TRAVEL,		23.0	
Total Activity Cost		23.0	
Activity Detailed Description			
COPIER CONTRACT, EDUCATION REIMBURSEMENT, PROFESSIONAL AND TECHNICAL SOCIETIES.		51.0	
Total Activity Cost		51.0	
Activity Detailed Description			
(4) SITE SERVICES		1368.0	
Total Activity Cost		1368.0	
Activity Detailed Description			
(5) INTERNAL CHARGES		415.0	
Total Activity Cost		415.0	
Activity Detailed Description			
(6) IRM SUPPORT		665.0	
(7) OVERHEADS		25.0	
Total Activity Cost		690.0	
Total Page		2547.0	
Total Appro' Funding Originated Budget		634.0	
Total Appro' Funding Non—Originated Budget		3.0	
Total Approved Funding Budget		637.0	

Work Breakdown Structure Dictionary	Westinghouse Hanford Company PSS SUMMARY												FY 1996 MYPP Rev. # 0			
	Part IV -- Department Overhead Rate Calculation Worksheet															
	FY 1996												(a)	(b)	(c)	(d)
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	AVG. DIRECT STAFF	AVG. LABOR RATE	REALIZATION HOURS	DIRECT LABOR (\$000)
DIRECT STAFF*																
EXEMPT	516	514	512	507	505	502	500	496	493	491	489	481	501	41.95	1820	38,213
NONEX	76	75	74	74	74	74	74	73	73	73	73	71	74	22.51	1820	3,018
BARGAINING UNIT	60	60	60	60	60	60	60	60	60	60	60	60	60	33.33	1820	3,640
EX TEMP	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	1820	0
NE TEMP	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	1820	0
BU TEMP	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	1820	0
EXEMPT (NON PATROL)	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	81	40.03	1820	5,879
NONEX (NON PATROL)	22.2	22.2	22.2	22.2	22.2	22.2	22.2	22.2	22.2	22.2	22.2	22.2	22	21.46	1820	867
BARGAINING UNIT (NON PATROL)	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	16	30.22	1820	853
NONEX TEMP (NON PATROL)	5	5	5	5	5	5	5	5	5	5	5	5	5	10.79	1000	54
EXEMPT (PATROL)	61	61	61	61	61	61	61	61	61	61	61	61	61	40.03	1820	4,444
NONEX (PATROL)	3	3	3	3	3	3	3	3	3	3	3	3	3	21.46	1820	117
BARGAINING UNIT (PATROL)	138.7	138.7	139	139	139	139	139	139	139	139	139	139	139	25.05	1739	6,042
NONEX PT (PATROL)	1	1	1	1	1	1	1	1	1	1	1	1	1	21.46	1456	31
Less SAS Patrol													961			(10,635)
PROJECTED DIRECT OVERTIME \$s																0
TOTAL DOH BUDGET POOL																17,491
DIRECT LABOR BASE																52,523
RATE (POOL/BASE)																33.3%

1. 1J8000 453.7
2. 1J8040 1098.5
3. 1J8060 1856.1
4. 1J80A0 416.0
5. 1J80K0 3176.3
6. 1J80M0 2403.7
7. 1J80PO 4980.0 [WBS Dictionaries are included in 6.6.1 SSPP of \$7711.0K]
8. 1J80HO 3107.0

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