

FY 1995 Multi-Year Program Plan Approval Sheet

LIQUID EFFLUENT/
HANFORD ENVIRONMENTAL COMPLIANCE
WBS 1.2.2.1 and 1.2.2.2

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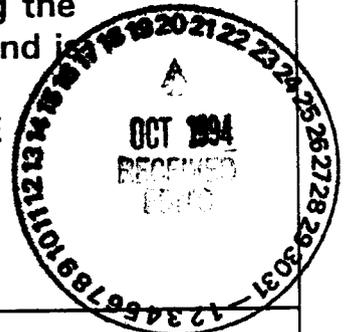
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LIQUID EFFLUENT
WBS 1.2.2.1

Table of Contents

1.0 PROGRAM OVERVIEW

- 1.A Program Vision and Mission
- 1.B Program Mission Strategy
 - 1.B.1 Technical Function and Requirements
 - 1.B.2 Program Objectives
- 1.C Program Plan Assumptions
- 1.D Program Issues and Constraints

2.0 PROGRAM BASELINES

- 2.A WBS Information
 - 2.A.1 WBS Structure
 - 2.A.2 WBS Dictionary
- 2.B Responsibility Assignment Matrix
- 2.C Program Logic Diagrams
- 2.D Program Master Baseline Schedule (PMBS)
- 2.E Program Performance Baseline Schedule (PPBS)
- 2.F Milestone List
- 2.G Milestone Description Sheets
- 2.H Program Cost Baseline Summary by Year
- 2.I Basis of Estimate
- 2.J Waste Type Data
- 2.K Planned Staffing (FTEs)
- 2.L Building Blocks

WHC-SP-1097

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1995 MYPP

- 3.0 FISCAL YEAR WORK PLAN (FYWP)
 - 3.A Cost Estimate Baseline by Month
 - 3.A.1 Program Element - Operating Expense
 - 3.A.2 Cost Element - Operating Expense
 - 3.A.3 CENRTC
 - 3.A.4 General Plant Projects
 - 3.A.5 Line Item
 - 3.B Program Funding Required
 - 3.C FY 1994 Program Carryover

LIQUID EFFLUENT

WBS 1.2.2.1

FY 1995 MYPP

1.A. Program Vision/Mission

Program Vision

The vision of the Liquid Effluent Program is to provide integrated liquid effluent management to support the Hanford mission.

Program Mission

The program mission is to eliminate the use of the soil column for liquid effluent treatment and to manage current and future liquid effluent streams in a safe, responsible, cost effective and legally compliant manner. This is achieved through planning and integration, public and stakeholder interaction, definition of requirements for generators and provision of timely treatment, storage, disposal capability, and waste minimization of waste streams where applicable.

Successful achievement of these functions will result in:

- 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 this mission, the Liquid Effluent Program is organized into the following elements: (1) Program Management, (2) 200 Area ETF Operations, (3) 300 Area TEDF Operations, and (4) Liquid Effluent Advanced Engineering. The individual missions of each of these elements follows:

Program Management

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

1.A-1

MHC-SP-1097

LIQUID EFFLUENT WBS 1.2.2.1

FY 1995 MYPP

1.A. Program Vision/Mission

Program Management and Administration

The mission of this activity is to provide overall coordination, direction and customer interface for the activities in the Liquid Effluent Program. Administrative support is provided for program documentation, funds management, scheduling, and reporting.

Interfaces with other WHC Programs

- Tank Waste Remediation System - The 200 Area ETF will provide essential treatment to the 242-A Evaporator so additional control of waste tank volumes can continue. The 340 facility receives PNL laboratory waste which enables them to continue operating and provide TWRS with sample analysis support. Several tank farm effluent streams will discharge to the 200 Area TEDF.
- 300 Area Facilities - Liquid effluent streams in the 300 Area feed the 300 Area TEDF. Once the process trenches are closed, 300 Area facilities will be dependent on the 300 Area TEDF for continued operations.
- Spent Nuclear Fuels - N/K Basins, miscellaneous stream interface
- Transition Projects - PFP, B Plant and PUREX effluent streams feed to the 200 Area TEDF
- Analytical Services - Critical dependence for sampling and analysis services
- Solid Waste - 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 282 E and W Powerhouses discharge waste to the 200 Area TEDF.

LERF Operations

The mission of the Liquid Effluent Retention Facility (LERF) is to treat and store the 242-A Evaporator process condensate until such time that it can be processed by the 200 Area Effluent Treatment Facility. The date to begin operations of the ETF is June 1995. Beginning in FY 1996, this workscope will be covered under the 200 Area ETF Operations.

1.A-2

MHC-SP-1097

LIQUID EFFLUENT

WBS 1.2.2.1

FY 1995 MYPP

1.A. Program Vision/Mission

200 Area ETF Operations

The mission of the 200 Area ETF Operations is to provide safe, cost effective and environmentally sound design review, construction review, readiness review, startup testing, and continued operations of all 200 Area effluent treatment facilities. The scope of this effort currently includes:

- Project C-018H, 200 Area Effluent Treatment Facility
- Project W-049H, 200 Area Treated Effluent Disposal Facility (TEDF)
- Project W-291H, 200 Area BAT/AKART Implementation

200 Area ETF Operations (C-018H)

In April 1989, the 242-A Evaporator was placed in temporary standby because of a concern that past Hanford Site waste management and chemical processing activities may have generated listed waste as defined by the *Resource Conservation and Recovery Act (RCRA)* (1976). These potentially listed wastes are currently stored in double-shell tanks (DST) and are processed subsequently through the 242-A Evaporator to reduce the waste volume stored in the DSTs. The processing of the waste in the 242-A Evaporator produces a concentrated waste, which is returned to the DSTs, and a process condensate (PC) stream, which was directly transferred to a soil column disposal site. It has been determined that the DSTs contain listed wastes, thus the PC is a listed waste via the "derived from" rule and must be managed in accordance with RCRA. Additionally, the level of ammonia in the 242-A Evaporator PC is high enough to make this discharge a dangerous waste according to WAC 173-303 (Ecology 1989) criteria.

The operation of the 242-A Evaporator is vital to supporting waste management and disposal activities, facility operations and standby conditions, and conducting the Hanford Site environmental restoration mission. It is not possible to support many Tri-Party Agreement commitments related to such activities if the evaporator is not operating.

The "242-A Evaporator/PUREX Plant Condensate Treatment Facility (Effluent Treatment Facility)" (Project C-018H) is being constructed to provide effluent treatment and disposal capability

1.A-3

WHC-SP-1097

LIQUID EFFLUENT

WBS 1.2.2.1

FY 1995 MYPP

1.A. Program Vision/Mission

required to support the continued operation of the 242-A Evaporator and to process the stored evaporator effluents in the LERF Basins.

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 filter will filter particles to 1 micron diameter. After filtration, the waste stream is acidified to convert bicarbonate ions to carbon dioxide which can be stripped from solution. 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 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 to the ETF for additional treatment prior to disposal.

The ETF will treat the effluent to required discharge levels, however, the process can not remove tritiated water with current economically achievable technology. The State of Washington Department of Ecology (Ecology) has voiced their concern that the discharge of tritiated water to the soil column may not be acceptable to the public during the WAC 173-216 State Waste Discharge permitting process. Ecology is requesting that DOE consider the pursuit of research to develop treatment technology to remove low concentrations of tritium (6,300,000 pico curies/liter) from large volumes of water (150 gallons/minute). Ecology would like DOE to continue to fund research and development on technologies such as the Pacific Northwest Laboratory's membrane tritium removal technology and other promising technologies which may be used for high-volume/low-concentration tritium removal. Further, Ecology thinks that perhaps this type of technology could be used to clean-up the groundwater plume that is emanating from the 200 East Area. A new Tri-Party Agreement

1.A-4

WHC-SP-1097

LIVID EFFLUENT

WBS 1.2.2.1

FY 1995 MYPP

1.A. Program Vision/Mission

milestone M-26-05 has been approved which includes the preparation and submission of a comprehensive tritium technology report with yearly updates.

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.

Operation of the ETF is required in order to support the removal of Land Disposal Restricted waste and residues from the LERF basins. This requirement is defined both in the TPA and the State Waste Discharge Permit Program Consent Order. A RCRA Part B operating permit application has been prepared and submitted to Ecology for approval. The current strategy approved by the regulators will combine each of the ETF, LERF, and 242-A Evaporator Part B Permit applications into one overall Part B Permit.

Completion of the Effluent Treatment Facility is required by June 1995 in order to support the TPA major milestone M-17-00A to "complete liquid effluent treatment facilities/upgrades for all Phase I streams". A Delisting Petition, required to allow the disposal of the ETF effluent, has been prepared and submitted to the EPA for approval.

The ETF project will provide disposal via a State Approved Land Disposal Structures (SALDS). The disposal site and structure will be approved by the DOE and Ecology and permitted under the *State Waste Discharge Permit Program* (WAC 173-216). The SALDS for the ETF will consist 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 application has been prepared and submitted to Ecology for approval.

200 Area TEDF Support (W-049H)

The mission of the 200 Area Treated Effluent Disposal Facility (200 Area TEDF), Project W-049H, is to provide the collection and disposal system necessary to transport 200 Area Phase I waste streams meeting BAT/AKART requirements (except 242-A Evaporator Process Condensate, PUREX Process Distillate Discharge, and PUREX Ammonia Scrubber Distillate) to a single permitted soil column disposal site. In an effort to dry up 200 West Area effluent flows, the 200 Area TEDF also includes the collection and disposal of three Phase II (284-W Power Plant, 242-S Evaporator Steam Condensate and T Plant Laboratory Wastewater) wastewater streams. This activity mission is driven by the TPA Milestone M-17-08, "Initiate full scale hot operations for '200 Area Treated Effluent Disposal

1.A-5

WHC-SP-1097

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1995 MYPP

1.A. Program Vision/Mission

'Facility' (Project W-049H), with permitted disposal of effluent to either the soil column or surface water." Further it supports the TPA interim milestones established in 1992 for the cessation of effluent discharges to the existing ditches, cribs, and ponds for the 17 Phase I and Phase II streams scoped to discharge into the 200 Area TEDF by June 1995 by providing the permitted alternative disposal facility for those streams at that time.

Although Phase II compliance calls for the execution of BAT/AKART upgrades by October 1997, owing to the close proximity to Phase I streams earmarked for discharge into the 200 Area TEDF, the compliance dates for the three West Area Phase II waste streams were set to meet the earlier June 1995 compliance date. It has been decided to use the 200 Area TEDF as a means to collect and dispose of six Phase II waste streams covered under Project W-252. While integrating into the overall discharge management strategy, Project W-252 waste streams are funded entirely separately from Project W-049H and maintain an October 1997 TPA compliance date.

The HWVP wastewater and the 242-A-81 Water Services Building (WSB) wastewater are streams that did not exist and, therefore, were not identified in the original definition of Phase I and II streams. The 242-A-81 WSB facility has been constructed to support the 242-A Evaporator. Construction of the HWVP has been delayed until after 1999. Its wastewater stream will be connected to the 200 Area TEDF before HWVP operations start. Also, although originally included in Project W-049H, the privatization and decommissioning of the 2724-W Laundry facilities has ceased discharge of that waste stream and removed the scope from the project.

Under the concept of the 200 Area TEDF, each facility discharging to the sewer system must comply with soil column discharge limits that will be 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 and is being integrated with the completion of the W-049H project. Waste Certification Plans have been developed with each generator to define the criteria each stream must meet prior to discharging to the TEDF pipeline.

1.A-6

WHC-SP-1097

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1995 MYPP

1.A. Program Vision/Mission

200 Area BAT/AKART (W-291H)

The mission of this activity is to implement the BAT/AKART as defined in the Project W-049H Wastewater Engineering Report for six of the effluent streams that could not otherwise realistically expect to obtain the necessary funding in time to meet the applicable June 1995 Tri-Party Agreement Milestones, M-17-00A, M-17-08B, M-17-11, M-17-19, M-17-38, M-17-41, M-17-42, and M-17-43, for implementing BAT/AKART and ceasing discharges to the existing soil column disposal sites. The Hanford Environmental Compliance (HEC) Line Item change request incorporating this project as an additional HEC Line Item FY 93 Subproject was approved by the Secretary of Energy on June 21, 1993. The project has been included in HEC via a Congressional Approval Notification received in September 1993. The effluent streams included in this program are:

- T Plant Wastewater
- T Plant Lab Wastewater
- UO₃ Plant Process Condensate
- UO₃/U Plant Wastewater
- 284-W Power Plant Wastewater
- 2101-M Laboratory Wastewater

300 Area TEDF Operations

The mission of the 300 Area TEDF Operations activity is to provide safe, cost effective, and environmentally sound design, construction and readiness reviews, startup testing and continued operations of all 300 Area effluent treatment facilities. The scope of this effort currently includes:

- Project L-045H, "300 Area Treated Effluent Disposal Facility"
- operations and maintenance of 300 Area TEDF
- upgrades and operations of the 340/307 Facilities (Projects W-345 and W-353)
- operations and monitoring of the 300 Area Process Trenches until the 300 Area TEDF is operational at which time discharge to the trenches will end
- Project L-070, "300 Area Process Sewer Piping System Upgrade"

1.A-7

MHC-SP-1097

LIQUID EFFLUENT

WBS 1.2.2.1

FY 1995 MYPP

1.A. Program Vision/Mission

300 Area TEDF Operations (L-045H)

The mission of the "300 Area Treated Effluent Disposal Facility (300 TEDF)" (Project L-045H) is to provide a system for the continuous treatment and disposal of liquid effluents from the 300 Area which currently are discharged to the 300 Area Process Trenches. This project is being funded as part of the Hanford Environmental Compliance Line Item.

The 300 Area Process Trenches are designed for the disposal of up to 3,000,000 gallons/day of process water from 62 streams from facilities and laboratories located in the 300 Area of the Hanford Site. The two trenches, which were put into operation in 1975, are located in the northern part of the 300 Area. The trenches use percolation of the process water into the soil column as the treatment and disposal method. In the past, these trenches received hazardous waste. Effective February 1, 1985, administrative controls were initiated to eliminate discharges of hazardous wastes into the trenches. Currently, there is only one trench capable of receiving discharges and the major discharge entering that trench is cooling water. Once the 300 Area TEDF is operational, discharge to the trench will be terminated. As a result of negotiations among DOE, WDOE, and EPA, administrative controls are in place to control flow to 325 gallons per minute (468,000 gallons per day). In addition, the flow minimization activities have reduced the number of generators which discharge to the trenches from 62 to 38 and reduced the flow rate to below the regulator limit of 325 gallons per minute.

In the Plan and Schedule, the 300 Area process sewer was identified as a Phase I stream for high priority implementation of an alternative treatment and disposal method. The strategy included preparation of detailed stream characterization, evaluation of the Best Available Technology (BAT) economically achievable, and implementation of the proposed BAT with a permitted discharge. An Expedited Response Action was performed in 1992 to minimize the contaminated materials existing in the active portions of the trenches while a treatment facility was being designed and constructed.

The existing 24 inch process sewer line will be intercepted just upstream of the existing process trenches and rerouted to a collection sump and lift station. The lift station sump pumps will transfer the process sewer flow approximately 3,500 feet 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 proposed as "BAT" in the NPDES permit application includes iron co-precipitation for removal of heavy metals, thiol functional ion

1.A-8

WMC-SP-1097

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1995 MYPP

1.A. Program Vision/Mission

exchange as a "polishing column" for maximizing mercury removal, and UV/peroxide oxidation for destruction of organics and cyanide. The treatment facility is required to become operational by December 1994. This requirement is defined in the Tri-Party Agreement under interim milestone M-17-09.

The design of the treatment facility was developed by the Westinghouse Hanford Company (WHC) and its subcontractor CH2M Hill. After treatment, the effluent will be 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 will be used to retain diverted flows until a determination can be made for final disposition based on sampling results.

340/307 Facility Operations

The mission of the 340/307 Facility is to accumulate and provide interim storage for Tank Waste Analysis effluents generated by Pacific Northwest Laboratory (PNL) 300 Area Laboratories and provide online monitoring of the 300 Area Retention Process Sewer to assure protection of the environment prior to being sent to the 300 Area TEDF.

300 Area Process Trench Operations

The 300 Area Process Trenches are operated by the 300 Area Liquid Effluent Facilities for the disposal of 300 Area effluents. These trenches will be removed from service in December 1994 with the operation of the 300 Area TEDF.

Project L-070, "300 Area Process Sewer Upgrades"

The 300 Area process sewer piping system will be replaced with a modern system as part of Project L-070 in the FY 1997 timeframe.

Liquid Effluent Advanced Engineering

The mission of the Liquid Effluent Advanced Engineering activity is to assist in development of long-range plans, perform engineering evaluations, investigate new feeds to treatment plants, and

1.A-9

WHC-SP-1097

LIQUID EFFLUENT

WBS 1.2.2.1

FY 1995 MYPP

1.A. Program Vision/Mission

integrate future liquid effluent projects into the existing liquid effluent treatment facilities and infrastructures. This scope currently includes:

- remaining Interim Compliance activity,
- Phase II Stream BAT/AKART (Project W-252),
- Miscellaneous Streams,
- advanced engineering support to 200 and 300 Area Effluent Treatment Facilities,
- oversight/utilization of the Micro Pilot Plant, and
- 340 Facility Containment and Leak Detection (Project W-302)

Interim Compliance

As an interim compliance measure prior to fulfilling milestone M-17 of the Tri-Party Agreement, the Interim Compliance Program is required to fulfill the requirements of Consent Order DE-91NM-177 for the 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 for Phase I, and October of 1997 for Phase II streams, or to have those discharges appropriately permitted. In addition, milestone M-17-13-A requires the assessment of potential impacts to the groundwater from the continued interim discharge of the Phase I and Phase II streams. These impact assessments are intended to determine if these discharges could have immediate adverse effects which should not be allowed. Completion of these assessments and preparation of properly executed WAC 173-216 Permit applications requires the collection of quality effluent characterization data. This is being accomplished via the preparation and implementation of Sampling and Analyses Plans. This activity will end in FY 1995 for all activity except support for LEMIS which will be funded in the 200 Area ETF Operations.

Phase II Streams (W-252)

The Phase II Liquid Effluent Program was established to implement Best Available Technology/All Known, Available and Reasonable Treatment (BAT/AKART) for the nine remaining Phase II wastewater streams (those not part of Project W-049H), by October 1997, as required by the TPA Milestone M-17-00B, "Complete Implementation of Best Available Technology/All Known, Available and Reasonable Treatment (BAT/AKART) for all Phase II Liquid Effluent Streams at the Hanford Site". A FY 1995 line item, Project W-252, has been identified to provide BAT/AKART treatment and disposal for seven wastewater streams in the 200 Area and one each in the 100 and 400 Areas.

1.A-10

MHC-SP-1097

LIQUID EFFLUENT

WBS 1.2.2.1

FY 1995 MYPP

1.A. Program Vision/Mission

The 200 Area Phase II effluent streams include the 241-AY/AZ Steam Condensate, the 242-A Evaporator Cooling Water, the 242-A Evaporator Steam Condensate, the 241-A Tank Farm Cooling Water, the 244-AR Vault Cooling Water, the 284-E Powerplant Wastewater, and the B Plant Cooling Water. The 200 Area streams will be treated at the generators as determined necessary and will be collected for disposal. Present planning has the 200 Area Phase II streams discharging to the 200 Area TEDF transfer pipeline to be further transported to the 200 Area TEDF disposal site after BAT/AKART is implemented. At this time the 241-AY/AZ Steam Condensate is discharging to the double-shell tanks and will therefore not be included in any further Phase II program efforts.

The non-200 Area streams are the 183-D Filter Backwash and the 400 Area Secondary Cooling Water. Because of the geographic locations, these wastewater streams will be handled independently. The 183-D Filter Backwash has been deleted from the project as RL has approved the 183-D De-Activation Plan. The 400 Area Secondary Cooling Water BAT/AKART was identified as no action required.

In the Ecology Consent Order No. DE 91NM-177, DOE committed to prepare and submit WAC 173-216 State Waste Discharge permit applications for the continued discharge of these streams to their existing disposal sites on an interim basis until BAT/AKART is implemented. The applications were submitted in FY 1994.

200 Area ETF Liquid Effluent Advanced Engineering Support

The primary mission of this subactivity is to provide the long-range engineering support for the Liquid Effluent Program in support of the 200 Area ETF. The scope includes investigating future waste streams to determine the suitability of the 200 Area ETF to process these streams. This would include the performance of treatability tests and determination of permitting and operational viability. This subactivity will also include managing future projects supporting the Liquid Effluent mission in the 200 Area.

300 Area TEDF Liquid Effluent Advanced Engineering Support

The primary mission of this subactivity is to provide the long-range engineering support for the Liquid Effluent Program in support of the 300 Area. The scope includes investigating future waste streams to determine the suitability of the 300 Area TEDF to process these streams and possibility of privatizing the facility and connection to the City of Richland Publicly Owned Treatment Works (POTW) in the future. This subactivity will also include managing future projects supporting the

1.A-11

MHC-SP-1097

LIQUID EFFLUENT

WBS 1.2.2.1

FY 1995 MYPP

1.A. Program Vision/Mission

Liquid Effluent mission in the 300 Area such as Project W-302 which will design and construct a replacement facility for the 340 Facility.

Miscellaneous Streams

In October 1991, the DOE and Ecology completed negotiations to establish new liquid effluent commitments for a WAC 173-216 Consent Order No. DE 91NM-177, February 1992. Among other things, conditions were established for the Miscellaneous liquid effluent streams. A Miscellaneous stream is defined as an effluent stream which is not one of the originally identified 33 Phase I and Phase II streams. These conditions required certain actions as follows to ensure these streams are in full compliance with state regulations:

- A revised "Inventory of Disposal Sites for Miscellaneous Streams" was submitted to Ecology in August 1992.
- A plan which includes an overall regulatory strategy, methodology, and schedule for identification and evaluation of all Miscellaneous streams was prepared in September 1992.
- A plan and schedule for disposition and regulatory compliance for all remaining Miscellaneous Streams was prepared and submitted for ecology approval in January 1994.

The Miscellaneous Streams' mission is to assure full regulatory compliance of all liquid effluent streams which are not included within the original 33 Phase I and Phase II streams.

- WAC 173-216 Permit applications or other actions were submitted and completed for eleven streams identified in table 4 of Consent Order DE 91NM-177 in June 1994.

Micro Pilot Plant

A micro pilot plant will be established and operated at 1706KEL suitable for testing permit exempt quantities of liquid feed streams, scale will be such that testing can be performed under treatability exclusion provisions of WAC Testing frequency. It will remain dynamic, and subject to needs for support of 200 Area Liquid Effluent Treatment Facility startup and operations, and/or other feed streams as identified by Liquid Effluent Advanced Engineering (LEAE).

1.A-12

WHC-SP-1097

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1995 MYPP

1.B. Program Mission Strategy

In March 1987, DOE Operations Office, Richland issued 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 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.

Using the characterization data, a two-phased prioritization system (Phase I and Phase II) was developed to determine stream priority and establish the implementation schedule. Phase I streams are considered higher priority and are scheduled first. The following specific criteria were used to identify Phase I streams:

- Criterion 1, Radionuclide Concentration - The effluent contains radionuclides in excess of DOE Order 5400, Derived Concentration Guide (DCG) values
- Criterion 2, Hazardous Waste Characteristics - The effluent exceeds WAC 173-303 hazardous waste threshold levels
- Criterion 3, Reportable Quantity or Listed Waste - The effluent released has a potential to contain a Comprehensive Response, Compensation, and Liability Act (CERCLA) reportable quantity (RQ) of a hazardous constituent or has the potential to contain a hazardous waste listed in WAC 173-303
- Criterion 4, Disposal Facility Life - The facility mission life exceeds the minimum estimated life of the disposal site.

1.B-1

WMC-SP-1097

LIQUID EFFLUENT

WBS 1.2.2.1

FY 1995 MYPP

1.B. Program Mission Strategy

Each stream was evaluated with respect to each of the prioritization criteria and assigned a Phase I ranking if currently available data indicated that chemical or radioactive substances in the effluent exceeded or potentially exceeded the specific quantitative levels. Assignment of a Phase I for any of the criteria results in the stream being given a Phase I priority ranking. The remaining streams were considered lower priority and were scheduled for implementation during Phase II. This two phase prioritization system has been the basis for development of the Liquid Effluent Program, and the negotiation of the State of Washington WAC 173-216 Consent Order and Tri-Party Agreement (TPA). Some adjustment of priorities did occur as a result of EPA and Ecology comments on the Liquid Effluent Study. Consent Order and TPA commitment language was developed to address special priorities.

The current listing of the 33 effluent streams is shown below.

Hanford Liquid Effluent Streams

Phase I Liquid Effluents

- 1 N Reactor Effluent
- 2 PUREX Plant Chemical Sewer
- 3 PUREX Plant Steam Condensate
- 4 PUREX Plant Ammonia Scrubber Condensate
- 5 242-A Evaporator Process Condensate
- 6 PUREX Plant Process Condensate
- 7 PUREX Plant Cooling Water (CWL)
- 8 B Plant Steam Condensate
- 9 B Plant Process Condensate
- 10 UO₃/U Plant Wastewater
- 11 UO₃ Plant Process Condensate
- 12 S Plant Wastewater
- 13 Plutonium Finishing Plant Wastewater
- 14 2101-M Laboratory Wastewater
- 15 300 Area Process Wastewater
- 16 163-N Demineralization Plant Wastewater
- 17 T Plant Wastewater
- 18 B Plant Chemical Sewer
- 19 222-S Laboratory Wastewater

Phase II Liquid Effluents

- 1 183-D Filter Backwash Wastewater
- 2 241-AZ Tank Farm Steam Condensate
- 3 242-A Evaporator Cooling Water
- 4 B Plant Cooling Water (CBC)
- 5 241-A Tank Farm Cooling Water
- 6 244-AR Vault Cooling Water
- 7 242-A Evaporator Steam Condensate
- 8 209-E Laboratory Reflector Water
- 9 284-E Powerplant Wastewater
- 10 284-W Powerplant Wastewater
- 11 400 Area Secondary Cooling Water
- 12 T Plant Laboratory Wastewater
- 13 2724-W Laundry Wastewater
- 14 242-S Evaporator Steam Condensate

1.B-2

MHC-SP-1097

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1995 MYPP

1.B. Program Mission Strategy

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 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 final disposition of these original 33 effluent streams is graphically portrayed on the chart in Section 2.C, Program Logic Diagrams.

In October 1991, the DOE and Ecology completed negotiations to establish new liquid effluent commitments for a WAC 173-216 Consent Order. Among other things, conditions were established for the Miscellaneous liquid effluent streams. A Miscellaneous stream is defined as a stream that is not categorized as one of the 33 major Hanford liquid effluents and is discharged to an engineered disposal structure. This Consent Order identified eleven higher priority effluent streams and established the dates for submittal of WAC 173-216 permit applications during FY 1994. The final disposition of the identified eleven higher priority Miscellaneous Streams and all other Miscellaneous Streams requires their identification and evaluation. Based on the initial evaluation, a subset of all streams will be further evaluated to include identification of the BAT/AKART treatment options. The strategy for categorizing and evaluation of all streams was developed and presented in the final Plan and Schedule for Disposition and Regulatory Compliance submitted in January 1994. This strategy is currently under negotiation with the regulators.

As part of the Liquid Effluent Advanced Engineering efforts to apply a systems engineering approach to the program, 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.

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WHC-SP-1097

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1995 MYPP

1.B.1. Technical Functions/Requirements

Technical Functions and Requirements

The U.S. Department of Energy Richland Operations Office Policy Directive (RLPD) 4900.1, *Systems Engineering*, requires a systems engineering approach be used to identify work to clean up the Hanford Site. The systems engineering process is a sequence of activities and decisions that transform an identified mission need into a set of performance parameters and a preferred system configuration. The purpose is to ensure that the product meets the program objectives, satisfies the functional requirements, operates effectively in the intended environment, and demonstrates a level of performance and reliability that justifies the investment.

Mission analysis is the first step in the systems engineering process. Mission analysis supports early decision-making by clearly defining the program objectives, and evaluating the feasibility and risks associated with achieving those objectives. The mission analysis has the following elements:

- Expand and refine the mission statement
- Identify the mission goals and objectives
- Identify the initial conditions and acceptable final output conditions
- Define the boundaries (i.e., programmatic and physical interfaces) and sources of constraints
- Estimate the resources needed to carry out the mission
- Establish criteria to determine the extent to which the problem will be solved (i.e., measures of success)
- Identify additional information needed
- Assess the mission feasibility.

Results of the mission analysis are described in *Liquid Effluents Program Mission Analysis*, WHC-SD-WM-MAR-003 (Draft). The mission analysis will be updated throughout the systems engineering process as required.

1.B.1-1

WHC-SP-1097

LIQUID EFFLUENT

WBS 1.2.2.1

FY 1995 MYPP

1.B.1. Technical Functions/Requirements

The mission analysis defines the function that a system as a whole must perform. This top-level function can be decomposed into subfunctions that are both necessary and sufficient to accomplish the mission. Functions are specific actions or processes that achieve or support the achievement of objectives (i.e., what must be done). Products of the functional analysis include a function hierarchy, function interface diagrams, function descriptions, and input and output descriptions. Requirements are criteria that set acceptable limits on functions and their products (i.e., how well a function must be performed). Requirements analysis is the systematic identification and allocation of requirements for each function and subfunction. The process identifies potential sources of requirements for each function, divides the sources into discrete statements of individual requirements, and allocates the requirements to functions. Four types of requirements are generally found: external requirements, internal requirements, commitments and other negotiated requirements, and mission-driven requirements. Potential solutions are identified and evaluated to assess full compliance with the requirements. A preferred system configuration is then developed. The functions and requirements, and results of the alternative selection process are reported separately by Systems Engineering. The functions and requirements will be updated as needed.

Technical Requirements

Implementation of the Liquid Effluent Treatment Program is dependent on the following technical requirements all of which are identified on 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 for each waste stream.
- Regulator Buy-In 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.
- Permits - State of Washington and/or federal permits are required to implement the goals and objectives of the Liquid Effluent 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" for the Program, 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

1.B.1-2

WHC-SP-1097

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1995 MYPP

1.B.1. Technical Functions/Requirements

obtained). Others of these requirements are "hold-points" for the Program, 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 Effluent Program are summarized in the table below:

Summary of Regulatory Activities

Permit or Requirement	Effluent Treatment Facility (C-018H)	200 Area TEDF (W-048H)	300 Area TEDF (L-045H)	340 Facility	Phase II ETF (W-252)	200E&W BAT/ AKART (W-291)	Misc. Streams	LERF (W-105)
NEPA -Environmental Assessment	yes, HEC-EA	yes, HEC-EA	yes, HEC-EA	?	no	no	EA?	no
NEPA - Categorical Exclusion	no	no	no	?	yes	yes	?	no
SEPA - Checklists	yes	yes	yes	yes	yes	yes	yes	yes
RCRA - Interim Status	yes	no	no	yes	no	no	no	yes
RCRA - Part A	yes	no	no	yes	no	no	no	yes
RCRA - Part B	yes	no	no	yes	no	no	no	yes
Delisting	yes	no	no	no	no	no	no	no
CAA - NESHAPS	yes	no	no	yes	no	no	no	no
CAA - PSD	no	no	no	no	no	no	no	no
CAA - RAEP	yes	yes	yes	no	no	no	no	no
CAA - TAPS	yes	no	no	no	no	no	no	no
CWA - NPDES	no	no	yes	no	no	no	no	no
CWA - 240 Report	yes	yes	no	no	yes	no	?	no

1.B.1-3

MHC-SP-1097

**LIQUID EFFLUENT
WBS 1.2.2.1**

1.B.1. Technical Functions/Requirements

Permit or Requirement	Effluent Treatment Facility (C-018H)	200 Area TEDF (W-049H)	300 Area TEDF (L-045H)	340 Facility	Phase II ETF (W-252)	200E&W BAT/ AKART (W-291)	Misc. Streams	LERF (W-105)
CWA - 216 Permit	yes	yes	no	no	yes	no	yes	no
Wild and Scenic River	no	no	yes	?	no	no	no	no
Hydraulic Permit	no	no	yes	no	no	no	?	no
Corps Permit	no	no	yes	no	no	no	no	no
Water Quality Mod.	no	no	yes	no	no	no	?	no
Septic Permit	yes	no	no	no	no	no	no	no
RD & D Permit	yes	no	no	no	no	no	?	no

Note: ? = unknown at the present time

- Facility Design - The facility design must be capable of implementing the approved BAT and of being approved by the regulators.
- Miscellaneous Streams - The requirements of the Miscellaneous Stream activity is to identify, characterize and evaluate, eliminate or reduce, and permit all liquid effluent streams at Hanford not managed under another liquid effluent stream program. These activities will be carried out under the normal Federal budget cycle process.
- 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.

1.B.1-4

MHC-SP-1097

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1995 MYPP

1.B.1. Technical Functions/Requirements

- Facility Operations - Operate each treatment facility meeting 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 - During operations, samples must be taken to verify process treatment trains are appropriately treating each stream to meet operating and discharge permit requirements. Laboratories are required to analyze samples per regulatory requirements defined in permits.
- Future Feeds to Treatment Plants - Identify, characterize, and evaluate suitability (using micro-pilot plant equipment as required), and modify applicable permits to treat future waste streams in the 200 Area ETF and 300 Area TEDF. Priority of evaluation will support ER cleanup and other waste management needs.
- Program Planning and Funding - Program Management will plan funding needs for each of the treatment facilities, in coordination with Liquid Effluent Advanced Engineering, 200 Area Operations, and 300 Area Operations organizations, to meet requirements for normal Federal budget cycles.
- Tritium Technology Review - Perform yearly review of all tritium treatment technology developments and evaluate for BAT/AKART implementation at the 200 Area ETF.

1.B.1-5

WHC-SP-1097

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1995 MYPP

1.B.2. Program Objectives

PROGRAM MANAGEMENT:

- Program Management/Administration - Provide overall coordination, direction and customer interface for the activities in the Liquid Effluent Program. Administrative support is provided for program documentation, funds management, scheduling, and reporting.

Deliverables:

- * Prepare monthly Site Management System (SMS), Progress Tracking System (PTS) Reports
- * Prepare Program Activity Data Sheets, MYPP/FYWP
- * Prepare Resource Loaded Schedules

- LERF - Start, operate, and clean out the Liquid Effluent Retention Facility to support the operation of the 242-A Evaporator and the requirements identified in the Tri-Party Agreement.

Deliverables:

- * Operate and maintain facility to support operation of the 242-A Evaporator
- * Cleanout facility after inventory is processed through the ETF
- * Sample/Analyze waste in LERF Basins

200 AREA OPERATIONS:

- 200 Area Effluent Treatment Facility - Start and operate the 200 Area Effluent Treatment Facility to process the liquid inventory stored in LERF and to support the continued operation of the 242-A Evaporator.

Deliverables:

- * Complete staffing and train staff
- * Complete Operational Readiness Review and hot startup
- * Secure applicable permits
- * Operate and maintain facility per applicable permit requirements

- 200 Area TEDF - Start and operate the 200 Area Treated Effluent Disposal Facility to collect certain effluent streams from the 200 Areas after the application of BAT/AKART and provide a permitted disposal facility for those effluents. Streams include:

1.B.2-1

WHC-SP-1097

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1995 MYPP

1.B.2. Program Objectives

PUREX Chemical Sewer, B Plant Chemical Sewer, Plutonium Finishing Plant Wastewater, T Plant Wastewater, 222-S Laboratory Wastewater, B Plant Steam Condensate, B Plant Process Condensate, 284-W Powerhouse Cooling Water; T Plant Laboratory Wastewater, and 242-A-81 Water Services Building Wastewater.

Deliverables:

- * Complete Operational Readiness Review and hot start-up for pipeline/disposal site only
- * Approve generator waste acceptance documentation to allow hook-up to the 200 Area TEDF
- * Secure applicable permits
- * Operate system in accordance with applicable permit requirements

- BAT/AKART Implementation (W-291) - Provide funding and management for the implementation of BAT/AKART at four 200 Area facilities preparatory to discharge to the 200 Area TEDF:

T Plant, UO₃/U Plant, 2101-M Laboratory, and 284-W Powerplant

Deliverables:

- * Complete Operational Readiness Review and hot start-up for Load-in/Load-out station at the 200 Area ETF only
- * Approve generator waste acceptance documentation to allow hook-up to the 200 Area TEDF

300 AREA OPERATIONS:

- 300 Area TEDF - Start and operate the 300 Area Treated Effluent Disposal Facility to process the liquid effluents from the 300 Area which were formerly discharged to the 300 Area Process Trenches. Provide management, design, startup, and operation of the process-sewer pipeline replacement project. Provide current operation and define future modifications required for the 340/307 Facilities.

Deliverables:

- * Complete staffing and train staff
- * Complete Operational Readiness Review and hot startup
- * Secure applicable permits

1.B.2-2

MHC-SP-1097

LIQUID EFFLUENT

WBS 1.2.2.1

FY 1995 MYPP

1.B.2. Program Objectives

* Operate and maintain facility in accordance with applicable permit requirements

- 340/307 Facilities - Operate and maintain the 307 basin as the collection and verification facility for the retention process sewer and the 340 Facility as the collection point for the radioactive liquid waste system wastewaters, including wastes regulated under RCRA.

Deliverables:

- * Continue safe, environmentally sound operations
- * Define required upgrades
- * Complete upgrade designs
- * Complete upgrade modifications
- * Complete Operational Readiness Review and hot start-up
- * Modify applicable permits

- 300 Area Process Sewer and Trenches - Operate and maintain the process sewer and trenches. Support Project L-070 which replaces the process sewer piping system with a modern system. Remove the process trenches from service in December 1994 with the operation of the 300 Area TEDF.

Deliverables: Review facility design

LIQUID EFFLUENT ADVANCED ENGINEERING:

- 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.

Deliverables: Complete FDC revisions as necessary
Prepare a CDR

- 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 TEDF 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)

1.B.2-3

MHC-SP-1097

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1995 MYPP

1.B.2. Program Objectives

Steam Condensate, 183-D Filter Backwash and the 400 Area Secondary Cooling Water will not be discharged to the 200 Area TEDF).

Deliverables:

- * Complete BAT/AKART design
- * Complete construction
- * Complete Operational Readiness Review and hot start-up
- * Modify applicable permits

- 200 Area Advanced 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 Vitrification 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.

Deliverables:

- * 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 - Define the suitability of the 300 Area TEDF to treat future waste streams. Provide the technical decision on whether the 300 Area TEDF should be privatized and connected to the Richland POTW.

Deliverables:

- * 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

1.B.2-4

WHC-SP-1097

LIQUID EFFLUENT

WBS 1.2.2.1

FY 1995 MYPP

1.B.2. Program Objectives

- Miscellaneous Streams - An initial inventory of miscellaneous streams was prepared in FY 1993, which formed the basis for the Miscellaneous Stream activity. Complete a Plan and Schedule for the disposition of the Site's miscellaneous streams. Implementation of requirements outlined in the Plan and Schedule for those streams will continue along the same lines as the original 33 streams. This will include stream characterization, identification of BAT/AKART, permitting, identification of new facility requirements, and regulator approval of these activities. Any additional streams identified subsequent to the completion of the Plan and Schedule will be dispositioned on an individual basis by the stream owner.

Deliverables:

- * Complete negotiations with regulators regarding implementation of the Plan and Schedule
- * Perform sampling characterization
- * Define Best Management Practices
- * Prepare required permits
- * Define BAT/AKART

- Interim Compliance - Perform sampling and analysis activities as required by the approved Sampling and Analysis Plans to support the preparation of WAC 173-216 Permit applications. Perform groundwater impact assessments to determine the affect of continued discharge of liquids to the soil. Complete site and stream characterization activities. Provide on-line stream characterization data to the regulators using the Liquid Effluent Management Information System (LEMIS).

Deliverables:

- * Groundwater Impact Assessments to allow continued operation pending completion of treatment facilities.
- * LEMIS Maintenance and Operations

1.B.2-5

MHC-SP-1097

LIQUID EFFLUENT
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FY 1995 MYPP

1.C. Program Planning Assumptions

Program Office

- All Tri-Party Agreement and Consent Order Milestones will be accomplished on schedule.
- Funding remains available to meet the needs of all currently scheduled workscope.
- Soil Column discharges will be permitted through the State Waste Discharge Permit Program and the river discharge will be permitted through the National Pollutant Discharge Elimination System (NPDES).
- 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 obtained from the regulators to meet accelerated schedules as defined by Tri-Party Agreement milestones.

200 Area ETF Operations

- The basic assumption is that BAT/AKART will be implemented at the generating facilities and therefore the liquid effluents entering the 200 Area TEDF collection system will be suitable for discharge to a permitted disposal structure. Selected BAT/AKART for the following waste streams will result in their elimination:
 - S Plant Wastewater
 - 242-S Evaporator Steam Condensate
 - PUREX Plant Steam Condensate
 - PUREX Plant Cooling Water
 - 2101-M Laboratory Wastewater
 - 272-W Laundry Wastewater
 - UO₃ Process Condensate Wastewater
 - UO₃ Wastewater
 - 241 AY/AZ Tank Farm Steam Condensate
 - 209-E Laboratory Reflector Water
 - PUREX Plant Ammonia Scrubber Condensate
 - PUREX Process Condensate
- Assume 200 Area Facilities' treatment train, as designed are approved by the regulators, and meet the requirements identified in any applicable permits.
- It is assumed that the Effluent Treatment Facility (C-018H) project is covered under interim status expansion.
- The ETF is a low-hazard nuclear facility and the 200 Area TEDF is a low-hazard, non-nuclear facility.

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MHC-SP-1097

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1995 MYPP

1.C. Program Planning Assumptions

- The effluent routed to the 200 Area TEDF is not a dangerous effluent.
- The Effluent Treatment Facility and 200 Area TEDF will utilize soil column disposal of dischargeable effluents as the preferred option.
- All LERF operations will be conducted by the 200 Area Operations staff starting in FY 1996. Tank Farms personnel will conduct operations at LERF until this time.
- The effluent stored in the LERF Basins and the Evaporator process condensate are listed wastes ("derived from") and will require a federal delisting prior to treatment and discharge to the soil column.
- It is assumed that the LERF cleanout will be a simple rinse out with clean water and that the rinse water can be put through the ETF during a period when it is not required for 242-A Evaporator feed. Further, it is assumed that existing funds will be adequate for this rinsing activity.
- The delisting strategy is based on the assumption that the treatment technologies selected for the ETF process train will result in a robust treatment system capable of treating any 242-A Evaporator PC which could reasonably be expected. The envelope testing with surrogate feed will be conducted to demonstrate this capability. The filtration treatment capabilities will be demonstrated via a testing program using actual 242-A Evaporator feed at the LERF basin.
- It has been assumed that the Operational Readiness Review (ORR) for the ETF will be a category 3 as the hazard classification for the ETF is low hazard, nuclear and the RL ORE is scheduled for six weeks to meet TPA milestones. If this category is changed or the ORR requirements are increased the schedule and costs will be significantly impacted.

300 Area Operations

- Assume 300 Area TEDF treatment train, as designed is approved by the regulators, and meets the requirements identified in any applicable permits.
- The 300 Area TEDF will discharge to the Columbia River and the Land Lease issue will be resolved.
- RL Readiness Assessment scheduled for six weeks to meet TPA milestones.

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MHC-SP-1097

LIQUID EFFLUENT

WBS 1.2.2.1

FY 1995 MYPP

1.C. Program Planning Assumptions

- The 300 Area process wastewater is not a dangerous effluent.
- The 300 Area TEF is a non-nuclear facility.
- 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 at least an interim basis until the facility can be replaced/upgraded under Project W-302. The tanks will not be declared "unfit for use" as a result of the integrity assessment.
- Development of an Interim Safety Basis and a DOE 5480.23 compliant safety analysis report for the 340 Facility 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.

Liquid Effluent Advanced Engineering

- The miscellaneous stream characterization and permitting strategy is based upon grouping like streams together and performing detailed sampling and characterization on only one of the streams represented by that grouping.
- The design of the ETF is intended to accommodate a wide variety of wastewater feeds. However, it is not possible to adequately predict the impact upon the treatment process without pilot plant data. As examples pilot plant data is needed to determine if these new feeds will foul the treatment system, reduce treatment efficiencies, or produce secondary wastes which cannot be handled within the 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.

1.C-3

MHC-SP-1097

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WBS 1.2.2.1

FY 1995 MYPP

1.D. Program Issues and Constraints

- Permits - Discharge limits proposed in draft permits issued for comment are exceeding the capabilities of plant designs and the capabilities of existing analytical methods to detect to the concentrations proposed.
 - Limits proposed by the EPA in the 300 Area NPDES permit for discharges into the Columbia River are too restrictive to allow consistent, compliant operation. Non-compliant operations will 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. Discussions are underway with the EPA to resolve this issue.
 - Available methods for sample analysis are not adequate to consistently and accurately detect the constituents at the required levels in the draft permits thus far received from the regulators. Minimum levels are still below practical quantification for many metals.
- Aquatic Land Lease - The land lease required for the long-term use of the 300 Area TEDF outfall has not been granted by the Department of Natural Resources (DNR). The most recent draft of the Aquatic Land Lease issued by the DNR has significant changes in the indemnification language which may be acceptable with respect to the provisions of the Anti-Deficiency Act. The new language was reviewed by DOE-RL legal and changes were made and sent back to the DNR for their approval. Significant concerns still exist with technical issues associated with the lease including radiological monitoring, reporting, river monitoring, and fines.
- LERF Cleanout and Future Uses - The extent and cost of LERF basin cleanout is not known. Studies are underway to identify future uses for the facility which may play a part in the processing of new feeds to the 200 Area ETF.
- 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. Studies for to this end are being conducted during FY 1995.
- Readiness Review Process Unknowns - The time and duration of readiness review activities is not fully established nor is the process. The 300 Area TEDF plans to perform a Readiness Assessment while the 200 Area ETF is planning a graded approach to the Readiness Review process.

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WHC-SP-1097

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1995 MYPP

Note: RL (SMS) WBS Numbers assigned only to the Cost Account level
HQ WBS Numbers assigned only to the ADS level

2.A.1. Work Breakdown Structure (to Work Package level)				
ADS #	RL WBS No.	HQ WBS No.	WHC FDS No.	Description
	1.2	1.3.7.3	A	Solid/Liquid Waste and Decon Services
	1.2.2			Liquid Waste
2300-0	1.2.2.1	1.3.7.3.4	A2	Liquid Effluent
2300-0	1.2.2.1.1		IA21	Program Office
2300-0	1.2.2.1.1.0001		1A2111	Program Management
2300-0			1A211101	Program Management
2300-0			1A211104	Other Program Support
2300-0	1.2.2.1.1.0003		1A2113	LERF Operations
2300-0			1A211301	LERF Operations
2300-0	1.2.2.1.2		IA22	200 Area ETF Operations
2300-0	1.2.2.1.2.0001		1A2211	200 Area Liquid Effl Facilities Operations
2300-0			1A221101	Facility Operations
2300-0			1A221102	Facility Startup Support
2300-0			1A221103	Facility Testing Support
2300-0	1.2.2.1.2.0002		1A2212	200 Area Liquid Effl Facilities Maintenance
2300-0			1A221201	Maintenance Craft Personnel
2300-0			1A221202	Facility Maint Mgmt, Materials & Equip
2300-0			1A221203	Maintenance Procedures
2300-0			1A221204	Misc Maintenance Support
2300-0	1.2.2.1.2.0003		1A2213	200 Area Liquid Effl Facilities Oprns Supt
2300-0			1A221301	Facility Manager/Administration
2300-0			1A221302	Work Control/Job Control System
2300-0			1A221303	Health Physics Support
2300-0			1A221304	Safety Support
2300-0			1A221305	Quality Assurance Support
2300-0			1A221306	Operations Analysis Support
2300-0			1A221307	ETF Training Models
2300-0			1A221308	ETF Training
2300-0	1.2.2.1.2.0004		1A2214	200 Area Liquid Effl Facilities Engineering
2300-0			1A221401	Process Engineering Mgmt/Administration
2300-0			1A221402	Cog Engineering Support
2300-0			1A221403	Misc Engineering Staff
2300-0			1A221404	Central Engineering Design/Drafting

**LIQUID EFFLUENT
WBS 1.2.2.1**

FY 1995 MYPP

2.A.1. Work Breakdown Structure (to Work Package level)				
ADS #	RL WBS No.	HQ WBS No.	WHC FDS No.	Description
2300-0	1.2.2.1.2.0005		1A221405	FSAR Maintenance and Annual Update
2300-0			1A221406	Engineering Procedures
2300-0			1A221407	Facility Post-Turnover Vendor Support
2300-0			1A2215	200 Area Regulatory Compliance/Permitting
2300-0			1A221501	Environmental Compliance/Engineering
2300-0			1A221502	Permitting
2300-0			1A221503	Waste Shipping and Control
2300-0			1A221504	Laboratory Interface/Air Sampling
2300-0			1A221505	Regulatory Interface
2300-0			1A221506	WSCF Laboratory
2300-0			1.2.2.1.2	
2300-0	1.2.2.1.3		1A23	300 Area T EDF Operations
2300-0	1.2.2.1.3.0001		1A2311	300 Area Liquid Efflu Facilities Operations
2300-0			1A231101	Operations Management/Administration
2300-0			1A231102	300 Area Facilities Operations
2300-0			1A231103	340/307 Facility Integrity Assessment
2300-0			1A231104	340/307 Conduct of Operations
2300-0			1A231105	300 Area Training
2300-0			1A2312	300 Area Liquid Efflu Facilities Maintenance
2300-0	1.2.2.1.3.0002		1A231201	300 Area T EDF Maintenance
2300-0			1A231202	340/307 Facility Maintenance
2300-0			1A2314	300 Area Liquid Efflu Facilities Engineering
2300-0	1.2.2.1.3.0004		1A231401	300 Area Engineering Programs
2300-0			1A2316	300 Area Regulatory Compliance/Permitting
2300-0	1.2.2.1.3.0006		1A231601	300 Area Regulatory Compliance/Permitting
2300-0			2A23	300 Area Capital Equipment
2300-0	1.2.2.1.3		1A24	Liquid Effluent Advanced Engineering
2300-0	1.2.2.1.4.0002		1A2411	200 Area Liquid Efflu Advanced Engineering
2300-0			1A241102	Advanced Engineering Lead Management
2300-0			1A241113	ETF Flexibility/Logic
2300-0			1A241117	Systems Engineering Support to LES
2300-0			1A241118	Process Verification
2300-0			1A241120	LERF Biological Study
2300-0			1A241121	Future 200 Area ETF Upgrades
2300-0			1.2.2.1.4.0003	

**LIQUID EFFLUENT
WBS 1.2.2.1**

FY 1995 MYPP

2.A.1. Work Breakdown Structure (to Work Package level)				
ADS #	RL WBS No.	HQ WBS No.	WHC FDS No.	Description
2300-0			1A241201	Future 300 Area TEDF Upgrades
2300-0			1A241202	300 Area Office Support Facility
2300-0	1.2.2.1.4.0004		1A2413	Miscellaneous Streams
2300-0			1A241301	Revise Plan and Schedule
2300-0			1A241304	Miscellaneous Stream Permitting
2300-0			1A241305	Injection Well Registration
2300-0			1A241306	Best Management Practices
2300-0			1A241307	Miscellaneous Streams Update
2300-0	1.2.2.1.4.0005		1A2414	Tritium Waste Technology Evaluation
2300-0			1A241401	Tritium Waste Study
2300-0	1.2.2.1.4.0006		1A2415	Interim Compliance
2300-0			1A241501	Groundwater Impact Statements
2300-0			1A241502	LEMIS Project Management and Support
2300-0	1.2.2.1.4.0007		4A2417	ETF Flexibility Enhancements (FY97 GPP)
2300-0	1.2.2.1.4.0008		4A2418	ETF Instrument Optimization (FY98 GPP)
2300-0	1.2.2.1.4.0009		4A2428	ETF Secondary Organic Removal (FY98 GPP)
2300-0	1.2.2.1.4.0010		4A2419	ETF Recycle Capability (FY99 GPP)
2300-0	1.2.2.1.4.0011		4A2429	ETF Offgas Treatment (FY99 GPP)
2300-0	1.2.2.1.4.0012		4A2416	ETF Filtration System Upgrade (FY96 GPP)
2300-0	1.2.2.1.4.0013		4A2426	ETF UV/OX Additional Capacity (FY96 GPP)
2300-0	1.2.2.1.4.0014		4A2427	ETF Add'l Radionuclide Separation (FY97 GPP)
2300-0	1.2.2.1.4.0015		4A2317	300 A TEDF Alternate Feed Upgrade (FY97 GPP)
2300-0	1.2.2.1.4.0016		4A2316	300 Area Office Support Facility (FY98 GPP)
2300-0	1.2.2.1.4.0017		4A2327	300 Area TEDF Sludge Drier (FY97 GPP)
2300-1	1.2.2.1.5	1.3.7.3.15	1A25	<i>Phase II Effluent Treatment/Disposal</i>
2300-1	1.2.2.1.5.0001		1A2502	BAT Implementation Phase II Streams
2300-1			1A250201	Permitting
2300-1			1A250203	Design Review
2300-1			1A250204	Safety Documentation Review
2300-1			1A250206	Early Start/Automated Data Processing Plan
2300-1			1A250207	LEAE Supt to Construction
2300-1			1A250208	Project Management Support
2300-1			1A250210	Readiness Review
2300-1	1.2.2.1.5		3A25	Liquid Efflu Advanced Engineering Line Item
2300-1	1.2.2.1.5.0002		3A2500	Project W-252 Line Item

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1995 MYPP

2.A.1. Work Breakdown Structure (to Work Package level)				
ADS #	RL WBS No.	HQ WBS No.	WHC FDS No.	Description
2330-0	1.2.2.1.9	1.3.7.3.12	<i>1A8B</i>	<i>340 Facility Waste Storage Upgrade (W-302)</i>
2330-0	1.2.2.1.9.0001		1A8B11	340 Facility Waste Storage Upgrade (W-302)
2330-0	1.2.2.1.9		3A8B11	Proj W-302, 340 Facility Waste Storage Upgd
2330-0	1.2.2.1.6	Unknown	<i>1A8A</i>	<i>Misc Stream BAT Implementation</i>
2330-0	1.2.2.1.6.0001		1A8A11	Misc Stream BAT Implementation
2330-0	1.2.2.1.6.0002		3A8A11	Project W-xxx, Misc Strm BAT Impl

LIQUID EFFLUENT

FY 1995 MYPP

WBS 1.2.2.1

2.A.2. WBS Dictionary		
WORK BREAKDOWN STRUCTURE DICTIONARY		
1 PROJECT TITLE/PARTICIPANT Liquid Effluent Program	2 DATE August 31, 1994	3 IDENTIFICATION NO.
4 WBS ELEMENT CODE 1A21/1.2.2.1.1	5 WBS ELEMENT TITLE Liquid Effluent - Program Office	
6 INDEX LINE NO.	7 REVISION NO AND AUTHORIZATION Rev 0	8 DATE August 31, 1994
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 form 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:

Program Management and Administration - WBS 1.2.2.1.1.0001 (A2111)

The overall objective of the Program Management/Administration activity is to provide direction, coordination, and customer

LIQUID EFFLUENT

FY 1995 MYPP

WBS 1.2.2.1

interface to those activities required to meet the major mission to 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.

LERF Operations - WBS 1.2.2.1.1.0003 (A2113)

Operate and maintain the LERF in an environmentally secure manner to store the 242-A Evaporator process condensate until such time that it can be processed by the 200 Area Effluent Treatment Facility. This workscope includes surveillance, sampling, and analysis costs. This workscope will be included under the 200 Area ETF operations in FY 1996. Studies to develop alternative uses for the LERF once it is clean closed are being performed under the Advanced Engineering activity of the program.

**LIQUID EFFLUENT
WBS 1.2.2.1**

FY 1995 MYPP

2.A.2. WBS Dictionary		
WORK BREAKDOWN STRUCTURE DICTIONARY		
1 PROJECT TITLE/PARTICIPANT Liquid Effluent Program	2 DATE August 31, 1994	3 IDENTIFICATION NO.
4 WBS ELEMENT CODE 1A22/1.2.2.1.2	5 WBS ELEMENT TITLE 200 Area Effluent Treatment Facility (ETF) Operations	
6 INDEX LINE NO.	7 REVISION NO AND AUTHORIZATION Rev 0	8 DATE August 31, 1994
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 form other Hanford contractors, internal company charges, functional overhead, G&A/CSP.

B. TECHNICAL CONTENT:

The mission of the 200 Area ETF Operations is to provide safe, cost effective and environmentally sound design review, construction review, readiness review, startup testing, and continued operations of all 200 Area effluent treatment facilities. The scope of this effort currently includes:

LIQUID EFFLUENT

FY 1995 MYPP

WBS 1.2.2.1

- 200 Area Effluent Treatment Facility (constructed under HEC Line Item Project C-018H)
- 200 Area Treated Effluent Disposal Facility (constructed under HEC Line Item Project C-049H)
- 200 Area BAT/AKART Implementation (constructed under HEC Line Item Project W-291H)

The 200 Area Operations program element is divided into five activities (cost accounts):

1A2211/1.2.2.1.2.0001 - 200 Area Liquid Effluent Facilities Operations

Operate the Liquid Effluent Facilities in the 200 Area in accordance with the operating schedules. This includes continuous operations of the 200 Area TEDF and the ETF at a TOE of 72%.

Perform operations pre-start requirements. Includes facility classroom and OJT training of operations personnel, perform facility testing (OTPs), review operations documents, perform 200 Area TEDF Readiness Assessment.

Assist Cog Engineers with the writing of the OTP test procedures, review of the completed OTP test, and review of plant procedures for acceptability.

1A2212/1.2.2.1.2.0002 - 200 Area Liquid Effluent Facilities Maintenance

Complete the hiring and training of plant maintenance personnel.

Provide maintenance support to startup testing activities.

Perform instrument calibrations, equipment PMs, predictive maintenance tasks, and corrective maintenance as scheduled by the work control system.

Maintain tool, equipment, and material inventories as necessary to support efficient facility maintenance.

Participate on Plant Readiness Team, complete validation packages to verify readiness of the maintenance department.

FY 1995 MYPP

LIQUID EFFLUENT**WBS 1.2.2.1**

Complete Maintenance Implementation Plan, maintenance administrative procedures, and calibration and preventative maintenance procedures.

1A2213 - 200 Area Liquid Effluent Facilities Operations SupportWork Control and Job Control

Perform readiness review activities that are required to support the LEF startup including plan/procedure reviews and certification package development and approval.

Perform work control activities that will be required to support the startup and operation of the 200 Area LEF. Responsibilities include effectively managing and safely controlling work activities. These activities include work package validation, planning and scheduling of corrective/preventive/predictive maintenance, modification, construction, configuration control, and related services that impact facility operations.

Develop and track facility integrated schedules to communicate the facility's major commitments. Activities include providing schedules which identify major operating and related activities, projects, and milestones for multi-time periods. These schedules will be updated and maintained continuously throughout the operating cycles of the facility.

In accordance with WHC-CM-2-1, Procurement Manual and Procedures, and WHC-CM-2-2, Materials Management, manage, control, and direct the activities that provide essential materials, maintenance materials, and consumable supplies to support production and maintenance schedules. Activities include procurement, spare parts, excessing of materials, planning and statusing of all material requirements, coordinating and interfacing with the material system for handling, staging, and storing material, and property equipment transfers.

Perform document configuration control for the 200 Area LEF. Activities include releasing engineering documents, maintaining microfilm of drawings and hard copies of change documents, maintaining and assigning drawing numbers, maintaining the technical reference library files, providing data base reports /searches on design documents with the Engineering Records System Database.

LIQUID EFFLUENT

FY 1995 MYPP

WBS 1.2.2.1Operations Analysis and Support

Perform technical editing, approval coordination, distribution and maintenance for the facilities' administrative and operating procedures. As the focused activities of procedure generation end, Operations Analysis and Support will put greater emphasis on self-assessment of plant operations and continuous improvement. Upon completion of facility turnover, emphasis will center on event reporting, emergency preparedness and accident investigations.

Workscope is divided into four major areas:

Procedures and Compliance - Readiness Review documentation support and affidavit development; SRID maintenance for currency with regulations and performance assessment; develop and maintain Conduct of Operations, training Implementation and Price/ Anderson Codification Matrices; and, review and coordinate application of Company procedures within the LEF organization.

Performance Assessment and Event Reporting - Prepare facility performance measures and track facility performance; provide semi-annual PEB input and perform the semi-annual self assessment; prepare Management Oversight Program tour procedures and manage and track actions from these tours; prepare and implement a Drill Program in the facility and administer the resulting lessons learned program; and, develop and implement an event reporting and tracking system.

LEF Administrative Support - Provide training administration and support including HGET, staff training scheduling, mandatory training matrix management, and Facility Orientation Manual maintenance and upgrade; perform LEF administrative functions such as building administration, move coordination, computer and ADP support, equipment accountability and tracking, and audit/tour coordination and support; maintain building safety/security and emergency preparedness procedures and monitoring; and, perform plant consumable/service procurement and tracking.

Operations Analysis and Support Group Administration - Perform the routine administrative activities required to maintain a viable organization such as performance appraisals, staff meetings, etc.; attend mandatory training; and, administer staff personal development activities.

LIQUID EFFLUENT

FY 1995 MYPP

WBS 1.2.2.1

LEF Health Physics Program

Provide job coverage support for operations, maintenance, and laboratory activities. These requirements include radiological program self assessments, radioactive source control, air sampling tracking and trending, training certification/ recertification/ OJT's, emergency response training, and absence relief for personnel.

Implement and operate a radiological surveillance program which provides radiological data from both dose rates and contamination levels found in the facility. This is accomplished through the completion of routine surveys, documentation of results and follow-up surveys (required for over-limit or out of compliance conditions). Provide support to effluent sampling and monitoring, 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).

Provide support to budgeting, purchasing, tracking and trending, scheduling/JCS, ALARA implementation, radiological controls (i.e. hold points), safety compliance, and emergency response.

Quality Assurance

Provide Quality Assurance support to the 200 Area LEF after facility takeover and to include participation in the Plant Readiness Review and preparation for facility startup. Support required after normal operations have begun include document reviews, procedure reviews, and work package approvals.

ETF Training Models

Maintain LEF tour simulation current to plant configuration. Upgrade as needed to meet evolving plant needs.

ETF Training

Implement an on-going ETF initial and continuing training program to meet facility staffing requirements. Complete development and implementation of the initial training curriculum in support of the ETF startup project milestones. Revise and update the initial

LIQUID EFFLUENT

FY 1995 MYPP

WBS 1.2.2.1

training curriculum to correct technical inaccuracies and lessons learned during the initial facility startup. Provide on-going administrative and management support for the ETF training program.

Tasks include:

Develop OJT qualifications cards and guides for each of the four NPO certification areas in support of initial facility startup.

Develop Job Performance Measures (JPMs) for each of the four NPO certification areas in support of initial facility startup.

Complete the initial development of the individual process system (IPS) training course materials in support of initial facility startup.

Complete the initial development of the miscellaneous training courses in support of initial facility startup.

Conduct two initial classroom training classes.

Conduct On-The-Job Training (OJT) and EP/APC Drills in support of initial facility startup.

Conduct follow-up training class in support of initial facility startup.

Conduct operational evaluations.

Conduct written certification examinations.

Develop and conduct five shift cycles of continuing training for operations personnel.

Develop ETF facility specific maintenance training materials.

Provide initial training to operations and operations support personnel as required to meet facility staffing requirements.

Revise initial training materials, as required, to incorporate latest technical and operational information as a result of operational testing of the ETF.

LIQUID EFFLUENT

FY 1995 MYPP

WBS 1.2.2.1

Provide training related administrative and management support.

Provide training related support to the ETF operational readiness review activities.

Take action to evaluate the quality and effectiveness of the ETF initial and continuing training programs.

1A2214/1.2.2.1.2.0004 - 200 Area Liquid Effluent Facilities Engineering

Provide management and clerical support and training to the Process Engineering group. Engineering staff will be required to maintain qualifications commensurate with their technical responsibilities.

Maintain engineering documents once the facility startup is complete. This work performed by the Cognizant Engineers as required in CM-6-1, EP-5.2 - Cognizant Engineering Responsibilities.

Provide engineering support for the 200 Area TEDF and W-291, BAT Implementation project Truck Off Load, and for configuration management activities. Provide capability to respond to requests for technical input to training classes, permitting issues, work control system on equipment data, etc., and operational readiness review activities.

Secure support from Central Engineering to perform engineering studies, generate engineering documents, perform design and drafting work which is beyond the LEF assigned Process Engineering staff.

Maintain the Facility Safety Analysis Report and, in accordance with DOE Orders, complete the annual updates to the FSAR.

In accordance with WHC-CM-6-1, Standard Engineering Practices, EP-2.1, Computer Software Configuration Management, prepare the computer software documentation for the software used in support of the ETF, 200 Area TEDF, 242-A Evaporator/ETF interfaces, and interfaces with W-291 and W-252.

Incorporate technical information learned during facility turnover and testing into the draft Operations Specifications Document completed during FY 1994.

LIQUID EFFLUENT

FY 1995 MYPP

WBS 1.2.2.1

Complete the review of Process Operating Procedures prepared by the construction contractor and determine the additional procedures required prior to facility startup. Prepare and review the required procedures and perform walk-downs to support those procedures.

Complete the Operational Test Procedures and prepare the supporting documentation. Testing and documentation will be in accordance with WHC-6-1, EP-4.2, Testing Practices.

Establish a task for support from vendors required after facility turnover. This support is expected to be required for facility trouble-shooting and modifications as operating experience is acquired.

1A2215 - 200 Area Regulatory Compliance/Permitting

Provide an Environmental Compliance Officer and environmental engineering support to the 200 Area LEF. Perform compliance review for operating procedures and SRIDS documentation. Provide ECO support for the Operational Readiness Review and maintain facility regulatory files.

Perform groundwater sampling and analysis for the 200 Area LEF.

Support preparation, revisions and regulator comments on the WAC 173-216 Permit, Dangerous Waste Permit, and the delisting petition. Support preparation of Interim Status requirements.

Coordinate sample collection and analysis activities for the LEF. Interface with 222-S and WSCF laboratories to ensure sample data supports the environmental permits and process control needs. Prepare Air Sample Plan; Issue Revised Sample Analysis Plan, implement a Rad Inventory Control Plan.

Perform environmental audits of the LEF; develop permit reporting system, and support ECO activities.

Adapt Analytical Methods to the ETF, develop new analytical parameters for organic, inorganic, radiochemical, and process control.

Provide Analytical Laboratory Support for the LEF including: Organic Standards, Inorganic Standards, Radionuclide Standards, ETF

LIQUID EFFLUENT

FY 1995 MYPP

WBS 1.2.2.1

Laboratory Setup Study, LIMS/LEMIS Support and Data Reporting, Sampling Procedures, and Quality Assurance Plans.

Perform sample analyses at the WSCF to include groundwater samples, process verification samples, process control samples, radionuclide inventory and solid waste samples, and air samples.

Support waste shipping activities to include preparation of the final Low-Level Waste Certification Plan, Waste Minimization Plan, waste handling procedures and EPRI Report.

**LIQUID EFFLUENT
WBS 1.2.2.1**

FY 1995 MYPP

2.A.2. WBS Dictionary		
WORK BREAKDOWN STRUCTURE DICTIONARY		
1 PROJECT TITLE/PARTICIPANT Liquid Effluent Program	2 DATE August 31, 1994	3 IDENTIFICATION NO.
4 WBS ELEMENT CODE 1A23/1.2.2.1.3	5 WBS ELEMENT TITLE 300 Area TEDF Operations	
6 INDEX LINE NO.	7 REVISION NO AND AUTHORIZATION Rev 0	8 DATE August 31, 1994
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, functional overhead, G&A/CSP.

B. TECHNICAL CONTENT:

The mission of the 300 Area TEDF Operations activity is to provide safe, cost effective, and environmentally sound design, construction and readiness reviews, startup testing and continued operations of all 300 Area effluent treatment facilities. The scope of this effort currently includes:

- Project L-045H, "300 Area Treated Effluent Disposal Facility"
- operations and maintenance of 300 Area TEDF

LIQUID EFFLUENT

FY 1995 MYPP

WBS 1.2.2.1

- upgrades and operations of the 340/307 Facilities (Projects W-337, W-345 and W-353)
- operations and monitoring of the 300 Area Process Trenches
- Project L-070, "300 Area Process Sewer Piping System Upgrade"

1A2311/1.2.2.1.3.0001 - 300 Area Liquid Effluent Facilities Operations

300 Area Operations Management Administration - Provide management direction for 300 Area Liquid Effluent Operations. Includes management control over operations for the 300 Area TEDF and 340 Facility, and sewer systems, employee development, budget and program oversight and reporting, and data development for outyear financial and staffing plans.

300 Area Operations Project Support - Provide analysis, assistance and review of 300 LES projects. Current projects include:

- W-345, 307 Basin Maintenance Upgrades
- W-353, Diverter Upgrades
- W-377, Stack Monitoring
- W-302, Secondary Containment
- W-404, 300 Area Support Facility

300 Area Operations Routines - Provides for routine operator activities to support the 340 Facility and 300 Area TEDF. Activities classified as routines include: housekeeping of the facilities, 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, manning the 300 Area TEDF Control Room, and other miscellaneous tasks required to support operations.

300 Area Operations Surveillance - Provides for surveillance by operators once per shift of the 300 Area TEDF, the 340 Facility, which meets procedural and safety requirements, and for sampling of the 307 Basins once per shift. On a daily basis, the PNL diverter stations will also be inspected per the Memorandum Of Understanding with PNL. This task also provides for weekly and monthly surveillance of facilities and waste storage areas in order to meet RCRA compliance requirements. Surveillance insures that equipment is operating within acceptable parameters and supports Conduct of Operations.

LIQUID EFFLUENT

FY 1995 MYPP

WBS 1.2.2.1

300 Area Operations Waste Management - Provide for waste management activities by operations personnel at the 340 Waste Handling Facility and the 310 Treated Effluent Disposal Facilities. Activities included are: rail car shipments from the 340 Facility in order to meet ninety-day clock requirements (4 times/year), disposal of radioactive solid waste at the 3409 Facility, disposal of hazardous wastes at both 340 Facility and 300 Area TEDF, chemical receipt at the 300 Area TEDF, and other miscellaneous tasks which may be required to meet 40 CFR requirements.

300 Area Facilities Operations - Provides various activities, in many cases from non LES organizations to operate the 340 Facility including the 307 Basins 300 Area TEDF and attendant sewer systems. Among the activities required are: Health Physics, ESQ & QA, Fire Dept. and Patrol, respirators, laundry and custodial, locksmith, light duty fleet, non-regulated waste disposal, sampling (PNL, WSCF, Independent labs), and waste disposal. Much of these activities are an integral part of normal plant activities, driven in some cases by WHC policy or DOE-RL orders or required by special conditions.

340/307 Integrity Assessment - As part of operating the 340 Facility, a Tank Integrity Assessment is required by WAC 173-303. As part of this assessment, video cameras will be installed in the vault and valve pit which aid in the assessment program but also will allow compliance with another requirement of performing daily inspections of these areas. These are high radiation permitted confined areas and as such, required inspections are not performed in the interest of ALARA and personnel safety. The vault is equipped with leak detection instrumentation which will alarm should a leak be detected in the sump. Capability exists to remove any collected liquid in a timely manner.

The assessment is intended to provide evidence of the condition of the material and the capability of the system to contain dangerous waste. Included are: visual examination, leak test, and ultrasonic examinations. An assessment will be performed that will permit conclusions to be made about current conditions and the life expectancy of the 340 Facility waste tank system. Also, the need for cathodic protection will be assessed.

300/340 Conduct of Operations - These facility operational items are required to bring the facility more into compliance with Conduct of Operations requirements. The activities include:

FY 1995 MYPP

LIQUID EFFLUENT

WBS 1.2.2.1

- 1) an improved sampling system to allow representative samples to be taken
- 2) a flush, sampling, and clean-out of the above ground tanks to minimize exposure and to allow their use for storage
- 3) an upgrade of the 1950 vintage control system by routing remote controlled valving and instrumentation to a Programmable Logic Controller and operator interface
- 4) repairs and changes to 3718F Facility to allow use as a maintenance facility
- 5) implementation of video cameras in the 340 Vault to allow remote inspection and allow adequate leak detection
- 6) replacement of HEPA filter casings to allow compliance with nuclear grade HEPA filter casing and testing requirements.

Training - Ensure adequate training is developed and provided to the 300 Area LE Operations staff. This work package supports bargaining unit, exempt, and non-exempt personnel in receiving training to perform job assignments. Included under training are: certification training for operators and management, mandatory and required training for all personnel as directed by the LEF Operations mandatory training matrix, professional and personal development courses, facility drills, and emergency preparedness training. Also included are funds to travel to off-site training, and to attend on-site seminars which will contribute to professional knowledge. These costs cover attendance of classes as well as the development and presentation of classes with support from the WHC Training Organization.

1A2312/1.2.2.1.3.0002 - 300 Area Liquid Effluent Facilities Maintenance

Provide a trained maintenance, planning, maintenance engineering and material control staff to support the 300 Area LE operations. Fully implement the WHC work management system and the required portions of DOE Order 4330.4B. Ensure required corrective maintenance is accomplished in an efficient manner that supports continuity of plant operations.

LIQUID EFFLUENT

FY 1995 MYPP

WBS 1.2.2.1

Prepare and issue maintenance schedules as required by operations, WHC-CM-1-8 and DOE Order 4330.4B

Issue scheduled reports and performance indicators for the job control system.

Implement a preventive maintenance and calibration program and complete scheduled items each month.

Prepare and implement a predictive maintenance program.

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

1A2314/1.2.2.1.3.0004 - 300 Area Liquid Effluent Facilities Engineering

Provide process engineering services and procedure preparation & control and program administration support for 300 Area Liquid Effluent Operations. Tasks include: TEDF operational testing and readiness assessment.

Perform necessary sampling, analysis and reporting to support compliant operations of TEDF under the NPDES permit.

Perform necessary sampling, analysis and facility modifications to ensure that the process operates properly and treatment operations are efficient.

Perform surveillance, preventive maintenance and calibrations at the TEDF to support ongoing treatment of the Process Sewer wastewaters.

Maintain operating procedures, administrative procedures, and other supporting documentation to allow compliant operation of the TEDF and 340 Facility.

Provide program data and administrative support to facilitate preparation of 300 Area LE Operations reports, planning and financial requirements.

Maintain configuration control of the facilities through engineering change notices, as-built programs, and other engineering practices.

LIQUID EFFLUENT

FY 1995 MYPP

WBS 1.2.2.1

Provide support to closure planning for the Process Trench and determine the necessary activities to shift the Trenches to closure following TEDF start up.

1A2316/1.2.2.1.3.0006 - 300 Area Regulatory Compliance/Permitting

Control, coordinate and respond to Regulatory requirements and compliance items for the 300 Area LE Operations to assure full compliance and commitment. Items include:

- Prepare Part A RCRA permit for 340
- Develop Interim Status Compliance Plan for 340
- Prepare draft Part B RCRA permit for 340
- Develop waste analysis plan for 340
- Revise waste Acceptance Criteria for 300 Area RLWS
- Revise 340 Operations Procedures to meet RCRA TSDF requirements
- Perform RCRA TSDF self-assessment for 340 Facility
- Perform self-assessment of 340 regulatory file
- Review Hanford sitewide RCRA Permit for 340 compliance
- Review 340 tank Integrity Assessment report
- Revise 340 Low Level Waste Certification plan
- Develop regulatory file for 300 Area TEDF
- Perform compliance self-assessments for 300 Area TEDF
- Review and revise waste handling procedures for 300 Area TEDF.

**LIQUID EFFLUENT
WBS 1.2.2.1**

FY 1995 MYPP

2.A.2. WBS Dictionary		
WORK BREAKDOWN STRUCTURE DICTIONARY		
1 PROJECT TITLE/PARTICIPANT Liquid Effluent Program	2 DATE August 31, 1994	3 IDENTIFICATION NO.
4 WBS ELEMENT CODE 1A24/1.2.2.1.4	5 WBS ELEMENT TITLE Liquid Effluent Advanced Engineering	
6 INDEX LINE NO.	7 REVISION NO AND AUTHORIZATION Rev 0	8 DATE August 31, 1994
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, functional overhead, G&A/CSP.

B. TECHNICAL CONTENT:

The mission of the Liquid Effluent Advanced Engineering activity is to assist in development of long-range plans, perform engineering evaluations, investigate new feeds to treatment plants, and integrate future liquid effluent projects into the existing liquid effluent treatment facilities and infrastructures. This scope currently includes Advanced Engineering support to the 200 and 300 Area treatment facilities, Miscellaneous Streams, oversight/ utilization of the micro-pilot plant test equipment, completion of

LIQUID EFFLUENT

FY 1995 MYPP

WBS 1.2.2.1

Interim Compliance activities, and, Tritium Waste Removal Technology Evaluation.

1A2411/1.2.2.1.4.0002 - 200 Area Liquid Effluent Advanced Engineering

ETF UV/OX Additional Capacity - Prepare the project Functional Design Criteria (FDC) and Conceptual Design Report (CDR). This includes project documentation required to obtain project authorization to support a FY 1996 General Plant Project (GPP).

ETF Filtration System Upgrade - Prepare an FDC and CDR for upgrading the filtration system at the ETF. These will be prepared for a 1996 GPP.

Enhance ETF Flexibility/Wastewater Feed Logic Path - This activity will help enhance the flexibility of the ETF and the LERF complex to receive various site-wide wastes for treatment. Describe in a supporting document the logic pathway(s) for accepting wastes into the 200 Area Liquid Effluent Treatment Facilities (i.e., LERF, ETF, and TEDF). This report will also identify potential enhancements. The intent is to actively pursue new feed streams for the ETF.

It is assumed that among the needed enhancements are additional lag storage facilities. The storage facilities may be needed for various reasons, including the need to segregate dissimilar wastes or the need to blend dissimilar wastes prior to treatment. Additional lag storage capacity is assumed to be constructed in FY 1998 and be operational in FY 1999.

To enhance the flexibility of the ETF and LERF, perform a 9090 Test at LERF beginning in FY 1995 and ending in FY 1996 to prove waste/liner compatibility. The results of this test will prove to the regulators that the LERF can receive various wastes without suffering degradation of its basin liners. It is assumed that the composite test solutions required by the 9090 test will be arrived at with the help of a Data Quality Objectives (DQO) process.

In order to complete the ETF enhancements, engineers will interface with 200 Area Liquid Effluent Treatment Facilities personnel keeping abreast of developments and problems. Reviews and small unplanned tasks may also be addressed under this activity. Developments and problems may become the basis for justifying out-year projects (e.g., major upgrades to the treatment facilities).

LIQUID EFFLUENT

FY 1995 MYPP

WBS 1.2.2.1

ETF Control System Optimization Study - Prepare a letter report describing the condition of the ETF control system and the required changes. Rework the logic diagrams and prepare a draft OTP.

Any flaws in control system logic identified during this activity will also be addressed. For example, the pH control logic may need to be revised. Any minor instrumentation revision may also be addressed under this activity. For example, a pH controller sample point may need to be moved.

ETF Secondary Waste Study - Perform a study of the secondary waste generated by the 200 Area ETF. Workslope to include: (1) prepare ETF flowsheet, (2) estimate solid waste volume and composition for current planning basis and ETF configuration, (3) identify ETF process and facility changes which may enhance solid waste handling and disposal, (4) evaluate proposed changes (waste from, process and facility impacts, cost, schedule), (5) develop recommended changes, and (6) document study results.

Systems Engineering Support to the Liquid Effluents Program - Current workslope includes: (1) revise LES FY 1995 planning to reflect September 1994 technical baseline developed using systems engineering, (2) update LES mission analysis and functions and requirements to provide a basis for FY 1996 planning, (3) document LES interfaces, (4) provide ongoing support to sitewide systems engineering (document review and input, integration team meetings, coordination with others).

Micro-Pilot Plant Operations - Establish and operate a micro pilot plant at 1706KEL suitable for testing permit exempt quantities of liquid feed streams, scale will be such that testing can be performed under treatability exclusion provisions of WAC Testing frequency. Also that it will remain dynamic, and subject to needs for support of 200 Area Liquid Effluent Treatment Facility startup and operations, and/or other feed streams as identified by Liquid Effluent Advanced Engineering (LEAE).

ETF Process Verification - LERF Biological Study. PNL will conduct an evaluation of the LERF Basin contents to determine what type of pretreatment may be necessary prior to processing through the ETF. Monthly samples will be taken until the start up of the ETF.

LIQUID EFFLUENT

FY 1995 MYPP

WBS 1.2.2.1

1A2412/1.2.2.1.4.0003 - 300 Area Liquid Effluent Advanced Engineering

Alternate Feed Evaluation/Upgrades - It is feasible that liquid waste streams related to soil washing and recovered ground water associated with 300 Area operable unit remediations, as well as other streams, might be processed at the Treated Effluent Disposal Facility. This task evaluates TEDF capabilities, permit allowances, transportation restrictions, generator constraints, and other related aspects. It will explore the possible need for a load-in/load-out facility, supplemental treatment modules, added lag storage capability, permit re-negotiations, etc.

Sludge Drier - The 300 Area Treated Effluent Disposal Facility is scheduled to produce an average of around 30 cu.ft. of de-watered sludge a day. At current solid waste disposal costs, this can involve many millions of dollars over the project's life. This task evaluates various waste minimization options, and will implement any necessary modification or upgrade. While the task title infers that a selection has been made; there are some front-end modifications which could reduce sludge volumes which may prove to be more cost effective than a drier.

1A2413/1.2.2.1.4.0004 - Miscellaneous Streams

Plan and Schedule - Complete revision of the Miscellaneous Streams Plan and Schedule document and update the Miscellaneous Streams inventory and issue the inventory as a supporting document.

Permitting - Prepare WAC 173-216 Permit Applications for selected Miscellaneous Streams and required by Ecology.

Injection Well Registration - Register all Hanford Site injection wells included on the Miscellaneous Streams Inventory.

Miscellaneous Streams Best Management Practices - Provide Advanced Engineering support for implementation of the Miscellaneous Streams Plan and Schedule.

Conduct sampling of Miscellaneous Streams as necessary to support selection of the Best Management Practices (BMP) and WAC 173-216 permitting.

LIQUID EFFLUENT

FY 1995 MYPP

WBS 1.2.2.1

Begin preparation of an engineering study of alternatives to implement regulatory compliance of selected Miscellaneous Streams.

1A2414/1.2.2.1.4.0005 - Tritium Waste Technology Evaluation

Prepare and submit an annual report describing the current state of technology for removing tritium from tritiated effluent. The annual report will satisfy TPA Milestone M-26-05B.

1A2415/1.2.2.1.4.0006 - Interim Compliance

LEMIS Project Management/Support - Maintain the Liquid Effluent Management Information System (LEMIS) data base. Perform an acceptance test of LEMIS. Perform enhancement to the reporting functions within LEMIS and update the user manuals.

Groundwater Impact Assessments - Prepare Groundwater Impact Assessment Reports for the 216-T-1 Ditch, T-4-2 Ditch, and 216-B-3 Pond. Prepare assessment reports for delivery to Ecology.

FY 1995 MYPP

LIQUID EFFLUENT
WBS 1.2.2.1

2.A.2. WBS Dictionary		
WORK BREAKDOWN STRUCTURE DICTIONARY		
1 PROJECT TITLE/PARTICIPANT Liquid Effluent Program	2 DATE August 31, 1994	3 IDENTIFICATION NO.
4 WBS ELEMENT CODE 1A25/1.2.2.1.5	5 WBS ELEMENT TITLE Phase II Effluent Treatment/Disposal	
6 INDEX LINE NO.	7 REVISION NO AND AUTHORIZATION Rev 0	8 DATE August 31, 1994
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, functional overhead, G&A/CSP.

B. TECHNICAL CONTENT:

This workscope implements BAT/AKART at Phase II stream facilities to treat effluents prior to introduction to the 200 Area TEDF for disposal. The 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 400 Area Secondary Cooling Water will not be discharged to the 200 Area TEDF.)

LIQUID EFFLUENT

FY 1995 MYPP

WBS 1.2.2.1

1A25/1.2.2.1.5.0001 - Phase II Effluent Treatment and Disposal

Phase II Permitting - Permitting of the Phase II effluents involves the approval of the 240 Engineering Report and BAT/AKART implementation. Based on the SAP requirements one sample event is to take place at each the 242-A evaporator cooling water and steam condensate, and the 244-AR Vault cooling water effluent streams. The sampling data will be tabulated and reported in the existing document. HASM will provide analytical and data validation services for samples collected (or WSCF if able). The Sample and Mobile Labs will provide all services necessary to collect and ship the samples. Quality assurance will provide general quality assurance support. Data will be entered into the LEMIS database.

Phase II Design Review - Provide design reviews for project W-252. Reviews will cover safety, QA, fire protection and facility interface at the five facilities as well as the functional interface to Project W-049.

Phase II Safety Documentation Review - Update PSARs for the affected facilities. (B-Plant, 242-A, 244-AR, 283/284E, 241-A)and prepare Fire Hazards Analysis.

Phase II Preliminary Safety Equipment List - Prepare ADP Pre-procurement Plan.

Systems Engineering - Provide programmatic, technical, budgetary, and management support to the ACD and Definitive Design effort on Project W-252.

Project Management - Provide project management for Project W-252 Advanced Conceptual Design activities during the first quarter of FY 95. Provide financial analyst services for the project management activities for Project W-252. Provide constructability and estimate review of the Definitive Design package.

**LIQUID EFFLUENT
WBS 1.2.2.1**

FY 1995 MYPP

2.A.2. WBS Dictionary		
WORK BREAKDOWN STRUCTURE DICTIONARY		
1 PROJECT TITLE/PARTICIPANT Liquid Effluent Program	2 DATE August 31, 1994	3 IDENTIFICATION NO.
4 WBS ELEMENT CODE 1A8A/1.2.2.1.6	5 WBS ELEMENT TITLE Miscellaneous Stream BAT Implementation	
6 INDEX LINE NO.	7 REVISION NO AND AUTHORIZATION Rev 0	8 DATE August 31, 1994
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, functional overhead, G&A/CSP.

B. TECHNICAL CONTENT:

The Miscellaneous Stream activity was established under ADS 2300-0 to inventory all liquid effluent streams not already being managed under Phase I and Phase II Stream Programs (Hanford's 33 primary waste streams) and to bring those effluent streams into full compliance with Washington State and federal regulations. A candidate line item is being established based on the assumption that there are a significant number of streams which will require treatment to implement BAT/AKART prior to disposal.

WHC-SP-1097

LIQUID EFFLUENT

FY 1995 MYPP

WBS 1.2.2.1

Work is scheduled to begin in FY 1996 with the preparation of the FDC and CDR with permitting plans as required.

**LIQUID EFFLUENT
WBS 1.2.2.1**

FY 1995 MYPP

2.A.2. WBS Dictionary		
WORK BREAKDOWN STRUCTURE DICTIONARY		
1 PROJECT TITLE/PARTICIPANT Liquid Effluent Program	2 DATE August 31, 1994	3 IDENTIFICATION NO.
4 WBS ELEMENT CODE 1A8B/1.2.2.1.9	5 WBS ELEMENT TITLE 340 Facility Secondary Containment (W-302)	
6 INDEX LINE NO.	7 REVISION NO AND AUTHORIZATION Rev 0	8 DATE August 31, 1994
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, functional overhead, G&A/CSP.

B. TECHNICAL CONTENT:

The 340 Facility currently utilizes stainless steel tanks set in concrete vaults. These vaults are underground and unlined, and do not meet the requirements for secondary containment. These tanks are not in compliance for the interim storage or permitted storage of dangerous waste. However, there is leak detection capability within the vault and there is a sump to remove leakage from the tank. The piping system to the 340 valve box and the piping from 340 to 340A and 340B (the load-out facility) have double containment. The piping from the valve box to the 340 tanks is

LIQUID EFFLUENT

FY 1995 MYPP

WBS 1.2.2.1

single valved. The liquid waste in the system contains dangerous waste constituents as defined in WAC 173-303-040 (18). The RCRA and WAC require that tank and piping systems containing dangerous wastes (constituents) have secondary containment and leak detection. Project W-302 will meet these requirements.

1A8B11/1.2.2.1.9.0001 - 340 Facility Secondary Containment (W-302)

Complete FDC revisions as necessary and prepare a CDR for Project W-302, "340 Facility Secondary Containment and Leak Detection", which is intended to 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.

FY 1995 MYPP

**LIQUID EFFLUENT
WBS 1.2.2.1**

2.B. Work Breakdown Structure Index and Programmatic Responsibility Assignment Matrix					
PROGRAM ELEMENT	ACTIVITY	COST ACCOUNT	TITLE	RESPONSIBLE MANAGER	RESPONSIBLE ORGANIZATION
1A2			Liquid Effluent	A.J. DiLiberto	86100
	1A21		Program Office	A.J. DiLiberto	86100
		1A2111	Program Management	A.J. DiLiberto	86100
		1A2113	LERF Operations	W.E. Ross	7C800
	1A22		200 Area ETF Operations	B.F. Weaver	86200
		1A2211	200 Area Liquid Effluent Facilities Operations	B.F. Weaver	86220
		1A2212	200 Area Liquid Effluent Facilities Maintenance	B.F. Weaver	86260
		1A2213	200 Area Liquid Effluent Facilities Operations Mgmt & Support	B.F. Weaver	86240
		1A2214	200 Area Liquid Effluent Facilities Engineering	B.F. Weaver	86230
		1A2215	200 Area Regulatory Compliance/Engineering	B.F. Weaver	86270
	2A22		200 Area ETF Capital Equipment	B.F. Weaver	86270
	1A23		300 Area TEDF Operations	D.W. Lindsey	86700
		1A2311	300 Area Liquid Effluent Facilities Operations	L.W. Roberts	86710
		1A2312	300 Area Liquid Effluent Facilities Maintenance	G.L. Kunkle	86720
		1A2314	300 Area Liquid Effluent Facilities Engineering	D.W. Lindsey	86730
		1A2316	300 Area Regulatory Compliance/Permitting	R.W. Szelmezcza	86700
	2A23		300 Area TEDF Capital Equipment	D.W. Lindsey	86700
	1A24		Liquid Effluent Advanced Engineering	J.D. Williams	86300
		1A2411	200 Area Liquid Effluent Advanced Engineering	J.D. Williams	86300

2.B. Work Breakdown Structure Index and Programmatic Responsibility Assignment Matrix					
PROGRAM ELEMENT	ACTIVITY	COST ACCOUNT	TITLE	RESPONSIBLE MANAGER	RESPONSIBLE ORGANIZATION
		1A2412	300 Area Liquid Effluent Advanced Engineering	R.T. Stordeur	86300
		1A2413	Miscellaneous Streams	S.J. Skurla	86300
		1A2414	Tritium Technology Development	W.L. Allen	86300
		1A2415	Interim Compliance	P.M. Olson	86300
		4A2417	ETF Flexibility Enhancements (FY97 GPP)	J.D. Williams	86300
		4A2418	ETF Instrument Optimization (FY98 GPP)	J.D. Williams	86300
		4A2428	ETF Secondary Organic Removal (FY98 GPP)	J.D. Williams	86300
		4A2419	ETF Recycle Capability (FY99 GPP)	J.D. Williams	86300
		4A2429	ETF Offgas treatment (FY99 GPP)	J.D. Williams	86300
		4A2416	ETF Filtration System Upgrade (FY96 GPP)	J.D. Williams	86300
		4A2426	ETF UV/OX Additional Capacity (FY96 GPP)	J.D. Williams	86300
		4A2427	ETF Additional Radionuclide Separation (FY97 GPP)	J.D. Williams	86300
		4A2317	300 Area TEF Alternate Feed Upgrade (FY97 GPP)	J.D. Williams	86300
		4A2316	300 Area Office Support Facility (FY98 GPP)	J.D. Williams	86300
		4A2327	300 Area TEF Sludge Drier (FY97 GPP)	J.D. Williams	86300
	1A25		Phase II Effluent Treatment/ Disposal	J.D. Williams	86300
		1A2502	BAT Implementation Phase II Streams	C.E. Hatch	86300
	3A25		Proj W-252, Phase II BAT Impl	P.K. Sato	7F880
1A8			Liquid Effluent Future Projects	A.J. DiLiberto	86100
	1A8A		Misc Streams BAT Implementation	J.D. Williams	86300
		1A8A11	Misc Streams BAT Implementation	J.D. Williams	86300
		3A8A11	Project W-xxx, Misc Stream BAT	J.D. Williams	86300

2.B. Work Breakdown Structure Index and Programmatic Responsibility Assignment Matrix					
PROGRAM ELEMENT	ACTIVITY	COST ACCOUNT	TITLE	RESPONSIBLE MANAGER	RESPONSIBLE ORGANIZATION
	1A88		340 Facility Secondary Containment	L.W. Roberts	86710
		1A8811	Project W-302, 340 Facility Secondary Containment	L.W. Roberts	86710
		3A8811	Project W-302, 340 Facility Secondary Containment	D.S. Takasumi	7FB20

LIQUID EFFLUENT

FY 1995 MYPP

WBS 1.2.2.1

LIQUID EFFLUENT LOGIC DIAGRAMS

During the development of the Liquid Effluent Program, logic diagrams were developed that include elements of key decisions, major items, and interfaces necessary to meet its objectives. A logic diagram was developed for each project activity within the program. Figure 2.C-1 is a general logic diagram which displays the activities required to complete each projects mission. Most of the activities have been completed for the 200 Area ETF, 200 Area TEDF, and 300 Area TEDF activities. Only the operational readiness activities and continual operations remain for the 3 facilities. Narratives describing each of the remaining activities is provided. The logic in these diagrams is based on: the mission and objectives of the program, constraints on the program, including regulatory requirements, committed milestones, and functions necessary to complete the mission. A complete logic diagram is included for the future activities in the Miscellaneous Stream and Phase II BAT/AKART Implementation (Project W-252) activities within the Liquid Effluent Program. Also included is the New Feed Alternatives Logic Diagram. This diagram reflects the range of alternatives for disposition of any new liquid effluents. This diagram includes summary narrative which describes the process alternatives.

The main interfaces with each different program area outside the Liquid Effluent Program responsibility at Hanford was summarized. All known inputs and outputs from each liquid effluent facility was identified for assistance in integrating all Hanford site activities. This chart is included at the end of this section.

200 AREA EFFLUENT TREATMENT FACILITY OPERATIONS

The remaining program logic for the 200 Area Effluent Treatment Facility (ETF) (Project C-018H) is depicted in Figure 2.C-1. Most of the activities have been completed to date with only the operational readiness activities and continual operations remaining. Only these areas of the logic are applicable to this activity and are explained in the narrative which follows.

Training

Training materials are being developed from actual facility design drawings. Ramp-up of staff will be completed by November 1994 with training through fiscal year 1995.

LIQUID EFFLUENT

WBS 1.2.2.1

FY 1995 MYPP

Operational Readiness Review

The operational readiness review will begin in the fall of 1994 when construction of the facility is nearing completion. The ORR will continue through start-up in June 1995.

Safety Documentation

The FSAR will be released prior to start-up in June 1995.

Permits

Air, water quality and disposal permit applications have already been completed to provide adequate regulator and public reviews to support start-up in June 1995.

Operation

The facility is scheduled for start-up in June 1995. Its initial campaign will treat the inventory in the LERF basins after which it will have a direct connection to the 242-A Evaporator.

Data Validation

Data validation is done to confirm that the analytical data received from the laboratory is of high quality and defensible to Regulators and the Public.

Data Reporting

Data reporting is performed via an on-line computer system with which personnel who have been cleared for access will be able to obtain data which has been cleared for general access.

Treatment

The 242-A Evaporator process condensate (PC) will be run through a treatment train consisting of filtration, pH adjustment, UV oxidation, degassification, reverse osmosis and ion exchange. The product will then be stored in a verification tank until released to the disposal site.

Sampling and Analysis

WHC-SP-1097
LIQUID EFFLUENT PROGRAM LOGIC DIAGRAM

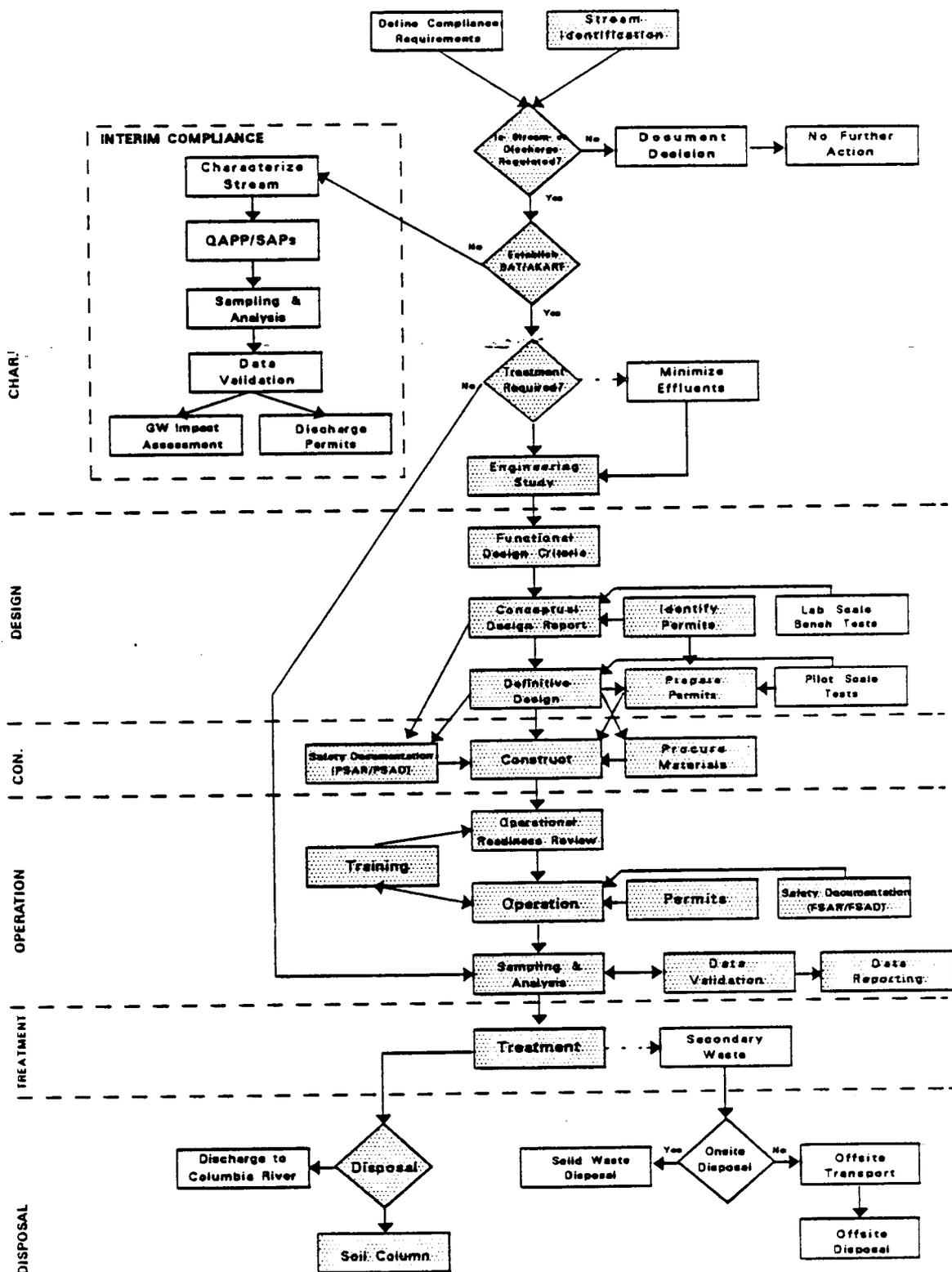


Figure 2.c-1

LIQUID EFFLUENT

FY 1995 MYPP

WBS 1.2.2.1

The 200 Area ETF product will be sampled and analyzed prior to any discharge to the disposal site in accordance with applicable requirements. The product will be held in one of the three 670,000 gallon verification tanks until the analytical results are received. The rapid turn-around required to support successful operation of the ETF will be accomplished by the Waste Sampling and Characterization Facility at the Hanford site.

Secondary Waste

The process will generate a secondary waste in the form of a dry powder. There will also be periodic generation of solid wastes in the form of RO membranes, filter cartridges, IX resins and GAC adsorbent. These will all be disposed of on-site in accordance with current solid waste disposal policies.

Soil Column

The liquid effluent product from the ETF process train will be routed to a Washington State Approved Land Disposal System (SALDS) for disposal to the soil column.

200 AREA TREATED EFFLUENT DISPOSAL FACILITY OPERATIONS

The remaining program logic for the 200 Area Treated Effluent Disposal Facility (200 TEDF) (Project W-049H) is also depicted in Figure 2.C-1. Only the operational assessment and continual operations activities remain. These are explained in the narrative which follows.

Operational Readiness Assessment (ORA)

The Operational Readiness Assessment is scheduled to be completed by June 1995. Although some operational and maintenance procedures will be prepared for the 200 TEDF, the bulk of operational readiness assessment will be conducted at the facilities as part of implementation of BAT/AKART.

Training

Operational training is scheduled to begin in February 1995 and will continue through to startup in June 1995. The training will familiarize responsible staff with standard operations and maintenance procedures, emergency response procedures, and regulatory

LIQUID EFFLUENT

FY 1995 MYPP

WBS 1.2.2.1

requirements for discharge of effluent under the WAC 173-216 groundwater discharge permit.

Operations

The 200 TEDF (including Phase II [Project W-252] effluents) will be operated and maintained through the 200 ETF staff. Instrumentation located at each facility will be directed into the 200 ETF central control room.

Permits

The draft WAC 173-216 discharge permit application was submitted to Ecology in August 1994.

Sampling and Analysis

Each facility will be responsible for conducting the sampling and analysis of its own waste stream. A Sampling and Analysis Plan (SAP) & Quality Assurance Program Plan (QAPP) will be required from each facility which describes the methodology and frequency of required sampling.

Data Validation and Reporting

Data collected as part of the facility sampling efforts will be validated and reported to the 200 ETF operational staff. This information will be included as part of the WAC 173-216 permit requirements.

Treatment

The 200 TEDF is not a treatment facility and has no capacity to intercept or treat wastewater discharged into the pipeline.

Secondary Waste

No secondary waste from the 200 TEDF will be produced.

Soil Column Wastewater Disposal

BAT/AKART for the facilities discharging to the 200 TEDF call for the implementation of treatment technologies at the source of the wastewater prior to discharge to the collection system. BAT/AKART will provide the basis for discharge limits for the individual

LIQUID EFFLUENT

FY 1995 MYPP

WBS 1.2.2.1

streams. Streams compliant with discharge limits will be discharged into the TEDF.

300 AREA TREATED EFFLUENT DISPOSAL FACILITY OPERATIONS

The program logic for the 300 Area Treated Effluent Disposal Facility (300 TEDF) (Project L-045H) is also depicted in Figure 2.C-1. The only remaining activities are the operational readiness assessment and continual operations. These are explained in the narrative which follows.

Operational Readiness Assessment (ORA)

The operational readiness assessment will begin in August 1994 and will continue through start-up in December 1994.

Permits

Submittals of NEPA, Clean Air Act, and Clean Water Act permit applications and regulatory requirements were provided to allow adequate regulator and public reviews to support start-up in December 1994.

Operation

The facility is scheduled for start-up in December 1994.

Sampling and Analysis

A separate Sampling and Analysis Plan (SAP) was developed for the Columbia River in August 1991 and implemented to support the NPDES permitting requirements. The 300 Area SAP is being revised to reflect current NPDES discharge requirements.

Data Validation and Reporting

Data validation is done to confirm that the analytical data received from the laboratory is of high quality and defensible to Regulators and the Public. Data reporting is performed via an on-line computer system with which personnel who have been cleared for access will be able to obtain data which has been cleared for general access.

FY 1995 MYPP

LIQUID EFFLUENT

WBS 1.2.2.1

Treatment

The current scope for the treatment facility includes continuous treatment, diversion capability, and discharge to the Columbia River. The treatment units provide: precipitation and clarification for metals removal, IX for mercury removal, and UV peroxide oxidation for organic destruction.

Secondary Waste

The treatment process will generate sludge as a secondary waste. A filter press for "de-watering" of the sludge is provided under the current scope of operations. In addition, there will also be solid wastes in the form of IX resins. These will all be disposed of on-site per current solid waste disposal policies.

Effluent Disposal

The soil column will not be used for discharge of the treated liquid effluent. Instead, discharge will be routed to the Columbia River under an NPDES permit.

PHASE II STREAMS (Project W-252)

The program logic for Phase II Streams (Project W-252) is depicted in Figure 2.C-2. The shaded areas of the logic are applicable to this activity and are explained in the narrative which follows.

Compliance Requirements

Section 304 of the Clean Water Act (Water Pollution Control Act of 1972) requires the application of Best Available Technology (BAT) economically achievable effluent limits to discharges of wastewater containing toxic and nonconventional pollutants. All wastewaters proposed for discharge to waters of Washington State must be provided with All Known, Available, and Reasonable methods of prevention, control and Treatment (AKART). These terms describe the treatment level required for discharge to waters of the United States and Washington State.

Stream Identification

This project accounts for nine of the fourteen streams designated as Phase II Streams in the original response the congressional mandate

EFFLUENT TREATMENT PROGRAM LOGIC DIAGRAM
W-252

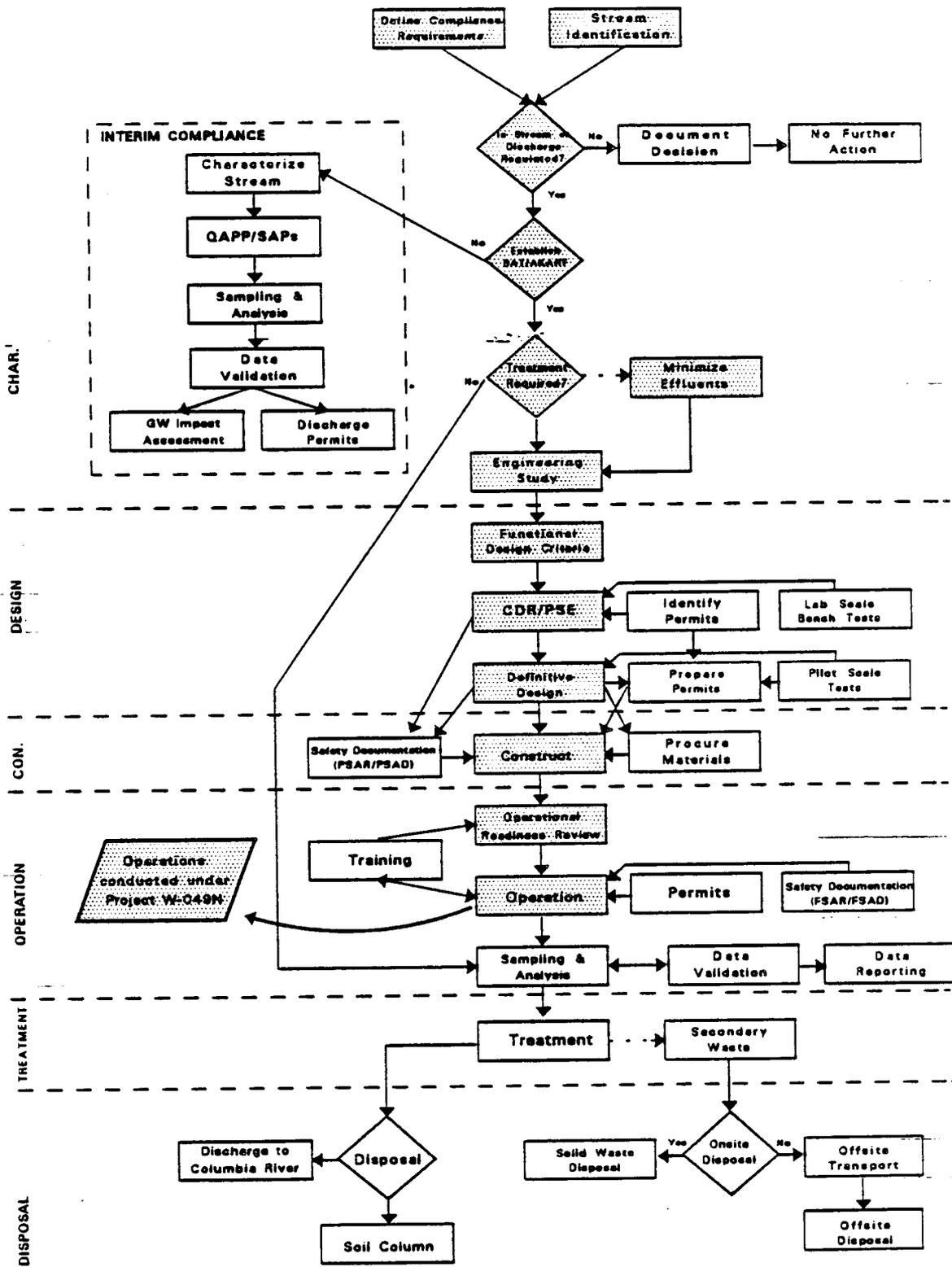


Figure 2.C-2

LIQUID EFFLUENT

FY 1995 MYPP

WBS 1.2.2.1

(1987) to cease using the soil column to treat and retain suspended or dissolved contaminants from liquid waste streams. The Phase II streams are primarily wastewaters from operations not in direct contact with chemical or radiological processes.

Is Stream or Discharge Regulated?

State and Federal regulations for liquid effluents were utilized to determine if the streams identified are potentially regulated.

Establish BAT/AKART

Each effluent stream has been evaluated to establish the Best Available Technology / All Known and Reasonable Treatments. This evaluation served as the basis for further decisions regarding stream minimization or treatment. The BAT/AKART evaluation established whether or not an effluent is required to be treated prior to discharge.

Engineering Study

The engineering study on the nine remaining Phase II streams established BAT/AKART for each stream. The W-252 Project will only minimize waste, no additional treatment is necessary, prior to discharge. Implementation of BAT/AKART will reduce the annual discharge flow 95% and the annual toxic mass by 91%.

Project W-252 is a FY 1995 Line Item with implementation complete by October 1997 as follows:

- 100 Area (183-D Filter Backwash) - No action required, stream eliminated
- 400 Area Secondary Cooling Water - no action required, currently meets BAT/AKART
- 200 Area - a common collection/disposal system for 150 gpm includes piping to collect the six streams and discharge to a percolation pond
 - 241-A Tank Farm Cooling Water - closed loop cooling w/wet cooling tower (CT)
 - 284-E Powerplant Wastewater - process optimization, level control, clarification

LIQUID EFFLUENT

FY 1995 MYPP

WBS 1.2.2.1

- 244-AR Vault Cooling Water - equipment replacement, closed loop cooling
- B Plant Cooling Water - closed loop cooling system
- 242-A Evaporator Cooling Water - closed loop cooling with wet cooling tower, equipment replacement
- 242-A Evaporator Steam Condensate - closed loop secondary heat exchanger with recirculation to the 284-E Powerplant
- Note that 241 AY/AZ Steam Condensate effluent has been eliminated.

Functional Design Criteria (FDC)

The FDC has been written to define the general criteria needed to provide the new pipelines and modifications to existing facilities required for the BAT/AKART implementation in the 100 Area and the 200 Area. The project will also provide tie-ins to the 200 Area Treated Effluent Disposal Facility (TEDF) to allow for wastewater disposal after BAT/AKART has been applied. Coordinating with the TEDF design will eliminate duplicate design efforts and will minimize costs.

Conceptual Design Criteria (CDR)/Preliminary Safety Evaluation (PSE)

A Conceptual Design Report was written to establish design parameters and identify project costs to allow for project validation in May 1993. A Preliminary Safety Evaluation (PSE) was also prepared to support the CDR. Regulatory permits required will be detailed in the CDR. At this time the only permit required is a modification to the 200 Area TEDF 216 Wastewater Discharge Permit. NEPA documentation was completed prior to validation with the submittal of a Categorical Exclusion.

Definitive Design/Construction

This project will start definitive design in January 1995 and will continue through the "CONSTRUCTION" and "OPERATION" logic paths as shown, however specific details are not available at this time.

Operation/Treatment/Disposal

There will be no treatment for these Phase II streams. This project is a waste minimization project. As shown in the diagram, the wastewater will be collected and disposed of utilizing the 200 Area TEDF piping system and soil column disposal site.

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FY 1995 MYPP

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MISCELLANEOUS STREAMS

The original logic diagram was submitted to the regulators in January 1994 for their review and approval in the document, "Plan and Schedule for Disposition and Regulatory Compliance for Miscellaneous Streams". Currently, the logic has been revised and is continuing to undergo negotiation with the regulators. The revised program logic for the Miscellaneous Streams is depicted in Figure 2.C-3a and Figure 2.C-3b and is the baseline used for planning this activity in the FY95 MYPP/FYWP.

NEW FEED STREAM ALTERNATIVES LOGIC DIAGRAM

The logic Diagram shown in Figure 2.C-4 was developed to present the logic utilized by the Advanced Engineering group when defining the liquid effluent management options for any potential new effluent stream or new feed streams to the treatment facilities. Key liquid effluent management decisions include:

- determining the feasibility of source control implementation
- identifying whether treatment and/or interim liquid effluent storage are necessary
- determining appropriate treatment technologies based on treatment requirements and expected and/or measured effluent characteristics.

First, existing and proposed sources of liquid effluents are characterized based on a combination of sample analyses, process knowledge, effluent monitoring records, and engineering calculations. If source controls are technically and economically achievable and are warranted based on stream characteristics, then a decision is made whether to apply source controls to minimize or eliminate subsequent treatment.

The decision to treat a specific effluent is based on treatment requirements and effluent quality after application of source controls. The treatment requirements are developed from regulatory requirements, DOE Orders, and commitments to federal and state agencies. Effluents not normally requiring treatment may periodically require treatment if indicated by the effluent quality. Effluent generation, treatment, and disposal schedules are compared to identify whether interim storage is necessary. The type of interim storage is dependent on required capacities, storage duration, and effluent characteristics.

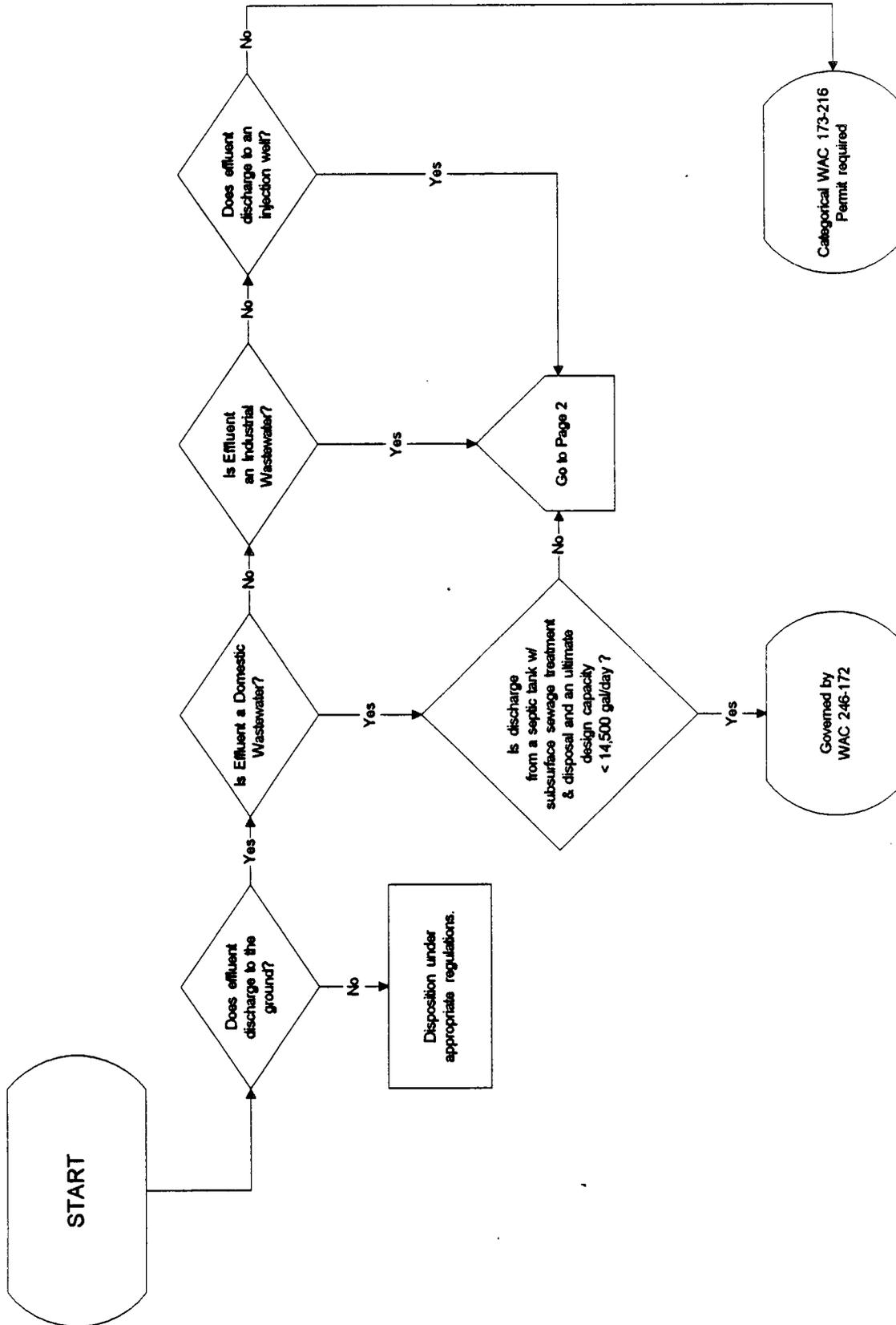


Figure 2.C-3

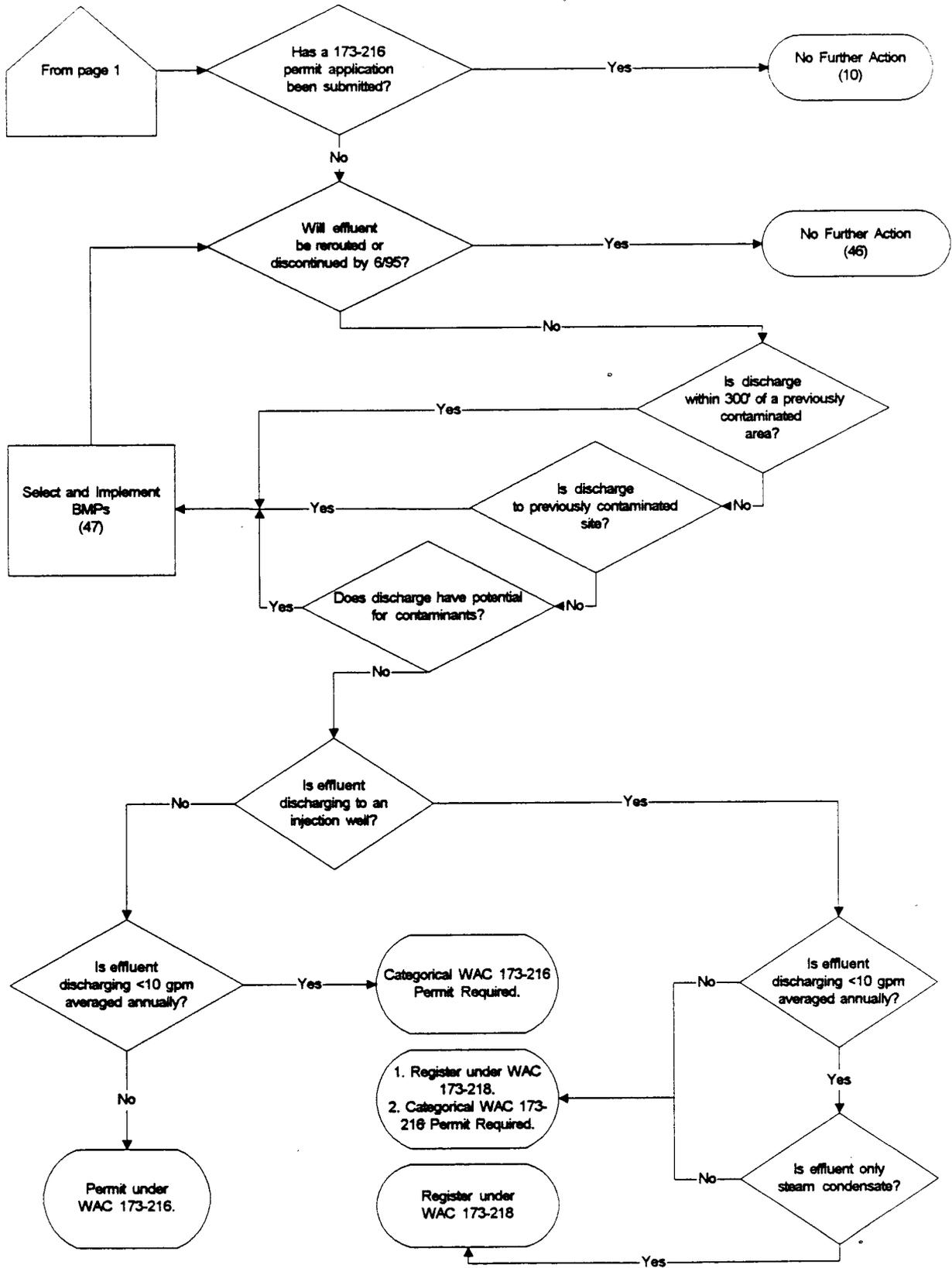
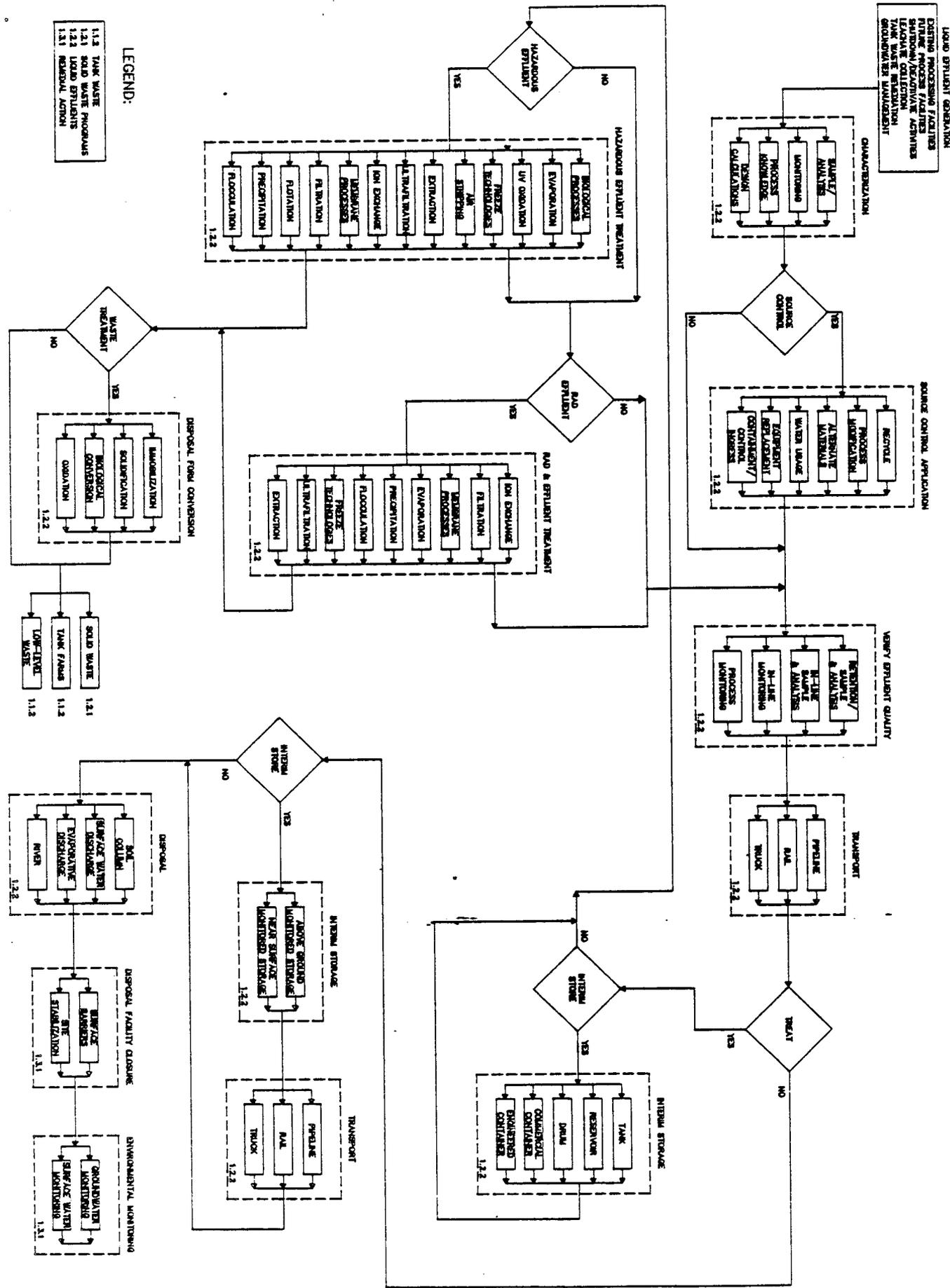


Figure 2.C-3b

LIQUID EFFLUENTS LOGIC DIAGRAM



WMC-SP-1097

Figure 2.C-4

084/10/2-7-01-1

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FY 1995 MYPP

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The appropriate treatment technologies to satisfy treatment requirements are determined based on technical and economic achievability. Treatment technologies are determined for effluents contaminated with hazardous and radioactive constituents. Identification of appropriate treatment technologies is integrated with treatment capabilities and disposal permitting activities.

The effluent is discharged for transport to the disposal site if effluent quality satisfies disposal requirements. Interim storage may be necessary if the disposal site is not available to receive the effluent. Wastes generated from the treatment processes are treated to meet disposal form requirements if necessary or economically beneficial.

FY 1995 MYPP

LIQUID EFFLUENT
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LIQUID EFFLUENT INTERFACES

The following chart identifies the main interfaces that each liquid effluent facility has with other programs at the Hanford site.

LIQUID EFFLUENT INTERFACES

KNOWN INTERFACES:

Last update:

WCA - 08/09/94

FACILITY	INPUTS	OUTPUTS	TPA MILESTONES	NOTES
200 Area ETF (HEC Project C-018)	Process condensate as feed from TWRS/242A Evap		Diliberto M-17-00A M-17-14 M-17-29	LERF interim storage.
	Landlord provides raw/sanitary water/ electricity. Possible future upgrade projects in 200 East Area.		C-Dow	
		Secondary waste to Solid Waste/Mixed Waste Storage and Disposal through WRAP 2A.		Sanitary waste to permitted septic field. Trash to landfill.
		Process control and permit discharge record samples to Analytical Labs		LERF interim status Permit samples to Analytical labs.

WHC-SP-1097

FY 1995 MYPP

LIQUID EFFLUENT
WBS 1.2.2.1

FACILITY	INPUTS	OUTPUTS	TPA MILESTONES	NOTES
		Treated Liquid effluent to permitted disposal site		
		Cooling tower blowdown to permitted disposal site		
200 Area TEDF (HEC Project W-049)	TWRS/Phase II streams as feed into pipeline/disposal system		DiLiberto M-17-08 Wojtasek M-17-00A M-17-08B M-17-18 M-17-00B M-43-01	Pipeline/Disposal site by HEC Project. Startup by LE Program. BAT/AKART by TWRS expense funded modifications for 242S Evap Steam condensate. BAT/AKART by LE Project W-252 for 244AR; 242A Evap Steam Condensate; 242A Evap Cooling water and (241-A cooling water tie-in only). TWRS Project W-030 for 241-A Cooling water

MHC-SP-1097

FY 1995 MYPP

LIQUID EFFLUENT
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FACILITY	INPUTS	OUTPUTS	TPA MILESTONES	NOTES
	Solid waste/T-Plant Phase I and II streams as feed into pipeline/disposal system		McCarthy M-17-00A M-17-08B M-17-41 M-17-42	BAT/AKART by HEC Project W-291 for T-Plant wastewater; T-Plant lab wastewater
	Analytical labs/222-S lab Phase I stream as feed into pipeline/disposal system		Deichman M-17-00A M-17-08B M-17-39	BAT/AKART by Lab Project W-124 for 222-S lab wastewater.
	Landlord/284-W/E powerplants Phase II streams as feed into pipeline/disposal system		C-Dow M-17-00A M-17-38 M-17-34 M-17-00B	BAT/AKART by LE Project W-291 for 284W powerplant/283W water filter plant. Eliminate 216-W Laundry Crib stream BAT/AKART by LE Project W-252 for 283E powerplant/283E water filter plant.

MHC-SP-1097

FY 1995 MYPP

LIQUID EFFLUENT
WBS 1.2.2.1

FACILITY	INPUTS	OUTPUTS	TPA MILESTONES	NOTES
	Transition facilities/B-Plant Phase I and II streams as feed into pipeline/disposal system		Cartmell M-17-00A M-17-08B M-17-04 M-17-00B	BAT/AKART by HEC Project W-007H for B-Plant chemical sewer. BAT/AKART by LE Project W-252 for B-Plant cooling water.
	Transition facilities/PUREX Phase I stream as feed into pipeline/disposal system		Cartmell M-17-00A M-17-08B M-17-22 M-17-23 M-17-24	BAT/AKART by Transition Programs for PUREX Chemical sewer.
	Transition facilities/U03-U plant Phase I streams to eliminate streams.		Cartmell M-17-00A M-17-08B M-17-17 M-17-19	BAT/AKART by HEC Project W-291 for U03/U-plant wastewater; and process condensate. (also builds Load-in/Load-out station at 200 ETF)

MHC-SP-1097

FY 1995 MYPP

LIQUID EFFLUENT
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FACILITY	INPUTS	OUTPUTS	TPA MILESTONES	NOTES
	Transition facilities/PFP Phase I stream and 234-5Z miscellaneous stream as feed into pipeline/disposal system		Cartmell M-17-00A M-17-08B M-17-16	BAT/AKART by HEC Project B-680 for PFP wastewater (Completed project) BAT/AKART by Transition facilities Project L-116 for 234-5Z misc stream.
	Transition facilities/2101M Phase I stream to eliminate stream.		Cartmell M-17-00A M-17-08B M-17-43	BAT/AKART by HEC Project W-291 for 2101M wastewater.
		Permit discharge record samples to Analytical labs		
		Treated liquid effluent to permitted disposal ponds		
Phase II STREAMS (LE Project W-252)	Landlord fire system/raw/sanitary water upgrades (Project B-604) in 200 East	(ALL Phase II Streams will tie into 200 TEDF)	C-Dow	NOTE: <u>Descope of project W-252-H could impact project B-604.</u>

WHC-SP-1097

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1995 MYPP

FACILITY	INPUTS	OUTPUTS	TPA MILESTONES	NOTES
300 Area TEDF (HEC Project L-045)	PNL/laboratory facilities process condensates as feed		Massey	PNL labs support ongoing TWRS characterization work.
	WHC 300 Area facilities			
	Landlord upgrades (Project L-070) to process sewer pipeline.		C-Dow M-17-06J M-17-06K	
	Landlord provides 300 Area Sanitary water/electricity		C-Dow	
		Secondary solid waste to Solid Waste/Low-level Waste disposal and ion exchange resin to RMW.		Sanitary waste to Richland POTW via Landlord Project V-784. Trash to landfill.
		Process control and permit discharge record samples to Analytical Labs		
		Treated liquid effluent to permitted outfall river disposal.		

WHC-SP-1097

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1995 MYPP

FACILITY	INPUTS	OUTPUTS	TPA MILESTONES	NOTES
340 Facility	PNL/laboratory facilities radioactive process sewer		Massey	PNL labs support ongoing TWRS characterization work.
	Landlord facilities provides electrical/steam/sanitary water		C-Dow	
		Solid waste to Solid waste/Mixed waste storage and Landfill		Sanitary waste to Richland POTW via Landlord Project V-784. Trash to landfill.
		Liquid radioactive waste shipped in Solid Waste/ railroad tankcars to TWRS/204AR facility		
		Shipping record samples to Analytical Labs		
Misc. Streams	All programs: Landlord/Spent fuels/TWRS/Transition facilities.		Cartmell C-Dow Deichman Fulton McCarthy Wojtasek	BAT/AKART by LE FY2000 Line Item. Best MGMT Practices by generators.

WMC-SP-1097

LIQUID EFFLUENT

WBS 1.2.2.1

FY 1995 MYPP

FUTURE POSSIBLE INTERFACES:

Several potential alternative wastes that could be treated in the 200 Area ETF and will be investigated are as follows:

- o purge water
- o N-Reactor Basin water
- o K-Basin water
- o Groundwater
- o Leachate from the burial trenches
- o WRAP 2A waste water
- o Soil washing water
- o Waste water from Low level Waste Vitrification Plant
- o Upset waste water from facilities connected to 200 TEDF
- o Double/Single shell tank sludge wash water

Future possible outputs could include reuse of ETF treated liquid effluents for TWRS tank sludge washing and cleanout of tanks.

MHC-SP-1097

LIQUID EFFLUENT PROGRAM
Program Master Baseline Schedule
09/23/94

Program Element Level/Milestones
Fiscal Years 1995-2001

Description	Type	MS #	1994		1995			1996			1997			1998			1999			2000			2001	
			JAN	MAY	SEP	JAN	MAY	SEP	JAN	MAY	SEP	JAN	MAY	SEP	JAN	MAY	SEP	JAN	MAY	SEP	JAN	MAY		
1A2111 - PROGRAM MANAGEMENT																								
1A2111	PROGRAM MANAGEMENT																							
1A2111010A11	M-26-03 CEASE DISCHG. 242-A EVAP. LERF BASINS	TPA																						
1A2111010A13	M-17-08B IMPL. BAT/AKART-200A TEDF STREAMS	TPA																						
1A2111010A14	M-17-00A COMPLETE LETF PHASE I STREAMS	TPA																						
1A2111010A15	M-26-04 REM. ALL HAZ. WASTE RESIDUE FROM LERF	RL																						
1A2111010A16	M-17-10 CEASE DISCH. TO HAZ. LAND DISP. UNITS	TPA																						
1A2113 - LERF OPERATIONS																								
1A2113	LERF OPERATIONS																							
HEC PROGRAM ACTIVITIES																								
1A2114	HEC PROGRAM ACTIVITIES																							
TRANSITION PROJECTS																								
1A2115	TRANSITION PROJECTS ACTIVITIES																							
1A2115010A05	M-17-04 CEASE DISCHARGE TO 216-B-3 POND SYS.	TPA																						
1A2115010A15	M-17-16 CEASE DISCHARGE TO 216-Z-20 CRIB	TPA																						
1A2115010A25	M-17-22 CEASE DISCHARGE PUREX ST. COND 216-B-3	TPA																						
1A2115010A26	M-17-23 CEASE DISCH. PUREX PL COOLING 216-B-3	TPA																						
1A2115010A27	M-17-24 CEASE DISCH. PUREX CHEM. SEVER 216-B-3	TPA																						
1A2115010A33	M-17-17 CEASE DISCHARGE U03 WW/PC TO 216-U-14	TPA																						
1A2115010A34	M-17-19 CEASE DISCHARGE 216-U-17 CRIB	TPA																						
ANALYTICAL SERVICES																								
1A2116	ANALYTICAL SERVICES ACTIVITIES																							
1A2116010A07	M-17-39 CEASE ALL DISCHARGES TO 216-S-26 CRIB	TPA																						
TANK WASTE REMEDIATION SERVICES																								
1A2117	TANK WASTE REMEDIATION SYSTEM ACTIVITIES																							
1A2117010A36	M-17-18 CEASE DISCH. OF 242-S EVAP. ST. COND.	TPA																						

WMC-SP-1097

**LIQUID EFFLUENT PROGRAM
Program Master Baseline Schedule
09/23/94**

**Program Element Level/Milestones
Fiscal Years 1995-2001**

Description	Type	MS #	1994	1995			1996			1997			1998			1999			2000			2001		
				JAN	MAY	SEP	JAN	MAY																
SOLID WASTE DIVISION			01OCT94																					
1A2118	SOLID WASTE DIVISION																							
1A2118010A04	M-17-41 CEASE DISCHARGE TO 216-T-4-2 DITCH	TPA	LEP-95-021																					
1A2118010A05	M-17-42 CEASE DISCHARGE TO 216-T-1 DITCH	TPA	LEP-95-022																					
LANDLORD / PIPE UTILITIES SITE SUPPORT																								
1A2119	LANDLORD PROJECTS																							
1A2119010A05	M-17-43 CEASE DISCHARGE 2101-M POND	TPA	LEP-95-023																					
1A2119010A11	M-17-34 CEASE DISCHARGE 216-W-LVC CRIB	TPA	LEP-95-001																					
1A2119010A17	M-17-38 CEASE DISCHARGE TO 284-W POWERPLANT POND	TPA	LEP-95-019																					
1A2119010A21	M-17-06J PROJ L-070 DEFINITIVE DESIGN COMPLETE	TPA	M-17-06J																					
1A2119010A25	M-17-06K PROJ L-070 300A PROC SEWER CONST COMPL	TPA	M-17-06K																					
ER PROGRAM / RCRA OPERATIONAL MONITORING																								
1A211A	ER PROGRAM/RCRA OPERATIONAL MONITORING																							
1A2211 - 200A LEF OPERATIONS																								
1A2211	200 AREA LEF OPERATIONS																							
1A2211010D28	PLANT DECLARES READINESS FOR STARTUP	RL	LEP-94-002																					
1A2211010D33	WHC ARB DECLARES READINESS TO RL	RL	LEP-95-034																					
1A2211010D39	M-17-14 INITIATE OPERATIONS ETF	TPA	LEP-95-011																					
1A2211010D50	M-17-29INITIATE OPS 200 AREA ETF (C018 START UP)	TPA	LEP-95-018																					
1A2211010E08	WHC DECLARES 200A TEDF READINESS	TPA	LEP-95-042																					
1A2211010E10	M-17-08 OPER. TREATED EFFLUENT DISPOSAL FACILITY	TPA	LEP-95-008																					
1A2211010F06	1996 SHIFT OPERATIONS		LEF-96-004																					
1A2211010F08	TREAT & DISPOSE LERF (10m GAL) THROUGH 200A ETF	RL	LEF-96-004																					
1A2211010F10	DISPOSE OF 500M GAL TREATED EFFLUENT 200A TEDF	RL	LEP-96-005																					
1A2212 - 200A LEF MAINTENANCE																								
1A2212	200 AREA LEF MAINTENANCE																							

WHC-SP-1097

LIQUID EFFLUENT PROGRAM
Program Master Baseline Schedule
09/23/94

Program Element Level/Milestones
Fiscal Years 1995-2001

Description	Type	MS #	1994	1995			1996			1997			1998			1999			2000			2001		
				JAN	MAY	SEP																		
1A2213 - 200A LEF OPS MANAGEMENT AND SUPPORT																								
1A2213																								
1A2213010A28	200 AREA LEF OPERATIONS MANAGEMENT AND SUPPORT	RL																						
1A2213060E27	FULL COMPLIANCE WITH DOE RADCON MANUAL REV. 0	WHC-KEY		▲																				
1A2213060F03	COMPLETE INITIAL DRPS TRAINING FOR OPERATIONS	WHC-KEY		▲																				
1A2213060F21	TRAIN 90% OF LEF STAFF AT FACILITY HGET MACHINES	WHC-KEY		▲																				
1A2213060G05	049 AND 291 FACILITIES ADDED TO MANUAL	WHC-KEY		▲																				
1A2213060H23	BUILDING EMERGENCY DRILL COMPLETE	WHC-KEY		▲																				
1A2213060H23	DEVELOP FY96 SAFETY IMPROVEMENT PLAN	WHC-KEY		▲																				
1A2213080A13	COMPLETE DJT (200 AREA ETF PERSONNEL)	RL		⊙																				
1A2213080A19	COMPLETE NPO INITIAL CERTIFICATION	RL		⊙																				
1A2214 - 200A LEF ENGINEERING																								
1A2214	200 AREA LEF ENGINEERING																							
1A2214060E05	OPERATION TEST PROCEDURES COMPLETE	RL		⊙																				
1A2215 - 200A LEF REGULATORY COMPL./ENGINEERING																								
1A2215	200 AREA LEF REGULATORY COMPLIANCE/ENGINEERING																							
1A2215020A27	OPS & MAINT. DOC TO ECOLOGY (WAC 173-240-150)	RL		⊙																				
1A2311 - 300A OPERATIONS																								
1A2311	300 AREA LEF FACILITIES OPERATIONS																							
1A2311020KAA12	PROJ. W-345 307 BASIN UPGRADE COMPLETE	RL		⊙																				
1A2311020KAB12	W-337 NESHAPS UPGRADE CONSTRUCTION COMPLETE	RL		⊙																				
1A2311020KAC12	PROJ. W-353 300 A DIVERTER UPGRADE COMPLETE	RL		⊙																				
1A2312 - 300A MAINTENANCE																								
1A2312	300 AREA FACILITIES MAINTENANCE																							
1A2312010AAA13	300A FY-95 PREVENTATIVE MAINT. COMPLETE	WHC-KEY																						
1A2312020AAA13	340/307 FY-95 PREVENTATIVE MAINT. COMPLETE	WHC-KEY																						

WHC-SP-1097

**LIQUID EFFLUENT PROGRAM
Program Master Baseline Schedule
09/23/94**

**Program Element Level/Milestones
Fiscal Years 1995-2001**

Description	Type	MS #	1994	1995			1996			1997			1998			1999			2000			2001		
				JAN	MAY	SEP																		
			01OCT94																					
1A2314 - 300A ENGINEERING																								
1A2314	300 AREA FACILITY ENGINEERING																							
1A2314010AAB14	300 A. TEOF MGR. DECLARES READINESS ASS. COMPLETE	RL																						
1A2314010AAB18	300A TEOF VHC DECLARES READINESS TO RL	RL																						
1A2314010AAB24	M-17-09-INITIATE HOT START-UP OF 300A TEOF	TPA																						
1A2314010ABB	TREAT/DISP 50M GAL THROUGH 300 AREA TEOF	RL																						
1A2316 - 300A REGULATORY COMPLIANCE/PERMITTING																								
1A2316	300 AREA REGULATORY COMPLIANCE/PERMITTING																							
1A2411 - 200A LEAD ENGINEERING SUPPORT																								
1A2411	200A LIQ. EFFLUENT ADVANCED ENGR.																							
1A2411130GAF	COMPLETE SOW FOR PUMP AND TREAT	WHC-KEY	1A2411-027	△																				
1A2411130GAM	COMPLETE DRAFT REPORT/PUMP AND TREAT	WHC-KEY	1A2411-028		△																			
1A2411130GAR	SUBMIT FINAL REPORT/PUMP AND TREAT	WHC-KEY	1A2411-029			△																		
1A2411180JAC	RD&D QUARTERLY REPORT	WHC-KEY	1A2411-019	△																				
1A2411180JAK	RD&D QUARTERLY REPORT	WHC-KEY	1A2411-020		△																			
1A2411180JAP	RD&D QUARTERLY REPORT	WHC-KEY	1A2411-021			△																		
1A2411210AAL	COMPLETE FDC: FILTRATION SYSTEM UPGRADE	RL	1A2411-002																					
1A2411210AAZ	COMPLETE CDR: FILTRATION SYSTEM UPGRADE	RL	1A2411-003																					
1A2411210DAL	COMPLETE UV/OX FDC	WHC-KEY	1A2411-004																					
1A2412 - 300A LEAD ENGINEERING SUPPORT																								
1A2412	300A LIQUID EFFLU. ADVANCED ENGINEERING																							
1A2413 - MISCELLANEOUS STREAMS																								
1A2413	MISCELLANEOUS STREAMS																							
1A2413040AAE	START WHC REVIEW OF PERMIT APPLICATION	WHC-KEY	1A2413-002																					
1A2413040AAJ	START RL REVIEW OF PERMIT APPLICATION	WHC-KEY	1A2413-003																					
1A2413040AAN	SUBMIT WHC APPROVED PERMIT APPLICATION TO RL	WHC-KEY	1A2413-004																					
1A2413040AAT	SUBMIT RL APPROVED PERMIT APPLICATION	RL	1A2413-005																					

WHC-SP-1097

LIQUID EFFLUENT PROGRAM
Program Master Baseline Schedule
09/23/94

Program Element Level/Milestones
Fiscal Years 1995-2001

Description	Type	MS #	1994	1995			1996			1997			1998			1999			2000			2001		
				JAN	MAY	SEP																		
1A2413050AAZ COMPLETE INJECTION WELL REGISTRATIONS	WHC-KEY	1A2413-006	01 OCT 1994 △																					
1A2413060AAZ START ENGR. STUDY OF ALTERNATIVES	WHC-KEY	1A2413-007		△																				
1A2413070AAZ ISSUE MISC. STAMS INVENTORY	WHC-KEY	1A2413-008			△																			
1A2414 - TRITIUM STUDIES																								
1A2414 TRITIUM WASTE TECHNOLOGY EVALUATION																								
1A2414010A65 FINAL TRITIUM STUDY TO DOE-RL	RL	LEP-95-029		○																				
1A2414010A70 COMP. ANNUAL TRITIUM EVALUATION TECHNOLOGY	TPA	LEP-95-029		○																				
1A2414010B65 ISSUE ANNUAL TRITIUM STUDY REPORT	RL	LEP-96-003																						
1A2414010B70 COMP ANNUAL TRITIUM EVALUATION TECHNOLOGY	TPA	LEP-96-003																						
1A2414010C65 ISSUE ANNUAL TRITIUM STUDY REPORT	RL	LEP-97-003																						
1A2414010C70 COMP ANNUAL TRITIUM EVALUATION TECHNOLOGY	TPA	LEP-97-003																						
1A2414010D65 ISSUE ANNUAL TRITIUM STUDY REPORT	RL	LEP-98-004																						
1A2414010D70 COMP ANNUAL TRITIUM EVALUATION TECHNOLOGY	TPA	LEP-98-004																						
1A2414010E65 ISSUE ANNUAL TRITIUM STUDY REPORT	RL	LEP-99-001																						
1A2414010E70 COMP ANNUAL TRITIUM EVALUATION TECHNOLOGY	TPA	LEP-99-001																						
1A2414010F65 ISSUE ANNUAL TRITIUM STUDY REPORT	RL	LEP-00-001																						
1A2414010F70 COMP ANNUAL TRITIUM EVALUATION TECHNOLOGY	TPA	LEP-00-001																						
1A2414010G65 ISSUE ANNUAL TRITIUM STUDY REPORT	RL	LEP-01-001																						
1A2414010G70 COMP ANNUAL TRITIUM EVALUATION TECHNOLOGY	TPA	LEP-01-001																						
1A2415 - INTERIM COMPLIANCE																								
1A2415 INTERIM COMPLIANCE																								
1A2415010AAZ SUBMIT T-DITCH GIA REPORT	RL	LEP-95-031		○																				
1A2415010BAZ SUBMIT T-4-2 DITCH GIA REPORT	RL	LEP-95-032		○																				
1A2415010CAZ SUBMIT B POND GIA REPORT	RL	LEP-95-030		○																				
1A2502 - PROJECT W-252 PHASE II STREAMS																								
1A2502 BAT IMPLEMENTATION PHASE II STREAMS																								
1A25020108BB REVISION TO 216 PERMIT	RL	LEP-97-001																						
1A2502040AAZ FIRE HAZARDS DOCUMENT	WHC-KEY	1A2502-004																						

WHC-SP-1097

**LIQUID EFFLUENT PROGRAM
Program Master Baseline Schedule
09/23/94**

**Program Element Level/Milestones
Fiscal Years 1995-2001**

Description	Type	MS #	1994	1995			1996			1997			1998			1999			2000			2001		
				JAN	MAY	SEP																		
1A2502060AAZ	INITIATE ADP PLAN	RL	LEP-94-032	⊙																				
1A2502070AAD	START BID PROCESS	RL	1A2502-009			⊙																		
1A2502070AAL	INITIATE DEFINITIVE DESIGN	RL	LEP-95-028	⊙																				
1A2502070AAZ	DEFINITIVE DESIGN COMPLETE	RL	LEP-96-001		⊙																			
1A2502070CBZ	START CONSTRUCTION	RL	LEP-96-002		⊙	⊙																		
1A2502070CCL	COMPLETE CONSTRUCTION	RL	LEP-97-002						⊙															
1A2502080AAZ	ACD PACKAGE COMPLETE	WHC-KEY	1A2502-006	△																				
1A2502100AAW	COMP WHC READINESS DOCUMENTATION	RL	LEP-98-001						⊙															
1A2502100ABA	STARTUP PH. II STREAMS TO 200A TEDF	RL	LEP-98-002						⊙															
1A2502100ABL	M-17-00B PH. II TRMT/FAC COMPLETE	TPA	LEP-98-003						⊙															
1A8A11 - MISCELLANEOUS STREAM BAT IMPLEMENTATION																								
1A8A11	MISC. STREAM BAT IMPLEMENTATION																							
1A8B11 - 340 LIQ. WASTE STORAGE FAC. UPGRADE																								
1A8B11	340 WASTE STORAGE UPGRADE																							
2A2211 - 200A CAPITAL EQUIPMENT																								
2A2211	200A CAPITAL EQUIPMENT																							
2A2311 - 300A CAPITAL EQUIPMENT																								
2A2311	300A CAPITAL EQUIPMENT																							
3A8A11 - PROJECT W-XXX MISC. STRM BAT IMPL.																								
3A8A11	PROJECT W-XXX MISC. STRM BAT IMPLEMENTATION																							
3A8B11 - DESIGN/ PROCURE/ CONSTRUCT PROJ. W-302																								
3A8B11	DESIGN. PROCURE. CONSTRUCT																							

WMC-SP-1097

LIQUID EFFLUENT PROGRAM
Program Performance Baseline Schedule
09/23/94

Cost Account/Task Packages
Fiscal Year 1995

	Description	Type	Start	Finish	1994			1995												
					OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT			
1A2111 - PROGRAM MANAGEMENT																				
1A2111010A	PROGRAM OVERVIEW		10/03/94	09/28/01																
1A2111010A11	M-26-03 CERSE DISCHG: 242-A EVAP. LERF BASINS	TPA	12/30/94	12/30/94																
1A2111010A13	M-17-08B IMPL. BAT/AKART-200A TEDF STREAMS	TPA	06/30/95	06/30/95																
1A2111010A14	M-17-00A COMPLETE LETF PHASE I STREAMS	TPA	06/30/95	06/30/95																
1A2111010A15	M-26-04 REM. ALL HAZ. WASTE RESIDUE FROM LERF	RL	06/30/95	06/30/95																
1A2111010A16	M-17-10 CERSE DISCH. TO HAZ. LAND DISP. UNITS	TPA	06/30/95	06/30/95																
1A2111010B	PROGRAM REPORTS		10/03/94	09/28/01																
1A2111010E	MYPP AND FYWP PREPARATION		10/03/94	09/28/01																
1A2111010H	FY ACTIVITY DATA SHEETS		10/03/94	09/28/01																
1A2111010N	PROGRAM SCHEDULE CONTROL		10/03/94	09/28/01																
1A2111010Q	PROGRAM FUNDS CONTROL		10/03/94	09/28/01																
1A2111040A	PROGRAM MGMT FOR LIQ WASTE DISPOSAL		10/03/94	09/28/01																
1A2111040B	READINESS ACTIVITIES		10/03/94	12/30/94																
1A2113 - LERF OPERATIONS																				
1A211301AA	LERF OPERATIONS PROGRAM MANAGEMENT		10/03/94	09/29/95																
1A211301AD	SURVIELLANCE AND SAMPLING		10/03/94	09/29/95																
1A211301AF	LERF LABORATORY ANALYSIS		10/03/94	06/30/95																

MHC-SP-1097

LIQUID EFFLUENT PROGRAM
Program Performance Baseline Schedule
09/23/94

Cost Account/Task Packages
Fiscal Year 1995

	Description	Type	Start	Finish	1994			1995									
					OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
HEC PROGRAM ACTIVITIES																	
1A2114010A	W-291 PROJECT ACTIVITIES		10/03/94	06/23/95													
1A2114010B	HEC CONSTRUCTION ACTIVITIES		10/03/94	06/23/95													
TRANSITION PROJECTS																	
1A2115010A	B PLANT ACTIVITIES		10/03/94	08/29/97													
1A2115010A05	M-17-04 CEASE DISCHARGE TO 216-B-3 POND SYS.	TPA	06/30/95	06/30/95													LEP-95-004
1A2115010A15	M-17-16 CEASE DISCHARGE TO 216-Z-20 CRIB	TPA	06/30/95	06/30/95													LEP-95-005
1A2115010A25	M-17-22 CEASE DISCHARGE PUREX ST. COND 216-B-3	TPA	06/30/95	06/30/95													LEP-95-016
1A2115010A26	M-17-23 CEASE DISCH. PUREX PL COOLING 216-B-3	TPA	06/30/95	06/30/95													LEP-95-003
1A2115010A27	M-17-24 CEASE DISCH. PUREX CHEM. SEVER 216-B-3	TPA	06/30/95	06/30/95													LEP-95-017
1A2115010A33	M-17-17 CEASE DISCHARGE U03 WW/PC TO 216-U-14	TPA	06/30/95	06/30/95													LEP-95-012
1A2115010A34	M-17-19 CEASE DISCHARGE 216-U-17 CRIB	TPA	06/30/95	06/30/95													LEP-95-013
ANALYTICAL SERVICES																	
1A2116010A	222-S LAB ACTIVITIES		10/03/94	06/30/95													
1A2116010A07	M-17-39 CEASE ALL DISCHARGES TO 216-S-26 CRIB	TPA	06/30/95	06/30/95													LEP-95-020
TANK WASTE REMEDIATION SERVICES																	
1A2117010A	TANK WASTE REMEDIATION SYSTEM ACTIVITIES		10/03/94	08/29/97													
1A2117010A36	M-17-18 CEASE DISCH. OF 242-S EVAP. ST. COND.	TPA	06/30/95	06/30/95													LEP-95-006

MHC-SP-1097

LIQUID EFFLUENT PROGRAM
Program Performance Baseline Schedule
09/23/94

Cost Account/Task Packages
Fiscal Year 1995

Description	Type	Start	Finish	1994			1995											
				OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT		
SOLID WASTE DIVISION																		
1A2118010A	T-PLANT BAT/AKART IMPLEMENTATION ACTIVITIES		04/03/95	06/30/95														
1A2118010A04	M-17-41 CEASE DISCHARGE TO 216-T-4-2 DITCH	TPA	06/30/95	06/30/95														LEP-95-021
1A2118010A05	M-17-42 CEASE DISCHARGE TO 216-T-1 DITCH	TPA	06/30/95	06/30/95														LEP-95-022
LANDLORD / PIPE UTILITIES SITE SUPPORT																		
1A2119010A	2101-M BAT/AKART IMPLEMENTATION ACTIVITIES		10/03/94	08/29/97														
1A2119010A05	M-17-43 CEASE DISCHARGE 2101-M POND	TPA	06/30/95	06/30/95														LEP-95-023
1A2119010A11	M-17-34 CEASE DISCHARGE 216-W-LWC CRIB	TPA	06/30/95	06/30/95														LEP-95-001
1A2119010A17	M-17-38 CEASE DISCHARGE TO 284-W POWERPLANT POND	TPA	06/30/95	06/30/95														LEP-95-019
1A2119010A21	M-17-06J PROJ L-070 DEFINITIVE DESIGN COMPLETE	TPA	04/28/95	04/28/95														M-17-06J
ER PROGRAM / RCRA OPERATIONAL MONITORING																		
1A211A010A	ER PROGRAM/RCRA OPERATIONAL MONITORING		11/01/94	06/30/95														
1A2211 - 200A LEF OPERATIONS																		
1A2211010A	LEF HIRE/TRAIN STAFF		10/03/94	06/23/95														
1A2211010B	REVIEW ENGINEERING DOCUMENTS		10/03/94	06/30/95														
1A2211010D	LEF STARTUP OPNS MGMT RR (C-018)		10/03/94	06/30/95														
1A2211010D28	PLANT DECLARES READINESS FOR STARTUP	RL	03/31/95	03/31/95														LEP-94-002
1A2211010D33	WHC RRB DECLARES READINESS TO RL	RL	05/01/95	05/01/95														LEP-95-034
1A2211010D39	M-17-14 INITIATE OPERATIONS ETF	TPA	06/30/95	06/30/95														LEP-95-011

MHC-SP-1097

LIQUID EFFLUENT PROGRAM
Program Performance Baseline Schedule
09/23/94

Cost Account/Task Packages
Fiscal Year 1995

	Description	Type	Start	Finish	1994			1995										
					OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	
1A2211010D50	M-17-29INITIATE OPS 200 AREA ETF (C018 START UP)	TPA	06/30/95	06/30/95														
1A2211010E	READINESS ASSESSMENT 049		10/03/94	06/30/95														
1A2211010E08	WHC DECLARES 200A TEDF READINESS	TPA	05/01/95	05/01/95														
1A2211010E10	M-17-08 OPER. TREATED EFFLUENT DISPOSAL FACILITY	TPA	06/30/95	06/30/95														
1A2211010F	FACILITY OPERATIONS		07/05/95	09/30/96														
1A2211010H	PERFORM OTP's		10/03/94	02/28/95														
1A2211010I	MISCELLANEOUS SUPPORT DUTIES		10/03/94	06/30/95														
1A2211020A	STARTUP SUPPORT		10/03/94	05/31/95														
1A2211030A	TESTING SUPPORT		10/03/94	06/30/95														
1A2212 - 200A LEF MAINTENANCE																		
1A2212010A	LEF MAINTENANCE CRAFT TRAINING		10/03/94	09/29/00														
1A2212010B	SUPPORT START-UP TESTING		10/03/94	02/13/95														
1A2212010C	MAINTENANCE CRAFT MAINTAIN FACILITIES		10/03/94	09/29/95														
1A2212020B	MAINTAIN TOOL/EQUIPMENT INVENTORY		10/03/94	10/03/01														
1A2212020D	SUPPORT READINESS REVIEW		10/03/94	04/28/95														
1A2212020E	COORDINATE LEF MAINTENANCE ACTIVITIES		10/03/94	09/29/00														
1A2212020F	PARTICIPATE IN EXEMPT STAFF TRAINING		10/03/94	09/29/95														
1A2212020G	CREATE & MAINTAIN SPARE PARTS INVENTORY		10/03/94	09/29/95														
1A2212030C	PHASE II CAL/PM PROCEDURE EFFORT		10/03/94	09/29/00														

MHC-SP-1097

LIQUID EFFLUENT PROGRAM
Program Performance Baseline Schedule
09/23/94

Cost Account/Task Packages
Fiscal Year 1995

Description	Type	Start	Finish	1994			1995												
				OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT			
1A2212030F	MAINTENANCE IMPLEMENTATION PLAN	10/03/94	12/21/94	01OCT94															
1A2212030G	LEF MAINTENANCE ADMIN. PROCEDURES	10/03/94	09/29/95																
1A2212040A	PROVIDE LEF MAINTENANCE SUPPORT	01/03/95	12/29/00																
1A2213 - 200A	LEF OPS MANAGEMENT AND SUPPORT																		
1A2213010A	FACILITY MANAGEMENT AND ADMINISTRATIVE SUPPORT	10/03/94	09/29/00																
1A2213010A2B	FULL COMPLIANCE WITH DOE RADCON MANUAL REV. 0	03/31/95	03/31/95																
1A2213020A	SUPPORT READINESS REVIEW ACTIVITIES	10/03/94	05/31/95																
1A2213020B	ESTABLISH/OPERATE WORK CONTROL CENTER	10/03/94	09/29/00																
1A2213020C	DEVELOP / MAINTAIN 200A LEF SCHEDULING PROGRAM	10/03/94	09/29/00																
1A2213020D	MATERIAL CONTROL AND PROCUREMENT	10/03/94	09/29/00																
1A2213020F	CONFIGURATION MANAGEMENT	10/03/94	09/29/00																
1A2213030A	OPERATIONS AND MAINTENANCE SUPPORT	10/03/94	09/29/95																
1A2213030B	RADIOLOGICAL SURVEILLANCE PROGRAM	10/03/94	09/29/95																
1A2213030C	RADIOLOGICAL ACCESS CONTROL SYSTEM	10/03/94	09/29/95																
1A2213030D	MISCELLANEOUS ACTIVITIES	10/03/94	09/29/95																
1A2213040A	LEF SAFETY SUPPORT	10/03/94	10/03/01																
1A2213050A	200 AREA LEF QUALITY ASSURANCE SUPPORT	10/03/94	09/29/00																
1A2213060A	COMPANY PROCEDURES AND COMPLIANCE SUPPORT	10/03/94	09/29/95																
1A2213060B	PLANT PROCEDURE DEVELOPMENT MAINTENANCE & ADMIN.	10/03/94	09/29/95																

1A2213-014

WMC-SP-1097

LIQUID EFFLUENT PROGRAM
Program Performance Baseline Schedule
09/23/94

Cost Account/Task Packages
Fiscal Year 1995

Description	Type	Start	Finish	1994			1995											
				OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT		
1A2213060C	PERFORMANCE ASSESSMENT	10/03/94	09/29/95															
1A2213060D	DRILL PROGRAM / LESSONS LEARNED	10/03/94	12/28/95															
1A2213060E	EVENT REPORTING	10/03/94	09/29/95															
1A2213060E27	COMPLETE INITIAL ORPS TRAINING FOR OPERATIONS	WHC-KEY	03/31/95	03/31/95														
1A2213060F	TRAINING ADMINISTRATIVE SUPPORT	10/03/94	09/29/95															
1A2213060F03	TRAIN 90% OF LEF STAFF AT FACILITY HGET MACHINES	WHC-KEY	09/29/95	09/29/95														
1A2213060F21	049 AND 291 FACILITIES ADDED TO MANUAL	WHC-KEY	03/31/95	03/31/95														
1A2213060G	LEF ADMINISTRATIVE SUPPORT FUNCTIONS	10/03/94	09/29/95															
1A2213060G05	BUILDING EMERGENCY DRILL COMPLETE	WHC-KEY	09/29/95	09/29/95														
1A2213060H	BLDG SAFETY / SECURITY & EMERGENCY PREPAREDNESS	10/03/94	12/29/95															
1A2213060H23	DEVELOP FY96 SAFETY IMPROVEMENT PLAN	WHC-KEY	09/29/95	09/29/95														
1A2213060I	PLANT CONSUMABLES & SERVICE PROCUREMENT SUPPORT	10/03/94	09/29/95															
1A2213060J	OR & S GROUP ADMINISTRATION	10/03/94	09/29/95															
1A2213070A	MAINTAIN & UPGRADE LEF TOUR SIMULATION AS REQ.	10/03/94	09/29/95															
1A2213070B	MAINTAIN & UPGRADE LEF HARD MODEL AS REQUIRED	10/03/94	09/29/95															
1A2213080A	IMPLEMENT ON GOING ETF INITIAL & CONTINUING TRNG	10/03/94	10/03/01															
1A2213080A13	COMPLETE OJT (200 AREA ETF PERSONNEL)	RL	01/27/95	01/27/95														
1A2213080A19	COMPLETE NPO INITIAL CERTIFICATION	RL	03/17/95	03/17/95														

WHC-SP-1097

LIQUID EFFLUENT PROGRAM
Program Performance Baseline Schedule
09/23/94

Cost Account/Task Packages
Fiscal Year 1995

Description	Type	Start	Finish	1994			1995												
				OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT			
1A2214 - 200A LEF ENGINEERING																			
1A2214010A LEF PROCESS ENG. MGMT & ADMINISTRATION		10/03/94	09/29/00																
1A2214010B LEF PROCESS ENGINEERING TRAINING		10/03/94	09/29/00																
1A2214020A PROVIDE COGNIZANT ENGINEER SUPPORT		05/01/95	09/29/00																
1A2214030A PROVIDE LEF PE MISC ENGINEERING SUPPORT		10/03/94	10/03/01																
1A2214040A ETF DESIGN/DRAFTING SUPPORT		10/03/94	09/29/95																
1A2214050A ETF FSAR MAINTENANCE/UPDATE		10/03/94	09/29/00																
1A2214060A FACILITY DESCRIPTION MANUAL		10/03/94	10/31/94																
1A2214060B SOFTWARE DOCUMENTS		10/03/94	12/14/94																
1A2214060C OPERATING SPECIFICATION DOCUMENTS		10/03/94	03/08/95																
1A2214060D OPERATING PROCEDURES		10/03/94	06/30/95																
1A2214060E TESTING PROCEDURES		10/03/94	06/12/95																
1A2214060E05 OPERATION TEST PROCEDURES COMPLETE	RL	02/28/95	02/28/95																
1A2214070A POST TURNOVER SUPPORT		10/03/94	09/29/95																
1A2215 - 200A LEF REGULATORY COMPL./ENGINEERING																			
1A2215010A LEF STARTUP GEOSCIENCES (LOE)		10/03/94	09/29/95																
1A2215010D SRIDS REVIEW		10/03/94	09/29/95																
1A2215010E OPERATING PROCEDURE REVIEW		10/03/94	04/28/95																
1A2215010F OAR/ORE SUPPORT		10/03/94	06/30/95																

LEP-95-035

MHC-SP-1097

**LIQUID EFFLUENT PROGRAM
Program Performance Baseline Schedule
09/23/94**

**Cost Account/Task Packages
Fiscal Year 1995**

	Description	Type	Start	Finish	1994			1995												
					OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT			
1A2312010E	MISCELLANEOUS MAINTENANCE ACTIVITIES		10/03/94	09/28/01																
1A2312020A	340/307 FACILITY MAINTENANCE		10/03/94	09/28/01																
1A2312020AAA13	340/307 FY-95 PREVENTATIVE MAINT. COMPLETE	WHC-KEY	09/29/95	09/29/95																1A2312-002
1A2312020C	MAINTENANCE MATERIAL PURCHASES-FY 95		10/03/94	09/29/95																
1A2314 - 300A ENGINEERING																				
1A2314010A	FACILITIES ENGINEERING		10/03/94	09/28/01																
1A2314010AAB14	300 A TEDF MGR DECLARES READINESS ASS' COMPLETE	RL	10/31/94	10/31/94																
1A2314010AAB18	300A TEDF VHC DECLARES READINESS TO RL	RL	11/14/94	11/14/94																
1A2314010AAB24	M-17-09-INITIATE HOT START-UP OF 300A TEDF	TPA	12/30/94	12/30/94																
1A2314010B	TEDF SAMPLING (WSCF)		10/03/94	09/28/01																
1A2316 - 300A REGULATORY COMPLIANCE/PERMITTING																				
1A2316010A	ENVIRONMENTAL COMPLIANCE FOR 300 AREA		10/03/94	09/28/01																
1A2411 - 200A LEAD ENGINEERING SUPPORT																				
1A2411020A	LEAD MANAGEMENT PACKAGE		10/03/94	09/29/95																
1A2411020B	WALK IN WORK		10/03/94	09/29/95																
1A2411130D	WASTE WATER FEED LOGIC PATH		10/03/94	04/28/95																
1A2411130E	ENHANCE ETF COMPLEX FLEXIBILITY		10/03/94	09/29/95																
1A2411130G	ETF PUMP AND TREATMENT STUDY		10/03/94	09/29/95																
1A2411130GAF	COMPLETE SOW FOR PUMP AND TREAT	WHC-KEY	01/05/95	01/05/95																1A2411-027

WHC-SP-1097

LIQUID EFFLUENT PROGRAM
Program Performance Baseline Schedule
09/23/94

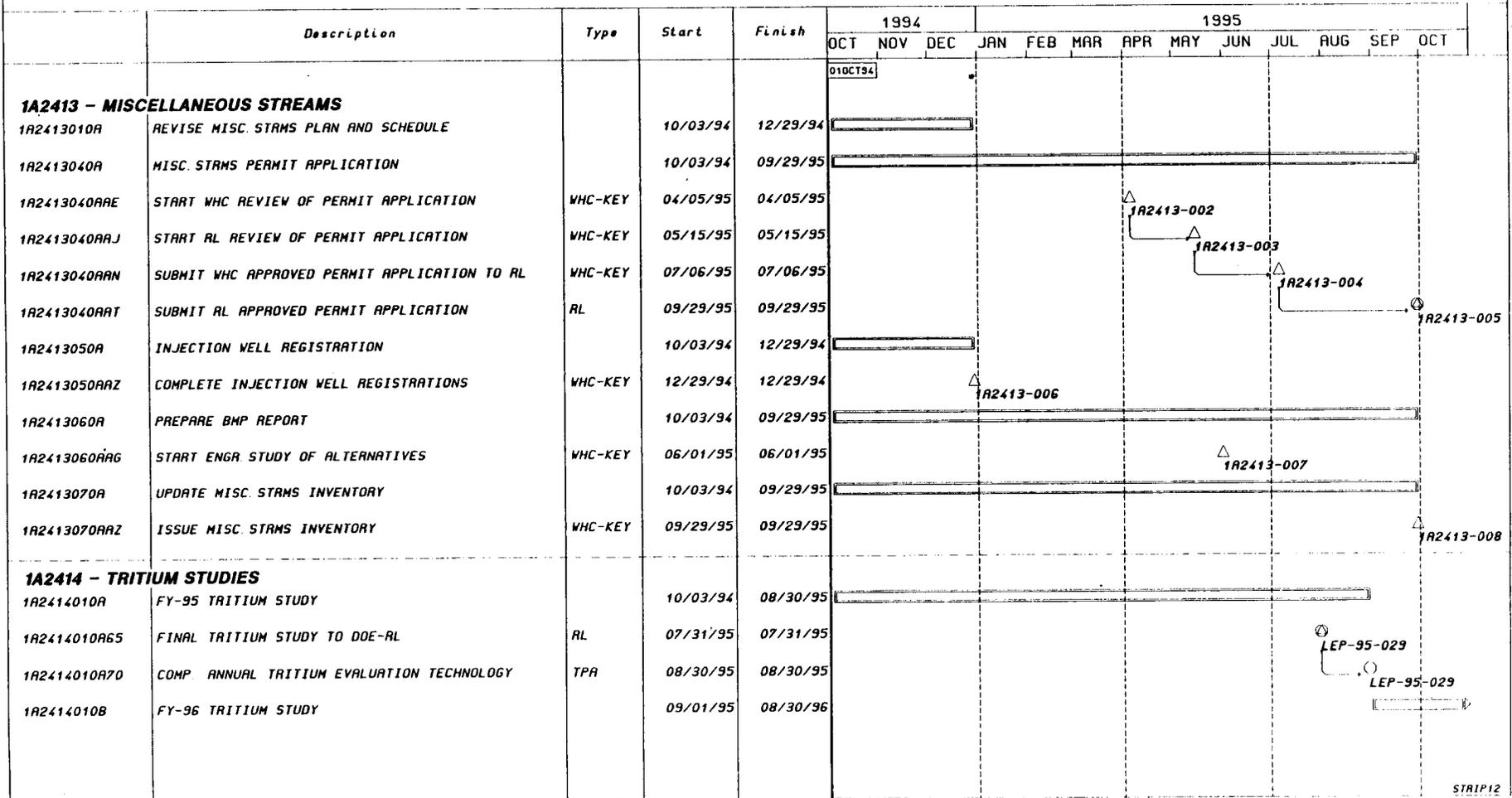
Cost Account/Task Packages
Fiscal Year 1995

Description	Type	Start	Finish	1994			1995													
				OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT				
1A2411130GAM	WHC-KEY	07/05/95	07/05/95																	
1A2411130GAR	WHC-KEY	09/29/95	09/29/95																	
1A2411170D		10/03/94	06/30/95																	
1A2411180A		10/03/94	09/29/95																	
1A2411180G		10/03/94	03/31/95																	
1A2411180J		12/01/94	09/29/95																	
1A2411180JAC	WHC-KEY	01/13/95	01/13/95																	
1A2411180JAK	WHC-KEY	04/14/95	04/14/95																	
1A2411180JAP	WHC-KEY	07/14/95	07/14/95																	
1A2411180N		03/01/95	09/29/95																	
1A2411200A		10/03/94	07/31/95																	
1A2411210A		10/03/94	04/02/96																	
1A2411210AAL	RL	09/29/95	09/29/95																	
1A2411210D		10/03/94	09/29/95																	
1A2411210DAL	WHC-KEY	09/29/95	09/29/95																	
1A2412 - 300A LEAD ENGINEERING SUPPORT																				
1A2412010A		10/03/94	06/28/96																	
1A2412010F		10/03/94	09/29/95																	
1A2412010J		10/03/94	09/29/95																	

WHC-SP-1097

LIQUID EFFLUENT PROGRAM
Program Performance Baseline Schedule
09/23/94

Cost Account/Task Packages
Fiscal Year 1995



MHC-SP-1097

LIQUID EFFLUENT PROGRAM
Program Performance Baseline Schedule
09/23/94

Cost Account/Task Packages
 Fiscal Year 1995

Description	Type	Start	Finish	1994			1995											
				OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT		
1A2415 - INTERIM COMPLIANCE																		
1A2415010A	T DITCH GIA REPORT		10/03/94	02/28/95	[Gantt bar from Oct 1994 to Feb 1995]													
1A2415010AAZ	SUBMIT T-DITCH GIA REPORT	RL	02/28/95	02/28/95														
1A2415010B	T-4-2 DITCH GIA REPORT		10/03/94	02/28/95	[Gantt bar from Oct 1994 to Feb 1995]													
1A2415010BAZ	SUBMIT T-4-2 DITCH GIA REPORT	RL	02/28/95	02/28/95														
1A2415010C	B POND GIA REPORT		10/03/94	01/31/95	[Gantt bar from Oct 1994 to Jan 1995]													
1A2415010CAZ	SUBMIT B POND GIA REPORT	RL	01/31/95	01/31/95														
1A2415020A	LEMIS PROJECT MANAGEMENT AND SUPPORT		10/03/94	09/29/95	[Gantt bar from Oct 1994 to Sep 1995]													
1A2502 - PROJECT W-252 PHASE II STREAMS																		
1A2502010A	PERMITTING		10/03/94	09/29/95	[Gantt bar from Oct 1994 to Sep 1995]													
1A2502030A	DESIGN REVIEW		10/03/94	09/29/95	[Gantt bar from Oct 1994 to Sep 1995]													
1A2502040A	SAFETY DOCUMENTATION REVIEW		01/03/95	09/29/95														
1A2502040AAZ	FIRE HAZARDS DOCUMENT	WHC-KEY	09/01/95	09/01/95														
1A2502060A	AUTOMATIC DATA PROCESSING PLAN		10/03/94	12/30/94	[Gantt bar from Oct 1994 to Dec 1994]													
1A2502060AAZ	INITIATE ADP PLAN	RL	12/01/94	12/01/94														
1A2502070A	SUPPORT INITIAL DEFINITIVE DESIGN ACTIVITIES		10/03/94	05/31/96	[Gantt bar from Oct 1994 to May 1996]													
1A2502070AAL	INITIATE DEFINITIVE DESIGN	RL	01/30/95	01/30/95														
1A2502070AAZ	DEFINITIVE DESIGN COMPLETE	RL	09/29/95	09/29/95														
1A2502080A	PROJECT MANAGEMENT SUPPORT FOR ACD PREP		10/03/94	01/30/95	[Gantt bar from Oct 1994 to Jan 1995]													

WHC-SP-1097

LIQUID EFFLUENT PROGRAM
Program Performance Baseline Schedule
09/23/94

Cost Account/Task Packages
Fiscal Year 1995

Description	Type	Start	Finish	1994			1995													
				OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT				
1A2502080AAZ ACD PACKAGE COMPLETE	WHC-KEY	01/30/95	01/30/95																	
1A2502080B PROVIDE FINANCIAL ANALYST SUPPORT		01/31/95	10/30/95																	
1A8B11 - 340 LIQ. WASTE STORAGE FAC. UPGRADE																				
1A8B11010A 340 LIQUID WASTE FACILITY UPGRADE		10/03/94	09/29/95																	
1A8B11010B 340 LIQ. WASTE FACILITY UPGRADE (WHC)		10/03/94	09/30/96																	
2A2211 - 200A CAPITAL EQUIPMENT																				
2A2211010A 200A CAPITAL EQUIPMENT		10/03/94	09/29/00																	
2A2311 - 300A CAPITAL EQUIPMENT																				
2A2311010A 300A CAPITAL EQUIPMENT		10/03/94	09/28/01																	

WHC-SP-1097

FY 1995 MYPP

**LIQUID EFFLUENT
WBS 1.2.2.1**

2.F. Milestone List - Liquid Effluent Funded					
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 MAC 173-240-150 (200 Area ETF)	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)	03-31-95
RL	LEP-94-004	1.2.2.1.2	2300-0	Complete On Job Training (200 Area ETF personnel)	01-27-95
RL	LEP-94-028	1.2.2.1.1	2300-0	Complete Operational Testing of LERF Basin #44	11-15-94 Complete
RL	LEP-94-032	1.2.2.1.5	2300-0	Initiate ADP Plan Preparation (Project W-252, Phase II Streams)	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	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	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.	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.	12-31-94
RL	LEP-95-038	1.2.2.1.3	2300-0	Complete Project W-345, 307 Basins Maintenance Expense Project	12-31-94
RL	LEP-95-028	1.2.2.1.5	2300-1	Initiate Definitive Design for Phase II Stream BAT/AKART Project W-252	01-30-95
RL	LEP-95-030	1.2.2.1.4	2300-0	Complete Groundwater Impact Assessment for 216-B3 Pond	01-31-95
RL	LEP-95-031	1.2.2.1.4	2300-0	Complete Groundwater Impact Assessment for T-1 Ditch	02-28-95
RL	LEP-95-032	1.2.2.1.4	2300-0	Complete Groundwater Impact Assessment for T-4-2 Ditch	02-28-95
RL	LEP-95-033	1.2.2.1.2	2300-0	Complete the 200 Area ETF Nuclear Process Operator Initial Certification.	03-17-95
RL	LEP-95-042	1.2.2.1.2	2300-0	WHC Declares 200 Area TEDF Readiness	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	12-30-94

2.F-1

WHC-SP-1097

FY 1995 MYPP

LIQUID EFFLUENT
WBS 1.2.2.1

2.F. Milestone List - Liquid Effluent Funded					
Milestone Type*	Control Number	RL WBS	ADS Number	Milestone Description	Milestone Completion Date
RL	LEP-95-034	1.2.2.1.2	2300-0	WMC Declares 200 Area ETF Facility Readiness to DOE-RL.	05-01-95
RL	LEP-95-035	1.2.2.1.2	2300-0	Complete Operations Test Procedures for the 200 Area Liquid Effluent Treatment Facility	02-28-95
RL	LEP-95-040	1.2.2.1.3	2300-0	Complete Project W-353, "300 Area Diverter Upgrades"	05-31-95
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	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	06-30-95
TPA - RL	LEP-95-008 M-17-08	1.2.2.1.2	2300-0	Operate The 200 Area Treated Effluent Disposal Facility	06-30-95
TPA - RL	LEP-95-009 M-17-08B	1.2.2.1.2	2300-0	Implement BAT/AKART - 200 Area TEDF Streams	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	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	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)	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 (WMC to RL 07-31-95; RL to Ecology/EPA 08-31-95)	07-31-95 08-31-95
	FY 1996				
RL	LEP-96-001	1.2.2.1.5	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	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	1.2.2.1.4	2300-0	Complete Annual Evaluation of Tritium Treatment Technology (WMC to RL 07-31-96; RL to Ecology/EPA 08-31-96)	07-31-96 08-31-96

2.F-2

WMC-SP-1097

FY 1995 MYPP

LIQUID EFFLUENT
WBS 1.2.2.1

2.F. Milestone List - Liquid Effluent Funded					
Milestone Type*	Control Number	RL WBS	ADS Number	Milestone Description	Milestone Completion Date
RL	LEP-96-004	1.2.2.1.2	2300-0	Treat and Dispose of 2 LERF Basins Contents (up to 13 million gallons) of 242-A Process Condensate Through the 200 Area ETF.	09-30-96
RL	LEP-96-005	1.2.2.1.2	2300-0	Dispose of 500 Million Gallons of Treated Effluent Through the 200 Area TEDF	09-30-96
RL	LEP-96-006	1.2.2.1.3	2300-0	Treat and Dispose of 50 Million Gallons of Process Wastewater Through the 300 Area TEDF	09-30-96
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	1.2.2.1.4	2300-0	Complete Annual Evaluation of Tritium Treatment Technology (WHC to RL 07-31-97; RL to Ecology/EPA 08-31-97)	07-31-97 08-31-97
FY 1998					
RL	LEP-98-001	1.2.2.1.5	2300-1	Complete Phase II Stream Project Operational Readiness Evaluation	09-30-97
RL	LEP-98-002	1.2.2.1.5	2300-1	Complete Implementation of BAT/AKART for All Phase II Streams	10-30-97
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	1.2.2.1.4	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 08-31-98
FY 1999					
TPA - RL	LEP-99-001 M-26-05F	1.2.2.1.4	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 08-31-99
FY 2000					
TPA - RL	LEP-00-001 M-26-05G	1.2.2.1.4	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

2.F-3

WHC-SP-1097

LIQUID EFFLUENT

WBS 1.2.2.1

FY 1995 MYPP

2.F. Milestone List - Liquid Effluent Funded					
Milestone Type*	Control Number	RL WBS	ADS Number	Milestone Description	Milestone Completion Date
	FY 2001				
TPA - RL	LEP-01-001 M-26-05H	1.2.2.1.4	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

- * TPA, HQ, RL, and selected contractor milestone
- * On Tri-Party Agreement Milestones, also designate if they are HQ, RL

2.F-4

WHC-SP-1097

FY 1995 MYPP

**LIQUID EFFLUENT
WBS 1.2.2.1**

2.F. Milestone List - Liquid Effluent Milestones Funded by Other Programs					
Milestone Type*	Control Number	RL WBS	ADS Number	Milestone Description	Milestone Completion Date
	FY 1995				
Contractor	LEP-94-005		2300-0	Effluent Treatment Facility Turnover	10-01-94
Contractor	LEP-94-024		2300-0	Submit Operation and Maintenance Document to Ecology for Compliance With WAC 173-240-150	12-31-94
TPA - RL	LEP-95-001 M-17-34		2300-0	Cease All Discharges to the 216-W-LWC Crib	01-31-95
TPA - RL	LEP-95-003 M-17-23		2300-0	Cease PUREX Plant Cooling Water Discharge to 216-B-3 Pond	06-30-95
TPA - RL	LEP-95-004 M-17-04		2300-0	Cease B Plant Chemical Sewer Discharge	06-30-95
TPA - RL	LEP-95-005 M-17-16		2300-0	Cease All Discharges to the 216-Z-20 Crib	06-30-95
TPA - RL	LEP-95-006 M-17-18		2300-0	Cease Discharge of 242-S Evaporator Steam Condensate to the 216-U-14 Ditch	06-30-95
TPA - RL	LEP-95-012 M-17-17		2300-0	Cease Discharge of U03/U Plant Wastewater to the 216-U-14 Ditch	06-30-95
TPA - RL	LEP-95-013 M-17-19		2300-0	Cease Discharge to the 216-U-17 Crib	06-30-95
TPA - RL	LEP-95-014 M-17-20		2300-0	Implement BAT/AKART for the PUREX Plant Process Condensate	06-30-95 Complete
TPA - RL	LEP-95-015 M-17-21		2300-0	Implement BAT/AKART for the PUREX Plant Ammonia Scrubber Condensate	06-30-95 Complete
TPA - RL	LEP-95-016 M-17-22		2300-0	Cease Discharge of PUREX Plant Steam Condensate to the 216-B-3 Pond	06-30-95
TPA - RL	LEP-95-017 M-17-24		2300-0	Cease Discharge of PUREX Plant Chemical Sewer to the 216-B-3 Pond	06-30-95
TPA - RL	LEP-95-019 M-17-38		2300-0	Cease All Discharges to the 284-W Powerplant Pond	06-30-95

2.F-5

MHC-SP-1097

**LIQUID EFFLUENT
WBS 1.2.2.1**

FY 1995 MYPP

2.F. Milestone List - Liquid Effluent Milestones Funded by Other Programs					
Milestone Type*	Control Number	RL WBS	ADS Number	Milestone Description	Milestone Completion Date
TPA - RL	LEP-95-020 M-17-39		2300-0	Cease All Discharges to the 216-S-26 Crib	06-30-95
TPA - RL	LEP-95-021 M-17-41		2300-0	Cease All Discharges to the 216-T-4-2 Ditch	06-30-95
TPA - RL	LEP-95-022 M-17-42		2300-0	Cease All Discharges to the 216-T-1 Ditch	06-30-95
TPA - RL	LEP-95-023 M-17 43		2300-0	Cease All Discharges to the 2101-M Pond	06-30-95
TPA - RL	LEP-95-024 CO DE91NM-177		2300-0	B Plant Chemical Sewer Approved Pretreatment Permit	06-30-95
TPA - RL	LEP-95-025 CO DE91NM-177		2300-0	Submit the PUREX Plant Chemical Sewer Approved Pretreatment Permit	06-30-95
TPA - RL	LEP-95-026 CO DE91NM-177		2300-0	Achieve Compliance U03 Plant Process Condensate Approved Treatment Permit	06-30-95
TPA - RL	LEP-95-027 CO DE91NM-177		2300-0	Achieve Compliance 222-S Lab Wastewater Approved Pretreatment Permit	06-30-95

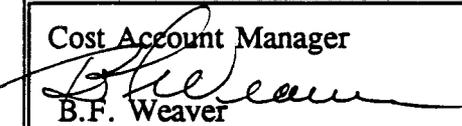
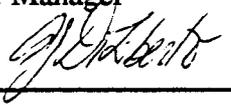
- * TPA, HQ, RL, and selected contractor milestone
- * On Tri-Party Agreement Milestones, also designate if they are HQ, RL

2.F-6

MHC-SP-1097

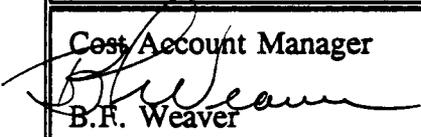
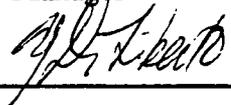
Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Readiness Review Team Declares Readiness (200 Area ETF)		Date: 08-31-94	
Assigned To: B.F Weaver		CIN: LET-94-041	
Program WBS Designator: Liquid Effluents WBS 1.2.2.1		Due Date: 04-03-95	
Control Number: LEP-94-002		Rev: 1	
MILESTONE TYPE: <input type="checkbox"/> DOE-HQ <input type="checkbox"/> DOE-RL <input checked="" type="checkbox"/> CONTRACTOR	DIVISION: <input type="checkbox"/> State <input type="checkbox"/> Federal <input type="checkbox"/> DOE <input type="checkbox"/> RCRA <input checked="" type="checkbox"/> TPA Number <u>M-17-00A</u>	DELIVERABLE: <input type="checkbox"/> Report <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Drawings <input type="checkbox"/> Other (specify)	ADDRESS TO: <input type="checkbox"/> DOE-HQ <input type="checkbox"/> DOE-RL <input checked="" type="checkbox"/> Other (specify) (Readiness Review Board)
Milestone Description: The Readiness Review Team declares readiness to the Readiness Review Board stating that the Effluent treatment Facility is now ready to start hot operations. MRP 5.50, DOE Order 5480.31 "Start and Restart of Nuclear Facilities", and DOE Std 3006-93 "Planning and Conduct of Operational Readiness Reviews" will govern this readiness review. Originally FY 1994 milestone deferred to FY 1995, tied to TPA Change Request M-17-93-07 which moved Project C-018H completion to June 1995.			
Description of what constitutes completion of this milestone: A letter will be prepared by the Readiness Review Team and sent to the Readiness Review Board declaring facility readiness.			
Cost Account Manager B.F. Weaver		Program/Project Manager A. J. DiLiberto	
Date		Date	
9/21/94		9-21-94	
Program Element Manager W.C. Alaconis		DOE Monitor A. V. Beard	
Date		Date	
9/21/94		9-21-94	

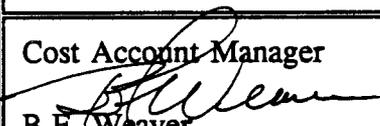
Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Initiate Operations - 200 Area Effluent Treatment Facility (ADS 2300-0) (M-17-14)		Date: 08-31-94	
Assigned To: B.F. Weaver		CIN:	
Program WBS Designator: Liquid Effluent WBS 1.2.2.1		Due Date: 06-30-95	
Control Number: LEP-95-011		Rev: 0	
MILESTONE TYPE: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> CONTRACTOR	DIVISION: <input type="checkbox"/> State <input type="checkbox"/> Federal <input type="checkbox"/> DOE <input type="checkbox"/> RCRA <input checked="" type="checkbox"/> TPA Number <u>M-17-14</u>	DELIVERABLE: <input type="checkbox"/> Report <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Drawings <input type="checkbox"/> Other (specify)	ADDRESS TO: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> Other (specify)
Milestone Description: Operation of the 200 Area ETF will commence after completion of all readiness activities and the plant has been declared ready for operation by DOE-RL.			
Description of what constitutes completion of this milestone: Letter to DOE-RL indicating operations have begun.			
Cost Account Manager B.F. Weaver <i>B.F. Weaver</i> 8-30-94		Program/Project Manager A. J. DiLiberto <i>A. J. DiLiberto</i> 8-30-94	
Program Element Manager W.C. Alaconis <i>W.C. Alaconis</i> 8/30/94		DOE Monitor A. V. Beard <i>A. V. Beard</i> 9-21-94	

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Operate The 200 Area Treated Effluent Disposal Facility (ADS 2300-0) (M-17-08)		Date: 08-31-94	
Assigned To: B.F. Weaver		CIN:	
Program WBS Designator: Liquid Effluent WBS 1.2.2.1		Due Date: 06-30-95	
Control Number: LEP-95-008		Rev: 0	
MILESTONE TYPE: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> CONTRACTOR	DIVISION: <input type="checkbox"/> State <input type="checkbox"/> Federal <input type="checkbox"/> DOE <input type="checkbox"/> RCRA <input checked="" type="checkbox"/> TPA Number <u>M-17-08</u>	DELIVERABLE: <input type="checkbox"/> Report <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Drawings <input type="checkbox"/> Other (specify)	ADDRESS TO: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> Other (specify)
Milestone Description: The 200 Area Liquid Effluent treatment facility will begin operations to dispose of treated Phase I stream effluents. All required approvals will be obtained to initiate operations of the pipeline.			
Description of what constitutes completion of this milestone: Prepare a letter to DOE-RL documenting the commencement of operations. Documentation will be sufficient to support notification of completion of milestone to the EPA/Ecology.			
Cost Account Manager  B.F. Weaver		Program/Project Manager  A. J. DiLiberto	
Date	8-30-94	Date	8-30-94
Program Element Manager  W.C. Alaconis		DOE Monitor  A. V. Beard	
Date	8/30/94	Date	9-21-94

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Complete the Nuclear Process Operator Initial Certification		Date: 08-31-94	
Assigned To: B.F. Weaver		CIN:	
Program WBS Designator: Liquid Effluent WBS 1.2.2.1		Due Date: 03-17-95	
Control Number: LEP-95-033		Rev: 0	
MILESTONE TYPE: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> CONTRACTOR	DIVISION: <input type="checkbox"/> State <input type="checkbox"/> Federal <input type="checkbox"/> DOE <input type="checkbox"/> RCRA <input type="checkbox"/> TPA Number _____	DELIVERABLE: <input type="checkbox"/> Report <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Drawings <input type="checkbox"/> Other (specify)	ADDRESS TO: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> Other (specify)
Milestone Description: Provide the necessary training to complete certification requirements for Nuclear Process Operators necessary to operate the 200 Area Liquid Effluent Treatment Facility.			
Description of what constitutes completion of this milestone: Provide a letter to DOE-RL stating that the operators have been successfully certified. Milestone will be considered complete when a sufficient number of nuclear process operators have successfully certified and are qualified to startup and operate the facility.			
Cost Account Manager B.F. Weaver <i>B.F. Weaver</i> 8-30-94	Program/Project Manager A. J. DiLiberto <i>A. J. DiLiberto</i> 8-30-94		
Program Element Manager W.C. Alaconis <i>W.C. Alaconis</i> 8/30/94	DOE Monitor A. V. Beard <i>A. V. Beard</i> 9-21-94		

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Treat and Dispose of 2 LERF Basins Contents (up to 13 million gallons) of 242-A Process Condensate Through the 200 Area ETF			Date: 08-31-94
Assigned To: B.F. Weaver			CIN:
Program WBS Designator: Liquid Effluent WBS 1.2.2.1.2			Due Date: 09-30-96
Control Number: LEP-96-004			Rev: 0
MILESTONE TYPE: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> CONTRACTOR	DIVISION: <input checked="" type="checkbox"/> State <input type="checkbox"/> Federal <input type="checkbox"/> DOE <input type="checkbox"/> RCRA <input type="checkbox"/> TPA Number _____	DELIVERABLE: <input type="checkbox"/> Report <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Drawings <input type="checkbox"/> Other (specify)	ADDRESS TO: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> Other (specify)
Milestone Description: Process total inventory of 2 LERF basins and dispose to the ETF SALADS.			
Description of what constitutes completion of this milestone: Completely process the total inventory in 2 LERF basins through the 200 Area ETF and dispose of this treated effluent to the SALADS. Prepare a letter to DOE-RL declaring completion of this processing campaign.			
Cost Account Manager <i>B.F. Weaver</i> B.F. Weaver		Date 8-30-94	
Program/Project Manager A. J. DiLiberto		Date 8/30/94	
Program Element Manager <i>W.C. Alaconis</i> W.C. Alaconis		Date 8/30/94	
DOE Monitor A. V. Beard		Date 9-21-94	

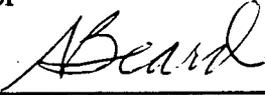
Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Complete Operations Test Procedures for the 200 Area Liquid Effluent Treatment Facility		Date: 08-31-94	
Assigned To: B.F. Weaver		CIN:	
Program WBS Designator: Liquid Effluent WBS 1.2.2.1		Due Date: 02-28-95	
Control Number: LEP-95-035		Rev: 0	
MILESTONE TYPE: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> CONTRACTOR	DIVISION: <input type="checkbox"/> State <input type="checkbox"/> Federal <input type="checkbox"/> DOE <input type="checkbox"/> RCRA <input checked="" type="checkbox"/> TPA Number <u>M-17-00A</u>	DELIVERABLE: <input type="checkbox"/> Report <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Drawings <input type="checkbox"/> Other (specify)	ADDRESS TO: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> Other (specify)
Milestone Description: Perform Operations Test Procedures to support the start up of the 200 Area Liquid Effluent Treatment Facility.			
Description of what constitutes completion of this milestone: Prepare a letter to DOE-RL documenting the successful completion of the Operating Test Procedures for the facility. This milestone based on facility completion and turnover to operations on October 1, 1994			
Cost Account Manager  B.F. Weaver		Program/Project Manager  A. J. DiLiberto	
Date 8-30-94		Date 8/30/94	
Program Element Manager  W.C. Alaconis		DOE Monitor  A. V. Beard	
Date 8/30/94		Date 9-21-94	

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Westinghouse Hanford Company Declares 200 Area Liquid Effluent Treatment Facility Readiness to DOE-RL		Date: 08-31-94	
Assigned To: B.F. Weaver		CIN: 	
Program WBS Designator: Liquid Effluent WBS 1.2.2.1		Due Date: 04-30-95 05-01-95	
Control Number: LEP-95-034		Rev: 0	
MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
<input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> CONTRACTOR	<input type="checkbox"/> State <input type="checkbox"/> Federal <input type="checkbox"/> DOE <input type="checkbox"/> RCRA <input checked="" type="checkbox"/> TPA Number <u>M-17-00A</u>	<input type="checkbox"/> Report <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Drawings <input type="checkbox"/> Other (specify)	<input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> Other (specify)
Milestone Description:			
Prepare a letter to document the completion of all readiness activities required to begin operations of the 200 Area Liquid Effluent Treatment Facility.			
Description of what constitutes completion of this milestone:			
The milestone will be considered complete when the readiness review team notifies the Facility Manager that all issues concerning facility startup have been resolved. The Facility Manager will advise DOE-RL via a letter of the plant status.			
Cost Account Manager		Program/Project Manager	
 B.F. Weaver	Date 8-30-94	 A. J. DiLiberto	Date 8/30/94
Program Element Manager		DOE Monitor	
 W.C. Alaconis	Date 8/30/94	 A. V. Beard	Date 9-21-94

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Treat and Dispose of 50 Million Gallons of process Wastewater Through the 300 Area TEDF		Date: 08-31-94	
Assigned To: D.W. Lindsey		CIN:	
Program WBS Designator: Liquid Effluent WBS 1.2.2.1.3		Due Date: 09-30-96	
Control Number: LEP-96-006		Rev: 0	
MILESTONE TYPE: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> CONTRACTOR	DIVISION: <input type="checkbox"/> State <input checked="" type="checkbox"/> Federal <input type="checkbox"/> DOE <input type="checkbox"/> RCRA <input type="checkbox"/> TPA Number _____	DELIVERABLE: <input type="checkbox"/> Report <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Drawings <input type="checkbox"/> Other (specify)	ADDRESS TO: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> Other (specify)
Milestone Description: Treat and dispose of 50 million gallons, or total amount of process wastewater generated in the 300 Area through the 300 Area TEDF.			
Description of what constitutes completion of this milestone: Prepare a letter to DOE-RL declaring volume of treated wastewater disposed of through the outfall pipeline during FY 1996.			
Cost Account Manager		Program/Project Manager	
D.W. Lindsey	Date 8/30/94	A. J. DiLiberto	Date 8/31/94
Program Element Manager		DOE Monitor	
D.W. Lindsey	Date 8/30/94	A. V. Beard	Date 9-21-94

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Complete Project W-353, "300 Area Diverter Upgrades"		Date: 08-31-94	
Assigned To: L.W. Roberts		CIN:	
Program WBS Designator: Liquid Effluent WBS 1.2.2.1		Due Date: 05-31-95	
Control Number: LEP-95-040		Rev: 0	
MILESTONE TYPE: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> CONTRACTOR	DIVISION: <input type="checkbox"/> State <input type="checkbox"/> Federal <input type="checkbox"/> DOE <input type="checkbox"/> RCRA <input type="checkbox"/> TPA Number _____	DELIVERABLE: <input type="checkbox"/> Report <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Drawings <input type="checkbox"/> Other (specify)	ADDRESS TO: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> Other (specify)
Milestone Description: Complete construction, project complete as defined in the Functional Design Criteria document.			
Description of what constitutes completion of this milestone: Prepare a letter to DOE-RL documenting completion of project activities and forwarding project close-out documentation.			
Cost Account Manager _____ Date _____		Program/Project Manager _____ Date _____	
L.W. Roberts <i>LWRoberts</i> 8/30/94		A. J. DiLiberto <i>ADiLiberto</i> 8/31/94	
Program Element Manager _____ Date _____		DOE Monitor _____ Date _____	
<i>[Signature]</i> 8/30/94		A. V. Beard <i>Beard</i> 9-21-94	

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Complete Project W-345, "307 Basins Maintenance Expense Project"		Date: 08-31-94	
Assigned To: L.W. Roberts		CIN:	
Program WBS Designator: Liquid Effluent WBS 1.2.2.1		Due Date: 12-31-94	
Control Number: LEP-95-038		Rev: 0	
MILESTONE TYPE: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> CONTRACTOR	DIVISION: <input type="checkbox"/> State <input type="checkbox"/> Federal <input type="checkbox"/> DOE <input type="checkbox"/> RCRA <input type="checkbox"/> TPA Number _____	DELIVERABLE: <input type="checkbox"/> Report <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Drawings <input type="checkbox"/> Other (specify)	ADDRESS TO: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> Other (specify)
Milestone Description: Complete Project W-345 as defined in the Functional Design Criteria document and declare basins operational.			
Description of what constitutes completion of this milestone: Complete all physical maintenance activities and project documentation to allow the 300 Area to initiate operations. Letter to RL documenting project completion.			
Cost Account Manager L.W. Roberts <i>LWRoberts</i> 8/30/94	Program/Project Manager A. J. DiLiberto <i>AJDiLiberto</i> 8/31/94		
Program Element Manager <i>[Signature]</i> 8/30/94	DOE Monitor A. V. Beard <i>ABeard</i> 9-21-94		

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Operate 300 Area Treated Effluent Disposal Facility (M-17-09)		Date: 08-31-94	
Assigned To: D.W. Lindsey		CIN:	
Program WBS Designator: Liquid Effluent WBS 1.2.2.1.3/1A2311		Due Date: 12-31-94	
Control Number: LEP-95-036		Rev: 0	
MILESTONE TYPE: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> CONTRACTOR	DIVISION: <input type="checkbox"/> State <input type="checkbox"/> Federal <input type="checkbox"/> DOE <input type="checkbox"/> RCRA <input checked="" type="checkbox"/> TPA Number <u>M-17-09</u>	DELIVERABLE: <input type="checkbox"/> Report <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Drawings <input type="checkbox"/> Other (specify)	ADDRESS TO: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> Other (specify)
Milestone Description: Initiate full-scale hot operations of the 300 Area Treated Effluent Disposal Facility with permitted disposal of treated effluent to surface water.			
Description of what constitutes completion of this milestone: 300 Area Process wastewater will be physically diverted from process trenches and will flow into the 300 Area TEDF. Prepare a letter to DOE-RL indicating operations have begun. Receipt of startup approval is needed from DOE-RL prior to completion of this task. Documentation will be sufficient to support notification of completion of milestone to EPA/Ecology.			
Cost Account Manager D.W. Lindsey 	Date 8/30/94	Program/Project Manager A. J. DiLiberto 	Date 8/31/94
Program Element Manager 	Date 8/30/94	DOE Monitor A. V. Beard 	Date 9-2-94

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: NESHAPS - 340 Facility Stack Monitor ^{(PROJECT W-387) CONSTRUCTION} Upgrades ^{Complete}		Date: <i>ajb</i> 08-31-94	
Assigned To: L.W. Roberts		CIN:	
Program WBS Designator: Liquid Effluent WBS 1.2.2.1		Due Date: 12-30-94	
Control Number: LEP-95-039		Rev: 0	
MILESTONE TYPE: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> CONTRACTOR	DIVISION: <input type="checkbox"/> State <input checked="" type="checkbox"/> Federal (NESHAPS) <input type="checkbox"/> DOE <input type="checkbox"/> RCRA <input type="checkbox"/> TPA Number _____	DELIVERABLE: <input type="checkbox"/> Report <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Drawings <input type="checkbox"/> Other (specify)	ADDRESS TO: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> Other (specify)
Milestone Description: Complete 340 Facility stack monitor upgrades to meet NESHAPS Permit requirements as defined in the Functional Design Criteria document.			
Description of what constitutes completion of this milestone: Complete physical construction activities and prepare a letter to DOE-RL documenting completion.			
Cost Account Manager L.W. Roberts <i>LW Roberts</i>	Date 8/30/94	Program/Project Manager A. J. DiLiberto <i>AJ DiLiberto</i>	Date 9/31/94
Program Element Manager <i>[Signature]</i>	Date 8/30/94	DOE Monitor A. V. Beard <i>A Beard</i>	Date 9-21-94

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Implement BAT/AKART - 200 Area TEDF Streams (ADS 2300-0) (M-17-08B)		Date: 08-31-94	
Assigned To: A.J. DiLiberto		CIN:	
Program WBS Designator: Liquid Effluent WBS 1.2.2.1.2/1A2211		Due Date: 06-30-95	
Control Number: LEP-95-009		Rev: 0	
MILESTONE TYPE: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> CONTRACTOR	DIVISION: <input type="checkbox"/> State <input type="checkbox"/> Federal <input type="checkbox"/> DOE <input type="checkbox"/> RCRA <input checked="" type="checkbox"/> TPA Number <u>M-17-08B</u>	DELIVERABLE: <input type="checkbox"/> Report <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Drawings <input type="checkbox"/> Other (specify)	ADDRESS TO: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> Other (specify)
Milestone Description: Implement BAT/AKART at the Phase I stream facilities scheduled to discharge to the 200 Area TEDF pipeline. BAT will be sufficient to meet the 200 Area TEDF discharge requirements or the stream will be terminated. All Phase I streams defined in the TPA Milestone M-17-08B listing will be included.			
Description of what constitutes completion of this milestone: Prepare a letter to DOE-RL documenting actions taken to implemet BAT/AKART in the facilities scheduled to discharge to the 200 Area TEDF . Documentation will be sufficient to support notification of completion of milestone to the EPA/Ecology.			
Cost Account Manager A.J. DiLiberto <i>AJ DiLiberto</i>	Date 8/30/94	Program/Project Manager A. J. DiLiberto <i>AJ DiLiberto</i>	Date 8/30/94
Program Element Manager W.C. Alaconis <i>W.C. Alaconis</i>	Date 8/31/94	DOE Monitor A. V. Beard <i>A Beard</i>	Date 9-21-94

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete Operational Testing of LERF Basin #44	Date: 08-31-94
Assigned To: A.J. DiLiberto	CIN: LET-94-041
Program WBS Designator: Liquid Effluent WBS 1.2.2.1	Due Date: 11-15-94
Control Number: LEP-94-028	Rev: 1

MILESTONE TYPE: <input type="checkbox"/> DOE-HQ <input type="checkbox"/> DOE-RL <input checked="" type="checkbox"/> CONTRACTOR	DIVISION: <input type="checkbox"/> State <input type="checkbox"/> Federal <input type="checkbox"/> DOE <input type="checkbox"/> RCRA <input checked="" type="checkbox"/> TPA Number <u>M-17-00A</u>	DELIVERABLE: <input type="checkbox"/> Report <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Drawings <input type="checkbox"/> Other (specify)	ADDRESS TO: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> Other (specify)
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Milestone Description:
 Complete Operational Testing of the LERF Basin # 44
 Milestone moved from FY 1994 FYWP. Milestone due date in the FYWP was TBD..

Description of what constitutes completion of this milestone:
 A letter will be prepared and sent to DOE-RL to document the completion of the required testing.

Cost Account Manager A.J. DiLiberto <i>AJ DiLiberto</i> 8/31/94	Program/Project Manager A. J. DiLiberto <i>AJ DiLiberto</i> 8/31/94
Program Element Manager W.C. Alaconis <i>W.C. Alaconis</i> 8/31/94	DOE Monitor A. V. Beard <i>A Beard</i> 9-21-94

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Start Construction of Phase II Stream BAT/AKART Implementation Project W-252 (ADS 2300-1)			Date: 08-31-94
Assigned To: P.K. Sato			CIN:
Program WBS Designator: Liquid Effluent WBS 1.2.2.1.5/1A2502			Due Date: 05-30-96
Control Number: LEP-96-002			Rev: 0
MILESTONE TYPE: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> CONTRACTOR	DIVISION: <input type="checkbox"/> State <input type="checkbox"/> Federal <input type="checkbox"/> DOE <input type="checkbox"/> RCRA <input checked="" type="checkbox"/> TPA Number <u>M-17-00B</u>	DELIVERABLE: <input type="checkbox"/> Report <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Drawings <input type="checkbox"/> Other (specify)	ADDRESS TO: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> Other (specify)
Milestone Description: Notice of Award issued to contractor with instructions to begin construction.			
Description of what constitutes completion of this milestone: Letter sent to DOE-RL documenting issuance of Notice of Award to Contractor.			
Cost Account Manager C.E. Hatch <i>C.E. Hatch</i> 8/31/94		Program/Project Manager A. J. DiLiberto <i>A.J. DiLiberto</i> 8/31/94	
Program Element Manager W.C. Alaconis <i>W.C. Alaconis</i> 8/31/94		DOE Monitor A. V. Beard <i>A.V. Beard</i> 9-21-94	

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete Annual Evaluation of Tritium Treatment Technology (M-26-05B-H)	Date: 08-31-94
Assigned To: W.L. Allen	CIN:
Program WBS Designator: Liquid Effluent WBS 1.2.2.1.4	Due Date: 07-31-95 to RL 08-31-95 to WDOE/EPA
Control Number: LEP-95-029; LEP-96-003; LEP-97-003; LEP-98-004; LEP-99-001; LEP-00-001; LEP-01-001	Rev: 0

MILESTONE TYPE: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> CONTRACTOR	DIVISION: <input type="checkbox"/> State <input type="checkbox"/> Federal <input type="checkbox"/> DOE <input type="checkbox"/> RCRA <input checked="" type="checkbox"/> TPA Number <u>M-26-05B-H</u>	DELIVERABLE: <input checked="" type="checkbox"/> Report <input type="checkbox"/> Letter <input type="checkbox"/> Drawings <input type="checkbox"/> Other (specify)	ADDRESS TO: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> Other (specify)
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Milestone Description:
 Prepare an annual report to evaluate the development status of tritium treatment technology that would be pertinent to the cleanup of tritiated waste water (the 242-A Evaporator Process Condensate liquid effluent) and tritium contaminated groundwater on the Hanford Site.

Milestones for FY 1996-2001 dues dates are the same except for the year change.

Description of what constitutes completion of this milestone:

Submit a completed report to RL for their approval and forwarding to Ecology and the EPA.

Cost Account Manager W.L. Allen <i>[Signature]</i> 8/31/94	Date	Program/Project Manager A. J. DiLiberto <i>[Signature]</i> 8/31/94	Date
Program Element Manager J.D. Williams <i>[Signature]</i> 8/31/94	Date	DOE Monitor A. V. Beard <i>[Signature]</i> 9-21-94	Date

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Complete Groundwater Impact Assessment for T-1 Ditch		Date: 08-30-94	
Assigned To: P.M. Olson		CIN:	
Program WBS Designator: Liquid Effluent WBS 1.2.2.1.4		Due Date: 02-28-95	
Control Number: LEP-95-031		Rev: 0	
MILESTONE TYPE: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> CONTRACTOR	DIVISION: <input checked="" type="checkbox"/> State <input checked="" type="checkbox"/> Federal <input type="checkbox"/> DOE <input type="checkbox"/> RCRA <input type="checkbox"/> TPA Number _____	DELIVERABLE: <input checked="" type="checkbox"/> Report <input type="checkbox"/> Letter <input type="checkbox"/> Drawings <input type="checkbox"/> Other (specify)	ADDRESS TO: <input type="checkbox"/> DOE-HQ <input type="checkbox"/> DOE-RL <input checked="" type="checkbox"/> Other (specify) Ecology & EPA
Milestone Description: Prepare and issue a report assessing the impact of past discharges and continuing discharges on the groundwater beneath and around the T-1 Ditch.			
Description of what constitutes completion of this milestone: Milestone will be completed with the completion of the assessment and issuance of the required report to Ecology and the EPA.			
Cost Account Manager <i>P.M. Olson</i> P.M. Olson		Program/Project Manager <i>A. J. DiLiberto</i> A. J. DiLiberto	
Date		Date	
8/31/94		8/31/94	
Program Element Manager <i>J.D. Williams</i> J.D. Williams		DOE Monitor <i>A. V. Beard</i> A. V. Beard	
Date		Date	
8/31/94		9.21.94	

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete Groundwater Impact Assessment for 216-B3 Pond	Date: 08-30-94
Assigned To: P.M. Olson	CIN:
Program WBS Designator: Liquid Effluent WBS 1.2.2.1.4	Due Date: 01-31-95
Control Number: LEP-95-030	Rev: 0

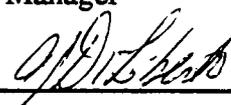
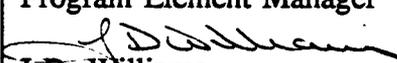
MILESTONE TYPE: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> CONTRACTOR	DIVISION: <input checked="" type="checkbox"/> State <input checked="" type="checkbox"/> Federal <input type="checkbox"/> DOE <input type="checkbox"/> RCRA <input type="checkbox"/> TPA Number _____	DELIVERABLE: <input checked="" type="checkbox"/> Report <input type="checkbox"/> Letter <input type="checkbox"/> Drawings <input type="checkbox"/> Other (specify)	ADDRESS TO: <input type="checkbox"/> DOE-HQ <input type="checkbox"/> DOE-RL <input checked="" type="checkbox"/> Other (specify) Ecology & EPA
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Milestone Description:

Prepare and issue a report assessing the impact of past discharges and continuing discharges on the groundwater beneath and around the 216-B3 Pond.

Description of what constitutes completion of this milestone:

Milestone will be completed with the completion of the assessment and issuance of the required report to Ecology and the EPA.

Cost Account Manager  P.M. Olson	Date 8/31/94	Program/Project Manager  A. J. DiLiberto	Date 8/31/94
Program Element Manager  J.D. Williams	Date 8/31/94	DOE Monitor  A. V. Beard	Date 9-21-94

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete On Job Training (200 Area ETF personnel)		Date: 08-31-94	
Assigned To: B.F. Weaver		CIN: LET-94-041	
Program WBS Designator: Liquid Effluent WBS 1.2.2.1		Due Date: 01-27-95	
Control Number: LEP-94-004		Rev: 1	
MILESTONE TYPE: <input type="checkbox"/> DOE-HQ <input type="checkbox"/> DOE-RL <input checked="" type="checkbox"/> CONTRACTOR	DIVISION: <input type="checkbox"/> State <input type="checkbox"/> Federal <input type="checkbox"/> DOE <input type="checkbox"/> RCRA <input checked="" type="checkbox"/> TPA Number <u>M-17-00A</u>	DELIVERABLE: <input type="checkbox"/> Report <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Drawings <input type="checkbox"/> Other (specify)	ADDRESS TO: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> Other (specify)
<p>Milestone Description:</p> <p>Complete On Job Training to support start up of the Effluent treatment facility. Training will be conducted in accordance with DOE Orders 5480.20, 5480.19, 5700.7C, and 4330.4A.</p> <p>Originally FY 1994 milestone deferred to FY 1995, tied to TPA Change Request M-17-93-07 which moved Project C-018H completion to June 1995.</p>			
<p>Description of what constitutes completion of this milestone:</p> <p>Completion of this milestone will be a letter to DOE-RL documenting the personnel that are on board, training/certification status for the personnel, and a certification that operational testing and eventual hot start up can be supported with this level of staffing and training.</p>			
Cost Account Manager B.F. Weaver <i>B.F. Weaver</i> 8-30-94	Date	Program/Project Manager A. J. DiLiberto <i>A. J. DiLiberto</i> 8-30-94	Date
Program Element Manager W.C. Alaconis <i>W.C. Alaconis</i> 8/30/94	Date	DOE Monitor A. V. Beard <i>A. V. Beard</i> 9.2.94	Date

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Submit Operations and Maintenance Document to Ecology for Compliance with WAC 173-240-150 (200 Area ETF)		Date: 08-31-94	
Assigned To: B.F. Weaver		CIN: LET-94-022 dtd 05-03-94	
Program WBS Designator: Liquid Effluent WBS 1.2.2.1		Due Date: 11-30-94 to RL 12-31-94 to Ecology	
Control Number: LEP-94-024		Rev: 1	
MILESTONE TYPE: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> CONTRACTOR	DIVISION: <input checked="" type="checkbox"/> State <input type="checkbox"/> Federal <input type="checkbox"/> DOE <input type="checkbox"/> RCRA <input type="checkbox"/> TPA Number _____	DELIVERABLE: <input type="checkbox"/> Report <input type="checkbox"/> Letter <input type="checkbox"/> Drawings <input checked="" type="checkbox"/> Other (specify) List, see below	ADDRESS TO: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input checked="" type="checkbox"/> Other (specify) Ecology
Milestone Description: Prepare and submit a list of the titles and document numbers (of operation and maintenance procedures), which contain the information required by WAC-173-240-150, prior to completion of construction of Projects C-018H and W-049H. For this purpose, the phrase "prior to completion of construction", as stated in WAC 173-240-150, means prior to operation Milestone moved from FY 1994 FYWP.			
Description of what constitutes completion of this milestone: Completed list as described above delivered to RL for approval and forwarding to Ecology.			
Cost Account Manager B.F. Weaver <i>B.F. Weaver</i> 8-30-94	Date 8-30-94	Program/Project Manager A. J. DiLiberto <i>A. J. DiLiberto</i> 8-30-94	Date 8-30-94
Program Element Manager W.C. Alacomis <i>W.C. Alacomis</i> 8/30/94	Date 8/30/94	DOE Monitor A. V. Beard <i>A. Beard</i> 9-21-94	Date 9-21-94

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Implement BAT/AKART for 242-A Evaporator Process Condensate (ADS 2300-0) (M-17-29)		Date: 08-31-94	
Assigned To: B.F. Weaver		CIN:	
Program WBS Designator: Liquid Effluent WBS 1.2.2.1.2/1A2211		Due Date: 06-30-95	
Control Number: LEP-95-018		Rev: 0	
MILESTONE TYPE: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> CONTRACTOR	DIVISION: <input type="checkbox"/> State <input type="checkbox"/> Federal <input type="checkbox"/> DOE <input type="checkbox"/> RCRA <input checked="" type="checkbox"/> TPA Number <u>M-17-29</u>	DELIVERABLE: <input type="checkbox"/> Report <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Drawings <input type="checkbox"/> Other (specify)	ADDRESS TO: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> Other (specify)
Milestone Description: Begin operation of the 200 Area ETF. Provide a letter to DOE-RL stating that ETF operations have begun which implements BAT/AKART for the 242-A Evaporator Process Condensate.			
Description of what constitutes completion of this milestone: Include completion of this milestone in the letter to DOE-RL indicating ETF operations (M-17-14/LEP-95-008) have begun.			
Cost Account Manager <i>B.F. Weaver</i> B.F. Weaver		Program/Project Manager <i>A. J. DiLiberto</i> A. J. DiLiberto	
Date		Date	
8-30-94		8/30/94	
Program Element Manager <i>W.C. Alaconis</i> W.C. Alaconis		DOE Monitor <i>A. V. Beard</i> A. V. Beard	
Date		Date	
8/30/94		9-21-94	

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete Liquid Effluent Treatment Facility/Upgrades for Phase I Streams (ADS 2300-0) (M-17-00A)		Date: 08-31-94	
Assigned To: A.J. DiLiberto		CIN:	
Program WBS Designator: Liquid Effluent WBS 1.2.2.1.2/1A2211		Due Date: 06-30-95	
Control Number: LEP-95-002		Rev: 0	
MILESTONE TYPE: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> CONTRACTOR	DIVISION: <input type="checkbox"/> State <input type="checkbox"/> Federal <input type="checkbox"/> DOE <input type="checkbox"/> RCRA <input checked="" type="checkbox"/> TPA Number <u>M-17-00A</u>	DELIVERABLE: <input type="checkbox"/> Report <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Drawings <input type="checkbox"/> Other (specify)	ADDRESS TO: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> Other (specify)
<p>Milestone Description:</p> <p>Verify completion of all the necessary upgrades to Phase I Stream facilities as defined in the approved BAT/AKART documents to cease discharge of untreated Phase I stream effluents to the soil column at the Hanford Site.</p>			
<p>Description of what constitutes completion of this milestone:</p> <p>Prepare a letter to DOE-RL documenting actions taken to cease discharge. Documentation will be sufficient to support notification of completion of milestone to the EPA/Ecology.</p>			
Cost Account Manager	Date	Program/Project Manager	Date
A.J. DiLiberto	<i>A.J. DiLiberto</i> 8/31/94	A. J. DiLiberto	<i>A.J. DiLiberto</i> 8/31/94
Program Element Manager	Date	DOE Monitor	Date
W.C. Alaconis	<i>W.C. Alaconis</i> 8/31/94	A. V. Beard	<i>A.V. Beard</i> 9/21/94

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Remove All Hazardous Waste Residues From LERF Units (ADS 2300-0) (M-26-04)		Date: 08-31-94	
Assigned To: A.J. DiLiberto		CIN:	
Program WBS Designator: Liquid Effluent WBS 1.2.2.1.2/1A2211		Due Date: 06-30-95	
Control Number: LEP-95-007		Rev: 0	
MILESTONE TYPE: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> CONTRACTOR	DIVISION: <input type="checkbox"/> State <input type="checkbox"/> Federal <input type="checkbox"/> DOE <input type="checkbox"/> RCRA <input checked="" type="checkbox"/> TPA Number <u>M-26-04</u>	DELIVERABLE: <input type="checkbox"/> Report <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Drawings <input type="checkbox"/> Other (specify)	ADDRESS TO: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> Other (specify)
Milestone Description: Perform all necessary actions to remove all hazardous waste residues from the LERF basins. Actions to include single rinse of each basin and process through the 200 Area ETF.			
Description of what constitutes completion of this milestone: Prepare a letter to DOE-RL documenting actions taken to complete the removal. Documentation will be sufficient to support notification of completion of milestone to the EPA/Ecology. (This due date of 06-30-95 is not achievable and is being renegotiated with the regulators)			
Cost Account Manager A.J. DiLiberto <i>A.J. DiLiberto</i> 8/31/94		Program/Project Manager A. J. DiLiberto <i>A.J. DiLiberto</i> 8/31/94	
Program Element Manager W.C. Alaconis <i>W.C. Alaconis</i> 8/31/94		DOE Monitor A. V. Beard <i>A. V. Beard</i> 9/21/94	

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: WHC Readiness Assessment Team Declares 300 Area TEDF Readiness to RL	Date: 08-31-94
Assigned To: C.E. Hatch	CIN:
Program WBS Designator: Liquid Effluent WBS 1.2.2.1	Due Date: 11-14-95
Control Number: LEP-95-043	Rev: 0

MILESTONE TYPE: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> CONTRACTOR	DIVISION: <input type="checkbox"/> State <input type="checkbox"/> Federal <input checked="" type="checkbox"/> DOE <input type="checkbox"/> RCRA <input type="checkbox"/> TPA Number <u>M-17-09</u>	DELIVERABLE: <input type="checkbox"/> Report <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Drawings <input type="checkbox"/> Other (specify)	ADDRESS TO: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> Other (specify)
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Milestone Description:
The WHC Readiness Assessment Team verifies 300 Area TEDF readiness by performing a readiness assessment.

Description of what constitutes completion of this milestone:
Upon completion of Readiness Assessment activities by the Readiness Assessment Team to verify plant readiness to operate, the Director, Liquid Effluents Services, will prepare a letter addressed to DOE-RL declaring that readiness activities have been completed and the 300 Area TEDF is ready to begin operations.

Cost Account Manager A.J. DiLiberto <i>[Signature]</i> 9/21/94	Program/Project Manager A. J. DiLiberto <i>[Signature]</i> 9/21/94
Program Element Manager W.C. Alaconis	DOE Monitor A. V. Beard <i>[Signature]</i> 9-21-94

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: 300 Area TEDF Facility Manager Declares 300 Area TEDF Readiness Assessment to be Complete		Date: 08-31-94	
Assigned To: L.W. Roberts		CIN:	
Program WBS Designator: Liquid Effluent WBS 1.2.2.1		Due Date: 10-31-94	
Control Number: LEP-95-037		Rev: 0	
MILESTONE TYPE: <input type="checkbox"/> DOE-HQ <input type="checkbox"/> DOE-RL <input checked="" type="checkbox"/> CONTRACTOR	DIVISION: <input type="checkbox"/> State <input type="checkbox"/> Federal <input type="checkbox"/> DOE <input type="checkbox"/> RCRA <input checked="" type="checkbox"/> TPA Number <u>M-17-09</u>	DELIVERABLE: <input type="checkbox"/> Report <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Drawings <input type="checkbox"/> Other (specify)	ADDRESS TO: <input type="checkbox"/> DOE-HQ <input type="checkbox"/> DOE-RL <input checked="" type="checkbox"/> Other (specify) Readiness Assessment Team
Milestone Description: Complete all activities in the Plant readiness assessment and prepare a letter declaring readiness to operate.			
Description of what constitutes completion of this milestone: The milestone will be considered complete when the plant readiness team notifies the Facility Manager that all issues concerning facility startup have been resolved. A letter will be prepared and sent to the WHC Readiness Assessment Team from the 300 Area Facilities Manager indicating readiness activities have been successfully completed.			
Cost Account Manager L.W. Roberts <i>[Signature]</i>	Date 9/2/94	Program/Project Manager A. J. DiLiberto <i>[Signature]</i>	Date 9-2-94
Program Element Manager	Date	DOE Monitor A. V. Beard <i>[Signature]</i>	Date 9-21-94

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete Groundwater Impact Assessment for T-4-2 Ditch		Date: 08-30-94	
Assigned To: P.M. Olson		CIN:	
Program WBS Designator: Liquid Effluent WBS 1.2.2.1.4		Due Date: 02-28-95	
Control Number: LEP-95-032		Rev: 0	
MILESTONE TYPE: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> CONTRACTOR	DIVISION: <input checked="" type="checkbox"/> State <input checked="" type="checkbox"/> Federal <input type="checkbox"/> DOE <input type="checkbox"/> RCRA <input type="checkbox"/> TPA Number _____	DELIVERABLE: <input checked="" type="checkbox"/> Report <input type="checkbox"/> Letter <input type="checkbox"/> Drawings <input type="checkbox"/> Other (specify)	ADDRESS TO: <input type="checkbox"/> DOE-HQ <input type="checkbox"/> DOE-RL <input checked="" type="checkbox"/> Other (specify) Ecology & EPA
Milestone Description: Prepare and issue a report assessing the impact of past discharges and continuing discharges on the groundwater beneath and around the T-4-2 Ditch.			
Description of what constitutes completion of this milestone: Milestone will be completed with the completion of the assessment and issuance of the required report to Ecology and the EPA.			
Cost Account Manager P.M. Olson <i>[Signature]</i>	Date 8/31/94	Program/Project Manager A. J. DiLiberto <i>[Signature]</i>	Date 8/31/94
Program Element Manager J.D. Williams <i>[Signature]</i>	Date 8/31/94	DOE Monitor A. V. Beard <i>[Signature]</i>	Date 9-21-94

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Dispose of 500 Million Gallons of Treated Effluent Through the 200 Area TEDF	Date: 08-31-94
Assigned To: B.F. Weaver	CIN:
Program WBS Designator: Liquid Effluent WBS 1.2.2.1.2	Due Date: 09-30-96
Control Number: LEP-96-005	Rev: 0

MILESTONE TYPE: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> CONTRACTOR	DIVISION: <input checked="" type="checkbox"/> State <input type="checkbox"/> Federal <input type="checkbox"/> DOE <input type="checkbox"/> RCRA <input type="checkbox"/> TPA Number _____	DELIVERABLE: <input type="checkbox"/> Report <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Drawings <input type="checkbox"/> Other (specify)	ADDRESS TO: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> Other (specify)
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Milestone Description:

Dispose of 500 million gallons or the total amount of treated effluent into the 200 Area TEDF pipeline during FY 1996.

Description of what constitutes completion of this milestone:

Prepare letter to DOE-RL declaring volume of treated effluent disposed to the 200 Area TEDF SALADS.

Cost Account Manager <i>B.F. Weaver</i> B.F. Weaver	Date 8-30-94	Program/Project Manager <i>A. J. DiLiberto</i> A. J. DiLiberto	Date 8-30-94
Program Element Manager <i>W.C. Alaconis</i> W.C. Alaconis	Date 8/30/94	DOE Monitor <i>A. V. Beard</i> A. V. Beard	Date 9-21-94

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: WHC Declares 200 Area TEDF Readiness	Date: 08-31-94
Assigned To: B.F. Weaver	CIN:
Program WBS Designator: Liquid Effluent WBS 1.2.2.1.2	Due Date: 04-30-95 05-01-95 <i>219</i>
Control Number: LEP-95-042	Rev: 0

MILESTONE TYPE: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> CONTRACTOR	DIVISION: <input type="checkbox"/> State <input type="checkbox"/> Federal <input checked="" type="checkbox"/> DOE <input type="checkbox"/> RCRA <input type="checkbox"/> TPA Number _____	DELIVERABLE: <input type="checkbox"/> Report <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Drawings <input type="checkbox"/> Other (specify)	ADDRESS TO: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> Other (specify)
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Milestone Description:
Complete Readiness Assessment activity for the 200 Area TEDF. Declare readiness in a letter to DOE-RL.

Description of what constitutes completion of this milestone:
Letter sent to DOE-RL with documentation of readiness assessment activity completion for the pipeline/disposal site (SALADS). This readiness does not include hook-up of each generator to the pipeline. Generator hook-ups will be made after this date.

Cost Account Manager B.F. Weaver <i>B.F. Weaver</i> 8-30-94	Program/Project Manager A. J. DiLiberto <i>A. J. DiLiberto</i> 8-30-94
Program Element Manager W.C. Alaconis <i>W.C. Alaconis</i> 8/30/94	DOE Monitor A. V. Beard <i>A. V. Beard</i> 9-21-94

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Initiate Definitive Design for Phase II Stream BAT/AKART Project W-252 (ADS 2300-1)	Date: 08-31-94
Assigned To: P.K. Sato	CIN:
Program WBS Designator: Liquid Effluent WBS 1.2.2.1.5/1A2502	Due Date: 01-30-95
Control Number: LEP-95-028	Rev: 0

MILESTONE TYPE: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> CONTRACTOR	DIVISION: <input type="checkbox"/> State <input type="checkbox"/> Federal <input type="checkbox"/> DOE <input type="checkbox"/> RCRA <input checked="" type="checkbox"/> TPA Number <u>M-17-00B</u>	DELIVERABLE: <input type="checkbox"/> Report <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Drawings <input type="checkbox"/> Other (specify)	ADDRESS TO: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> Other (specify)
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Milestone Description:

Initiate Definitive Design by issuing Delivery Order to the Architect/Engineer

Description of what constitutes completion of this milestone:

Letter forwarded to DOE-RL with Delivery Order attached.

Cost Account Manager C.E. Hatch <i>C.E. Hatch</i> 8/31/94	Date 8/31/94	Program/Project Manager A. J. DiLiberto <i>A. J. DiLiberto</i> 8/31/94	Date 8/31/94
Program Element Manager W.C. Alaconis <i>W.C. Alaconis</i> 8/31/94	Date 8/31/94	DOE Monitor A. V. Beard <i>A. V. Beard</i> 8-21-94	Date 8-21-94

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Initiate ADP Plan Preparation (Project W-252, Phase II Streams)	Date: 08-31-94
Assigned To: C.E. Hatch	CIN: LET-94-041
Program WBS Designator: Liquid Effluent WBS 1.2.2.1	Due Date: 12-01-94
Control Number: LEP-94-032	Rev: 1

MILESTONE TYPE: <input type="checkbox"/> DOE-HQ <input type="checkbox"/> DOE-RL <input checked="" type="checkbox"/> CONTRACTOR	DIVISION: <input type="checkbox"/> State <input type="checkbox"/> Federal <input type="checkbox"/> DOE <input type="checkbox"/> RCRA <input checked="" type="checkbox"/> TPA Number <u>M-17-00A</u>	DELIVERABLE: <input type="checkbox"/> Report <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Drawings <input type="checkbox"/> Other (specify)	ADDRESS TO: <input type="checkbox"/> DOE-HQ <input type="checkbox"/> DOE-RL <input checked="" type="checkbox"/> Other (specify) Program Office
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Milestone Description:

Begin collecting data, organizing files, and generating an outline for the Automated Data Processing Plan.

Milestone moved from FY 1994 FYWP. Completion date incorrectly stated in plan.

Description of what constitutes completion of this milestone:

Prepare a letter from WHC Projects to the Liquid Effluent Program Office indicating the work has begun.

Cost Account Manager <i>C.E. Hatch</i> C.E. Hatch	Date 8/31/94	Program/Project Manager <i>A. J. DiLiberto</i> A. J. DiLiberto	Date 8/31/94
Program Element Manager <i>W.C. Alaconis</i> W.C. Alaconis	Date 8/31/94	DOE Monitor <i>A. V. Beard</i> A. V. Beard	Date 9-21-94

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Complete Phase II Stream BAT/AKART Implementation Project 216 Permit Revision (ADS 2300-1)		Date: 08-31-94	
Assigned To: C.E. Hatch		CIN:	
Program WBS Designator: Liquid Effluent WBS 1.2.2.1.5/1A2502		Due Date: 01-30-97	
Control Number: LEP-97-001		Rev: 0	
MILESTONE TYPE: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> CONTRACTOR	DIVISION: <input type="checkbox"/> State <input type="checkbox"/> Federal <input type="checkbox"/> DOE <input type="checkbox"/> RCRA <input checked="" type="checkbox"/> TPA Number <u>M-17-00B</u>	DELIVERABLE: <input type="checkbox"/> Report <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Drawings <input type="checkbox"/> Other (specify)	ADDRESS TO: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> Other (specify)
Milestone Description: Revise the 200 Area TEDF 216 Permit to include Phase II Streams which will be added to the 200 Area TEDF pipeline/disposal site.			
Description of what constitutes completion of this milestone: Letter sent to DOE-RL with revised 216 Permit attached for forwarding to Ecology.			
Cost Account Manager C.E. Hatch <i>C.E. Hatch</i> 8/31/94		Program/Project Manager A. J. DiLiberto <i>A. J. DiLiberto</i> 8/31/94	
Program Element Manager W.C. Alaconis <i>W.C. Alaconis</i> 8/31/94		DOE Monitor A. V. Beard <i>A. V. Beard</i> 9-21-94	

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete Construction of Phase II Stream BAT/AKART Implementation Project W-252 (ADS 2300-1)		Date: 08-31-94	
Assigned To: P.K. Sato		CIN:	
Program WBS Designator: Liquid Effluent WBS 1.2.2.1.5/1A2502		Due Date: 05-30-97	
Control Number: LEP-97-002		Rev: 0	
MILESTONE TYPE: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> CONTRACTOR	DIVISION: <input type="checkbox"/> State <input type="checkbox"/> Federal <input type="checkbox"/> DOE <input type="checkbox"/> RCRA <input checked="" type="checkbox"/> TPA Number <u>M-17-00B</u>	DELIVERABLE: <input type="checkbox"/> Report <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Drawings <input type="checkbox"/> Other (specify)	ADDRESS TO: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> Other (specify)
Milestone Description: Operational Acceptance of Construction Section 1 and 2 signed off.			
Description of what constitutes completion of this milestone: Operations organization has beneficial occupancy so OTP can proceed. Letter sent to DOE-RL with documentation of OAC Sections 1 and 2 signed off.			
Cost Account Manager	Date	Program/Project Manager	Date
C.E. Hatch	<i>C.E. Hatch</i> 8/31/94	A. J. DiLiberto	<i>A.J. DiLiberto</i> 8/31/94
Program Element Manager	Date	DOE Monitor	Date
W.C. Alaconis	<i>W.C. Alaconis</i> 8/31/94	A. V. Beard	<i>A.V. Beard</i> 9-21-94

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Complete Phase II Stream Operational Readiness Evaluation (ADS 2300-1)		Date: 08-31-94	
Assigned To: C.E. Hatch		CIN:	
Program WBS Designator: Liquid Effluent WBS 1.2.2.1.5/1A2502		Due Date: 09-30-97	
Control Number: LEP-98-001		Rev: 0	
MILESTONE TYPE: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> CONTRACTOR	DIVISION: <input type="checkbox"/> State <input type="checkbox"/> Federal <input type="checkbox"/> DOE <input type="checkbox"/> RCRA <input checked="" type="checkbox"/> TPA Number <u>M-17-00B</u>	DELIVERABLE: <input type="checkbox"/> Report <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Drawings <input type="checkbox"/> Other (specify)	ADDRESS TO: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> Other (specify)
Milestone Description: Complete WHC readiness documentation and submit to DOE-RL for start up approval.			
Description of what constitutes completion of this milestone: Letter sent to DOE-RL with documentation stating WHC ready to initiate operations.			
Cost Account Manager C.E. Hatch <i>C.E. Hatch</i> 8/31/94		Program/Project Manager A. J. DiLiberto <i>A. J. DiLiberto</i> 8/31/94	
Program Element Manager W.C. Alaconis <i>W.C. Alaconis</i> 8/31/94		DOE Monitor A. V. Beard <i>A. V. Beard</i> 9-21-94	

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Implement BAT/AKART For All Phase II Liquid Effluent Streams (ADS 2300-1)		Date: 08-31-94	
Assigned To: C.E. Hatch		CIN:	
Program WBS Designator: Liquid Effluent WBS 1.2.2.1.5/1A2502		Due Date: 10-31-97	
Control Number: LEP-98-003		Rev: 0	
MILESTONE TYPE: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> CONTRACTOR	DIVISION: <input type="checkbox"/> State <input type="checkbox"/> Federal <input type="checkbox"/> DOE <input type="checkbox"/> RCRA <input checked="" type="checkbox"/> TPA Number <u>M-17-00B</u>	DELIVERABLE: <input type="checkbox"/> Report <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Drawings <input type="checkbox"/> Other (specify)	ADDRESS TO: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> Other (specify)
Milestone Description: Completion of BAT/AKART for Phase II streams in each facility.			
Description of what constitutes completion of this milestone: Letter sent to DOE-RL with documentation of readiness of each facility to tie into the 200 Area TEDF.			
Cost Account Manager: C.E. Hatch	Date: 8/31/94	Program/Project Manager: A. J. DiLiberto	Date: 8/31/94
Program Element Manager: W.C. Alaconis	Date: 8/31/94	DOE Monitor: A. V. Beard	Date: 9.21.94

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Complete Implementation of BAT/AKART for All Phase II Streams (ADS 2300-1) (M-17-00B)		Date: 08-31-94	
Assigned To: C.E. Hatch		CIN:	
Program WBS Designator: Liquid Effluent WBS 1.2.2.1.5/1A2502		Due Date: 10-30-97	
Control Number: LEP-98-002		Rev: 0	
MILESTONE TYPE: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> CONTRACTOR	DIVISION: <input type="checkbox"/> State <input type="checkbox"/> Federal <input type="checkbox"/> DOE <input type="checkbox"/> RCRA <input checked="" type="checkbox"/> TPA Number <u>M-17-00B</u>	DELIVERABLE: <input type="checkbox"/> Report <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Drawings <input type="checkbox"/> Other (specify)	ADDRESS TO: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> Other (specify)
Milestone Description: Initiate implementation of BAT/AKART systems for the 200 Area Phase II Streams			
Description of what constitutes completion of this milestone: Cease discharge of these waste streams to B Pond and initiate operation of BAT/AKART systems. Letter sent to DOE-RL declaring start up. (Completion requires DOE-RL approval to initiate operations)			
Cost Account Manager C.E. Hatch <i>C.E. Hatch</i> 8/31/94		Program/Project Manager A. J. DiLiberto <i>A.J. DiLiberto</i> 8/31/94	
Program Element Manager W.C. Alaconis <i>W.C. Alaconis</i> 8/31/94		DOE Monitor A. V. Beard <i>A.V. Beard</i> 9-21-94	

**LIQUID EFFLUENT
WBS 1.2.2.1**

FY 1995 MYPP

2.H Cost Baseline Summary (\$ in 000s)																
<i>RL WBS</i>	<i>WBS TITLE</i>	<i>FUND TYPE</i>	<i>1995 SMS</i>		<i>1996 Target</i>		<i>1997 Target</i>		<i>1998 Target</i>		<i>1999 Target</i>		<i>2000 Target</i>		<i>2001 Target</i>	
			<i>\$000</i>	<i>FTEs</i>	<i>\$000</i>	<i>FTEs</i>	<i>\$000</i>	<i>FTEs</i>	<i>\$000</i>	<i>FTEs</i>	<i>\$000</i>	<i>FTEs</i>	<i>\$000</i>	<i>FTEs</i>	<i>\$000</i>	<i>FTEs</i>
ADS 2300-0 LIQUID EFFLUENTS																
1.2.2.1.1	Program Office		2,033	16	1,501	14	1,554	14	1,601	14	1,648	14	1,699	14	1,699	14
1.2.2.1.1.0001	Program Management	OP	1,454	13.9	1,501	13.8	1,554	13.8	1,601	13.8	1,648	13.8	1,699	13.8	1,699	13.8
1.2.2.1.1.0003	LERF Operations	OP	579	1.8	0	0	0	0	0	0	0	0	0	0	0	0
	Sub Total	OP	2,033	16	1,501	14	1,554	14	1,601	14	1,648	14	1,699	14	1,699	14
1.2.2.1.2	200 Area ETF Operations		21,350	179	24,404	183	24,639	183	25,539	183	26,507	183	27,543	183	27,543	183
1.2.2.1.2.0001	200 Area LE Facilities Opms	OP	4,457	49.7	4,531	49.0	4,667	49.0	4,807	49.0	4,952	49.0	5,100	49.0	5,100	49.0
1.2.2.1.2.0002	200 Area LE Facilities Maintenance	OP	2,672	24.3	2,709	25.1	2,790	25.1	2,874	25.1	2,960	25.1	3,049	25.1	3,049	25.1
1.2.2.1.2.0003	200 Area LE Facilities Opms Supt	OP	6,525	47.2	8,435	42.5	8,816	42.5	9,244	42.5	9,725	42.5	10,261	42.5	10,261	42.5
1.2.2.1.2.0004	200 Area LE Facilities Engineering	OP	1,967	15.4	2,143	14.8	1,637	14.8	1,686	14.8	1,737	14.8	1,789	14.8	1,789	14.8
1.2.2.1.2.0005	200 A Regulatory Compliance/Permit	OP	5,579	42.4	6,436	52.0	6,629	52.0	6,828	52.0	7,033	52.0	7,244	52.0	7,244	52.0
1.2.2.1.2	200 Area ETF Capital Equipment	CE	150		150		100		100		100		100		100	
	Sub Total	OP	21,200	179	24,254	183	24,539	183	25,439	183	26,407	183	27,443	183	27,443	183
	Sub Total	CE	150	0	150	0	100	0	100	0	100	0	100	0	100	0
1.2.2.1.3	300 Area TEDF Operations		12,474	89	11,443	76	12,062	76	12,736	76	13,476	76	13,877	76	13,877	76
1.2.2.1.3.0001	300 Area LE Facilities Operations	OP	6,881	49.2	6,695	43.9	7,258	43.9	7,823	43.9	8,450	43.9	8,735	43.9	8,735	43.9
1.2.2.1.3.0002	300 Area LE Facilities Maintenance	OP	3,051	30.2	2,188	23.0	2,250	23.0	2,314	23.0	2,380	23.0	2,447	23.0	2,447	23.0
1.2.2.1.3.0004	300 Area LE Facilities Engineering	OP	2,295	8.4	2,300	8.0	2,341	8.0	2,383	8.0	2,426	8.0	2,471	8.0	2,471	8.0
1.2.2.1.3.0006	300 A Regulatory Compliance/Permit	OP	97	1.0	110	1.0	113	1.0	116	1.0	120	1.0	124	1.0	124	1.0

2.H-1

MHC-SP-1097

**LIQUID EFFLUENT
WBS 1.2.2.1**

FY 1995 MYPP

2.H Cost Baseline Summary (\$ in 000s)																
RL WBS	WBS TITLE	FUND TYPE	1995 SMS		1996 Target		1997 Target		1998 Target		1999 Target		2000 Target		2001 Target	
			\$000	FTEs	\$000	FTEs	\$000	FTEs	\$000	FTEs	\$000	FTEs	\$000	FTEs	\$000	FTEs
1.2.2.1.3	300 Area Capital Equipment	CE	150		150		100		100		100		100		100	
	Sub Total	OP	12,324	89	11,293	76	11,962	76	12,636	76	13,376	76	13,777	76	13,777	76
	Sub Total	CE	150	0	150	0	100	0	100	0	100	0	100	0	100	0
1.2.2.1.4	Liquid Effluent Advanced Engineering		4,749	25	5,603	14	10,382	22	8,172	21	5,858	20	1,938	16	1,938	16
1.2.2.1.4.0002	200 Area LE Advanced Engineering	OP	2,076	12.1	877	7.7	2,599	20.4	2,341	19.7	2,298	18.8	1,947	15.4	1,947	15.4
		GPP			4,000		4,000		4,000		3,143					
1.2.2.1.4.0003	300 Area LE Advanced Engineering	OP	794	2.8	127	1.4	136	1.2	195	.2	253	0	-178	0	-178	
		GPP					3,500		1,485							
1.2.2.1.4.0004	Miscellaneous Streams	OP	1,032	3.9	464	4.3										
1.2.2.1.4.0005	Tritium Waste Technology Evaluation	OP	135	1.0	135	.8	147	.8	151	.8	164	.8	169	.8	169	.8
1.2.2.1.4.0006	Interim Compliance	OP	712	5.0												
	Sub Total	OP	4,749	25	1,603	14	2,882	22	2,687	21	2,715	20	1,938	16	1,938	16
	Sub Total	GPP	0	0	4,000	0	7,500	0	5,485	0	3,143	0	0	0	0	0
ADS 2300 SUB TOTALS		OP	40,306	309	38,651	287	40,937	295	42,363	294	44,146	293	44,857	289	44,857	289
		CE	300	0	300	0	200	0	200	0	200	0	200	0	200	0
		GPP	0	0	4,000	0	7,500	0	5,485	0	3,143	0	0	0	0	0
TOTAL BUDGET ADS 2300-0			40,606	309	42,951	287	48,637	295	48,048	294	47,489	293	45,057	289	45,057	289
Productivity Commitment ADS 2300-0			-3,521		-4,246		-6,936		-11,668		-3,866		-3,360		-3,360	

2.H-2

MHC-SP-1097

**LIQUID EFFLUENT
WBS 1.2.2.1**

FY 1995 MYPP

2.H Cost Baseline Summary (\$ in 000s)																
<i>RL WBS</i>	<i>WBS TITLE</i>	<i>FUND TYPE</i>	<i>1995 SMS</i>		<i>1996 Target</i>		<i>1997 Target</i>		<i>1998 Target</i>		<i>1999 Target</i>		<i>2000 Target</i>		<i>2001 Target</i>	
			<i>\$000</i>	<i>FTEs</i>	<i>\$000</i>	<i>FTEs</i>	<i>\$000</i>	<i>FTEs</i>	<i>\$000</i>	<i>FTEs</i>	<i>\$000</i>	<i>FTEs</i>	<i>\$000</i>	<i>FTEs</i>	<i>\$000</i>	<i>FTEs</i>
TOTAL FUNDING ADS 2300-0			37,085	309	38,705	287	41,701	285	36,380	294	43,623	293	41,697	289	41,697	289
ADS 2300-1 PHASE II TREATMENT/DISPOSAL																
1.2.2.1.5	Phase II Effluent Treatment/Disposal		7,833	4	21,102	7	4,309	12	91	8	0	0	0	0	0	0
1.2.2.1.5.0001	BAT Implementation Phase II Streams	OP	733	4.1	742	6.9	1,269	11.5	91	8.0						
1.2.2.1.5.0002	Project W-252	LI	7,100		20,360		3,040									
Sub Total		OP	733	4	742	7	1,269	12	91	8	0	0	0	0	0	0
Sub Total		LI	7,100	0	20,360	0	3,040	0	0	0	0	0	0	0	0	0
TOTAL BUDGET ADS 2300-1			7,833	4	21,102	7	4,309	12	91	8	0	0	0	0	0	0
Productivity Commitment ADS 2300-1			-500		-600											
TOTAL FUNDING ADS 2300-1			7,333	4	20,502	7	4,309	12	91	8	0	0	0	0	0	0
ADS 2330-0 LIQUID EFFLUENT FUTURE PROJECTS																
1.2.2.1.9	340 Facility Secondary Containment		372	2	112	1	1,652	0	14,200	0	0	0	0	0	0	0
1.2.2.1.9.0001	340 Facility Secondary Containment	OP	372	1.5	112	.9	52	.4								
1.2.2.1.9.0002	Project W-302	LI	0	0			1,600		14,200							
Sub Total		OP	372	2	112	1	52	0	0	0	0	0	0	0	0	0
Sub Total		LI	0	0	0	0	1,600	0	14,200	0	0	0	0	0	0	0
1.2.2.1.6	Misc Streams BAT Implementation		0	0	356	1	581	3	869	6	38	0	601	2	1,817	2
1.2.2.1.6.0001	Misc Stream BAT Implementation	OP			356	1.0	581	3.2	869	5.8	38	.1	601	2.2	317	2.2

2.H-3

MHC-SP-1097

**LIQUID EFFLUENT
WBS 1.2.2.1**

FY 1995 MYPP

2.H Cost Baseline Summary (\$ in 000s)																
RL WBS	WBS TITLE	FUND TYPE	1995 SMS		1996 Target		1997 Target		1998 Target		1999 Target		2000 Target		2001 Target	
			\$000	FTEs	\$000	FTEs	\$000	FTEs	\$000	FTEs	\$000	FTEs	\$000	FTEs	\$000	FTEs
1.2.2.1.6.0002	Misc Stream BAT Implementation	LI													1,500	
	Sub Total	OP	0	0	356	1	581	3	869	6	38	0	601	2	317	2
	Sub Total	LI	0	0	0	0	0	0	0	0	0	0	0	0	1,500	0
TOTAL BUDGET/FUNDING ADS 2330-0			372	2	468	2	2,233	3	15,069	6	38	0	601	2	1,817	2
LIQUID EFFLUENT PROGRAM SUB TOTALS			41,411	315	39,861	296	42,839	310	43,323	308	44,184	293	45,458	291	45,174	291
		CE	300	0	300	0	200	0	200	0	200	0	200	0	200	0
		GPP	0	0	4,000	0	7,500	0	5,485	0	3,143	0	0	0	0	0
		LI	7,100	0	20,360	0	4,640	0	14,200	0	0	0	0	0	1,500	0
LIQUID EFFLUENT PROGRAM GRAND TOTAL BUDGET			48,811	315	64,521	296	55,179	310	63,208	308	47,527	293	45,658	291	46,874	291
Productivity Commitment			-4,021	0	-4,846	0	-6,936	0	-11,668	0	-3,866	0	-3,360	0	-3,360	0
LIQUID EFFLUENT PROGRAM GRAND TOTAL FUNDING			44,790	315	59,675	296	48,243	310	51,540	308	43,661	293	42,298	291	43,514	291

2.H-4

MHC-SP-1097

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1995 MYPP

2.I. Basis of Estimate				
Activity/Cost Acct		FY 1995	FY 1996	FY 1997
ADS 2300-0 Liquid Effluents	Budget \$	40,606	42,951	48,638
	Funding \$	37,085	38,705	41,702
	FTE	309	287	295
ADS 2300-1 Phase II Treatment/ Disposal	Budget \$	7,833	21,102	4,309
	Funding \$	7,333	20,502	4,309
	FTE	4	7	12
ADS 2330-0 Liquid Effluent Future Projects	Budget \$	372	483	717
	Funding \$	372	483	717
	FTE	2	2	4

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

2.I-1

MHC-SP-1097

FY 1995 MYPP

LIQUID EFFLUENT
WBS 1.2.2.1

2.J. Waste Type Projections - FY 1995

Waste Type	Waste Generated (waste unit, e.g., gallons)	Waste Received (waste unit, and name of program received from)	Waste Transferred (waste unit and name of program transferred from)	Waste Stored (waste unit)
HLW				
LLW (SOLID)	<u>340 Facility:</u> 650 cu ft <u>300 Area TEF:</u> 13,000 cu ft	-0- -0-	650 cu ft - From 340 Facility to CWC 13,000 cu ft from 300 A TEF to CWC	-0- -0-
LLW (LIQUID)	<u>340 Facility:</u> -0-	15,500 gals from 300 A Labs	15,500 gals - From 340 Facility to DSTs	-0-
LLMW (SOLID)	<u>340 Facility:</u> 37.5 cu ft <u>200 Area ETF:</u> 110,000 lbs	-0- -0-	37.5 cu ft - From 340 Facility to CWC 110,000 lbs - From ETF to Solid Waste Program	-0-
LLMW (LIQUID)	<u>340 Facility:</u> 2,000 gals <u>200 Area ETF:</u> -0-	15,000 gals from 300 A Labs 7,000,000 gals from 242-A/LERF	17,000 gals - From 340 Facility to DSTs	-0-
LLW (GTC3)				
TRU				
TRUM	<u>340 Facility:</u> 7.5 cu ft	-0-	7.5 cu ft - From 340 Facility to CWC	-0-
HAZARDOUS				
SANITARY (LANDFILL)				
SANITARY (LANDFILL-ASBESTOS)				

2.J-1

MHC-SP-1097

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1995 MYPP

FY 1995

PLANS FOR WASTE STORAGE:

340 Facility

The 340 Facility handles (temporarily stores) LLMW from laboratory activities in the 300 Area. The waste is stored in a below-grade tank system, for less than 90 days, then transferred via railcar to Double Shell Tanks (DST) in the 200 Areas. Solid waste is generated during procedural and maintenance activities associated with operations. This waste is accumulated, then shipped to the Central Waste Complex (CWC).

300 Area TEDF

Waste is accumulated until a truckload can be shipped to the burial grounds

200 Area ETF

Waste is not permanently stored at the ETF. The ETF is permitted to store the dry waste product prior to shipment to the Solid Waste Program. Liquid storage will only be incidental to the process.

PLANS FOR INTERPROGRAM WASTE TRANSFER AND/OR DISPOSITION:

340 Facility

Utilizing a 20,000 gallon railcar from T-Plant, LLMW is transferred to DSTs. Solid waste is accumulated and temporarily stored at the 340 Facility. The CWC is the final destination for all solid waste generated.

300 Area TEDF

Accumulate waste is shipped to the burial grounds.

200 Area ETF

Dry waste product will be transferred to the Solid Waste Program.

2.3-2

WMC-SP-1097

LIQUID EFFLUENT

WBS 1.2.2.1

FY 1995 MYPP

SUMMARY WASTE TYPE ISSUES:

340 Facility

During maintenance activities on the RLWS, the possibility exists to generate TRU mixed waste.

15,000 gallons of LLW (liquid) is to be transferred from the 309 Building PRTR Vault. This may occur in FY 1994. Lysimeter waste (LLW-liquid) is currently accepted at approximately 500 gals per year.

300 Area TEDF

Wastes consist of filter press sludge and miscellaneous solid waste.

FY 1995 MYPP

LIQUID EFFLUENT
WBS 1.2.2.1

2.J. Waste Type Projections - FY 1996				
Waste Type	Waste Generated (waste unit, e.g., gallons)	Waste Received (waste unit, and name of program received from)	Waste Transferred (waste unit and name of program transferred from)	Waste Stored (waste unit)
HLW				
LLW (SOLID)	340 Facility: 650 cu ft	-0-	650 cu ft - From 340 Facility to CWC	-0-
	300 Area TEDF: 13,000 cu ft	-0-	13,000 cu ft - From TEDF to CWC	-0-
LLW (LIQUID)	340 Facility: -0-	500 gals from 300 A Labs	500 gals - From 340 Facility to DSTs	-0-
LLMW (SOLID)	340 Facility: 37.5 cu ft	-0-	37.5 cu ft - From 340 Facility to CWC	-0-
	200 Area ETF: 175,000 lbs	-0-	175,000 lbs - From ETF to Solid Waste Program	-0-
LLMW (LIQUID)	340 Facility: 2,000 gals	15,000 gals from 300 A Labs	17,000 gals - From 340 Facility to DSTs	-0-
	200 Area ETF: -0-	1,000,000 gals from 242-A/TWRS	-0-	-0-
LLW (GTC3)				
TRU				
TRUM	340 Facility: 7.5 cu ft	-0-	7.5 cu ft - From 340 Facility to CWC	-0-
HAZARDOUS				
SANITARY (LANDFILL)				
SANITARY (LANDFILL-ASBESTOS)				

2.J-4

WMC-SP-1097

LIQUID EFFLUENT

WBS 1.2.2.1

FY 1995 MYPP

FY 1996

PLANS FOR WASTE STORAGE:

340 Facility

The 340 Facility handles (temporarily stores) LLMW from laboratory activities in the 300 Area. The waste is stored in a below-grade tank system, for less than 90 days, then transferred via railcar to Double Shell Tanks (DST) in the 200 Areas. Solid waste is generated during procedural and maintenance activities associated with operations. This waste is accumulated, then shipped to the Central Waste Complex (CWC).

300 Area TEDF

Waste is accumulated until a truckload can be shipped to the burial grounds.

200 Area ETF

Waste is not permanently stored at the ETF. The ETF is permitted to store the dry waste product prior to shipment to the Solid Waste Program. Liquid storage will only be incidental to the process.

PLANS FOR INTERPROGRAM WASTE TRANSFER AND/OR DISPOSITION:

340 Facility

Utilizing a 20,000 gallon railcar from T-Plant, LLMW is transferred to DSTs. Solid waste is accumulated and temporarily stored at the 340 Facility. The CWC is the final destination for all solid waste generated.

300 Area TEDF

Waste is shipped to the burial grounds.

200 Area ETF

Dry waste product will be transferred to the Solid Waste Program.

2.3-5

MHC-SP-1097

LIQUID EFFLUENT

WBS 1.2.2.1

FY 1995 MYPP

SUMMARY WASTE TYPE ISSUES:

340 Facility

During maintenance activities on the RLWS, the possibility exists to generate TRU mixed waste.

15,000 gallons of LLW (liquid) is to be transferred from the 309 Building PRTR Vault. This may occur in FY 1994. Lysimeter waste (LLW-liquid) is currently accepted at approximately 500 gals per year.

300 Area TEDF

Wastes consist of filter press sludge and miscellaneous solid waste.

2.J-6

MHC-SP-1097

FY 1995 MYPP

LIQUID EFFLUENT
WBS 1.2.2.1

2.J. Waste Type Projections - FY 1997

Waste Type	Waste Generated (waste unit, e.g., gallons)	Waste Received (waste unit, and name of program received from)	Waste Transferred (waste unit and name of program transferred from)	Waste Stored (waste unit)
HLW				
LLW (SOLID)	<u>340 Facility:</u> 650 cu ft <u>300 Area TEDF:</u> 13,000 cu ft	-0- -0-	650 cu ft - From 340 Facility to CWC 13,000 cu ft - From TEDF to CWC	-0- -0-
LLW (LIQUID)	<u>340 Facility:</u> -0-	500 gals from 300 A Labs	500 gals - From 340 Facility to DSTs	-0-
LLMW (SOLID)	<u>340 Facility:</u> 37.5 cu ft <u>300 Area TEDF:</u> 300 cu ft <u>200 Area ETF:</u> 65,000 lbs	-0- -0- -0-	37.5 cu ft - From 340 Facility to CWC 300 cu ft - From TEDF to CWC 65,000 lbs - From ETF to Solid Waste Program	-0- -0- -0-
LLMW (LIQUID)	<u>340 Facility:</u> 2,000 gals <u>200 Area ETF:</u> -0-	15,000 gals from 300 A Labs 4,000,000 gals from 242-A	17,000 gals - From 340 Facility to DSTs -0-	-0- -0-
LLW (GTC3)				
TRU				
TRUM	<u>340 Facility:</u> 7.5 cu ft	-0-	7.5 cu ft - From 340 Facility to CWC	-0-
HAZARDOUS				
SANITARY (LANDFILL)				
SANITARY (LANDFILL-ASBESTOS)				

2.J-7

MHC-SP-1097

LIQUID EFFLUENT

WBS 1.2.2.1

FY 1995 MYPP

FY 1997

PLANS FOR WASTE STORAGE:

340 Facility

The 340 Facility handles (temporarily stores) LLMW from laboratory activities in the 300 Area. The waste is stored in a below-grade tank system, for less than 90 days, then transferred via railcar to Double Shell Tanks (DST) in the 200 Areas. Solid waste is generated during procedural and maintenance activities associated with operations. This waste is accumulated, then shipped to the Central Waste Complex (CWC).

300 Area TEDE

Accumulate at the facility and ship to the burial ground or CWC as appropriate.

200 Area ETF

Waste is not permanently stored at the ETF. The ETF is permitted to store the dry waste product prior to shipment to the Solid Waste Program. Liquid storage will only be incidental to the process.

PLANS FOR INTERPROGRAM WASTE TRANSFER AND/OR DISPOSITION:

340 Facility

Utilizing a 20,000 gallon railcar from T-Plant, LLMW is transferred to DSTs. Solid waste is accumulated and temporarily stored at the 340 Facility. The CWC is the final destination for all solid waste generated.

300 Area TEDE

LLW - Ship to burial ground
LLMW - Ship to CWC

200 Area ETF

Dry waste product will be transferred to the Solid Waste Program.

2-J-8

WMC-SP-1097

LIQUID EFFLUENT

WBS 1.2.2.1

FY 1995 MYPP

SUMMARY WASTE TYPE ISSUES:

340 Facility

During maintenance activities on the RLWS, the possibility exists to generate TRU mixed waste.

15,000 gallons of LLW (liquid) is to be transferred from the 309 Building PRTR Vault. This may occur in FY 1994. Lysimeter waste (LLW-liquid) is currently accepted at approximately 500 gals per year.

300 Area TEDE

LLW - Filter press sludge and miscellaneous solid waste.

LLMW - Ion exchange resin.

FY 1995 MYPP

LIQUID EFFLUENT
WBS 1.2.2.1

2.J. Waste Type Projections - FY 1998 - 2025				
Waste Type	Waste Generated (waste unit, e.g., gallons)	Waste Received (waste unit, and name of program received from)	Waste Transferred (waste unit and name of program transferred from)	Waste Stored (waste unit)
HLW				
LLW (SOLID)	<u>340 Facility:</u> 650 cu ft/yr <u>300 Area TEDF:</u> 13,000 cu ft/yr	-0- -0-	650 cu ft/yr - From 340 Facility to CWC 13,000 cu ft/yr - From TEDF to CWC	-0- -0-
LLW (LIQUID)	<u>340 Facility:</u> -0-	500 gals/yr from 300 A Labs	500 gals/yr - From 340 Facility to DSTs	-0-
LLMW (SOLID)	<u>340 Facility:</u> 6,000 cu ft/yr <u>300 Area TEDF:</u> 300 cu ft/every 2 yrs <u>200 Area ETF:</u> 80,000 lbs/yr	-0- -0- -0-	6,000 cu ft - From 340 Facility to CWC 300 cu ft/2 yrs - From TEDF to CWC 80,000 lbs/yr - From ETF to Solid Waste Program	-0- -0- -0-
LLMW (LIQUID)	<u>340 Facility:</u> 2,000 gals/yr <u>200 Area ETF:</u> -0-	15,000 gals/yr from 300 A Labs 5,000,000 gals/yr from 242-A	17,000 gals/yr - From 340 Facility to DSTs -0-	-0- -0-
LLW (GTC3)				
TRU				
TRUM	<u>340 Facility:</u> 7.5 cu ft	-0-	7.5 cu ft - From 340 Facility to CWC	-0-
HAZARDOUS				
SANITARY (LANDFILL)				
SANITARY (LANDFILL-ASBESTOS)				

2.J-10

MHC-SP-1097

LIQUID EFFLUENT

WBS 1.2.2.1

FY 1995 MYPP

FY 1998 - 2025

340 Facility

With Project W-302, the upgrade of the 340 Facility RLWS, the tank system may be removed. This would generate a large volume of mixed solid waste. Some of this waste may be categorized later as TRU - Mixed Waste.

2.J-11

MHC-SP-1097

FY 1995 MYPP

LIQUID EFFLUENTS

WBS Number 1.2.2.1

2.K. Planned Staffing (Full Time Equivalent)							
Job category	1995	1996	1997	1998	1999	2000	2001
MANAGERS							
First line	5.2	5.0	5.0	5.0	5.0	5.0	5.0
General/executive	22.5	22.3	24.1	22.2	21.4	21.6	21.6
Project/Program							
Other							
ENGINEERS							
General	55.8	49.9	57.2	50.7	51.0	49.5	49.5
Chemical	6.9	5.5	5.5	5.0	5.0	5.0	5.0
Civil							
Computer	1.8						
Electrical							
Environmental	8.3	8.3	4.7	4.2	4.1	4.1	4.1
Industrial							
Mechanical							
Nuclear							
Petroleum/Mining							
Plant	12.2	10.0	12.8	12.8	12.8	12.8	12.8
Quality Control	2.0	2.2	2.2	2.2	2.2	2.2	2.2
Safety	1.4	1.3	2.1	4.5	.8	.8	.8
Other	3.0	3.0	3.0	3.0	3.0	3.0	3.0
SCIENTISTS							
Chemists	19.0	19.0	19.0	19.0	19.0	19.0	19.0

2.K-1

WHC-SP-1097

LIQUID EFFLUENTS
WBS Number 1.2.2.1

FY 1995 MYPP

2.K. Planned Staffing (Full Time Equivalent)							
Job category	1995	1996	1997	1998	1999	2000	2001
Environmental	1.6						
Geologists	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Life							
Material							
Mathematicians							
Physicists							
Social							
Other	.4	.1	.1	.1	.1	.1	.1
DMIN/OTHER PROFESSIONALS							
General	15.8	9.8	9.8	9.8	9.8	9.8	9.8
Accountant/auditor	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Architect							
Buyers/procurement							
Communications							
Compliance inspectors							
Computer System Anal							
Cost Est/planner/sch	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Health Physics	1.0	4.0	4.0	4.0	4.0	4.0	4.0
Industrial Hygiene							
Lawyers							
Personnel/Labor Rela							
Physicians							
Physician Assis/Nurs							

2.K-2

WHC-SP-1097

LIQUID EFFLUENTS

WBS Number 1.2.2.1

FY 1995 MYPP

2.K. Planned Staffing (Full Time Equivalent)							
Job category	1995	1996	1997	1998	1999	2000	2001
Safeguard & Security							
Tech Writers & Edit							
Trainers	6.3	4.0	4.0	4.0	4.0	4.0	4.0
Other	13.1	10.1	10.1	10.1	10.1	10.1	10.1
GEN ADM/SECRETARY/CLERK							
Admin Assistants	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Office Clerks (Gen)							
Office Clerks (Special)							
Secretaries	4.1	4.0	4.0	4.0	4.0	4.0	4.0
Typist/Word Process							
Other	15.5	13.6	13.5	13.9	13.0	13.0	13.0
TECHNICIANS							
Computer Oper/Coder							
Drafters							
Engrs/Tech	4.3	2.0	5.4	3.6	3.4	3.4	3.4
Envir. Sci Technicians							
Health Phys. Technic.	10.2	7.0	7.0	7.0	7.0	7.0	7.0
Indus. Saf/Health Tech							
Instru/Control Tech							
Lab. Technicians	19.0	19.0	19.0	19.0	19.0	19.0	19.0
Media Technicians							
Survey/Map Tech							
Other	2.0	2.0	2.0	2.0	2.0	2.0	2.0

2.K-3

MHC-SP-1097

FY 1995 MYPP

LIQUID EFFLUENTS
WBS Number 1.2.2.1

2.K. Planned Staffing (Full Time Equivalent)							
Job category	1995	1996	1997	1998	1999	2000	2001
CRAFTS							
General	26.3	24.5	26.3	25.5	24.3	24.3	24.3
Carpenters							
Electricians							
HVAC							
Machinists							
Masons							
Millwrights							
Painters							
Plumbers/Pipefitters							
Struct/Metal Workers							
Vehic./Mob Equip Mech							
Welders							
Other							
OPERATORS							
Chemical System	20.2	19.0	19.0	19.0	19.0	19.0	19.0
Drillers							
Lt. Vehicle Drivers							
Material Moving Equip							
Nuclear Plant	35.5	36.0	36.0	36.0	36.0	36.0	36.0
Utilities Waste Proces							
Other	1.5	1.5	1.5	1.5	1.5	1.5	1.5
LABOR & GEN WORKERS							

2.K-4

MHC-SP-1097

LIQUID EFFLUENTS

WBS Number 1:2.2.1

FY 1995 MYPP

2.K. Planned Staffing (Full Time Equivalent)							
Job category	1995	1996	1997	1998	1999	2000	2001
Firefighters							
Food Service							
Hand/Help Lab Gen							
Hand/Help Lab Spec							
Janitors/Cleaners	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Laundry Workers							
Security Guards							
Other							

2.K-5

WHC-SP-1097

LIQUID EFFLUENT

WBS Number 1.2.2.1

FY 1995 MYPP

2.L. Building Blocks						
FY 1995 Building Blocks (\$000)						
ADS	Description	RL Pri	Fund Type	FY 1995	CUM FY 1995	Justification of Scope/Impact if not funded
2300-0	Program Management	B1	Exp	1,454	1,454	Provides the planning, budgeting, statusing, performance monitoring, customer interface, and program direction for the Liquid Effluent 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.
2310-1	HEC Project Expense Support	B1	Exp	1,400	2,854	Provides overall HEC project administration and closeout costs for Subprojects C-018H, C-031H, L-045H, W-007H, W-049H, and W-291H. <u>IMPACTS:</u> TPA M-17 and M-32-01B will be missed shutting down 242-A Evaporator, 300 Area labs, PFP and B-Plant facilities.
2300-0	300 Area Facilities Operations (300 Area TEDF Project L-045H and 340/307 Facility)	A2	Exp	13,118	15,972	Provides readiness reviews, startup testing, systems engineering and continued operations for 300 Area TEDF. Supports 340/307 Facility full operations with safety and training upgrades, conduct of operations implementation, safety documentation modification, and tank integrity assessment completed. Supports Sludge Drier waste minimization and alternate feed evaluations and upgrades. <u>IMPACTS:</u> TPA M-17 milestone would be missed resulting in either 300 Area facilities required shutdown or continued discharge of unpermitted liquid effluents to soil column. Shutdown would affect TPA M-44 milestones. Non-operation of the 340/307 Facility would shutdown 300 Area labs and TPA M-44 milestones for core sampling would be missed.
			CE	150	16,122	
2300-0	200 Area Systems Engineering - Tritium Study	B1	Exp	136	16,258	Evaluates tritium removal technology and prepares yearly status report. <u>IMPACTS:</u> TPA M-26-05 milestone would be missed.

2.L-1

MHC-SP-1097

LIQUID EFFLUENT

WBS Number 1.2.2.1

FY 1995 MYPP

2.L. Building Blocks						
FY 1995 Building Blocks (\$000)						
ADS	Description	RL Pri	Fund Type	FY 1995	CUM FY 1995	Justification of Scope/Impact if not funded
2300-0	Interim Compliance	B1	Exp	712	16,970	Supports Groundwater Impact Assessments to allow interim discharges to T ditches and B Pond to continue. Maintains LEHIS system required by TPA Milestone M-35 as a database available to regulators. <u>IMPACTS:</u> TPA M-17 and M-35 milestones missed and possible shutdown of T-Plant, Tank Farms and B-Plant streams discharging to B Pond.
2300-0	200 Area Effluent Treatment Facilities Operations Projects: C-018H, W-105, W-049H, W-291H	A2	Exp	23,085	40,055	Provides for LERF, ETF, and TEDF Operations. Completes the readiness review activities for ETF (Project C018), TEDF (Project W049), and BAT/AKART Implementation (Project W291). Supports Advanced Engineering facility support, micro-pilot plant process verification, control system improvements, LERF biological study, and process upgrade projects support. <u>IMPACTS:</u> TPA M-17 and M-26 milestones are missed and 242-A Evaporator is shutdown which impacts numerous TWRS milestones.
			CE	150	40,205	
2330-0	340 Facility Secondary Containment/Leak Detection (Project W-302)	B1	Exp	372	40,577	Provides for engineering to support FY97 Line Item for replacement of the 300 Area Radiation Process Sewer and 340 Facility. <u>IMPACTS:</u> Non-compliance with WAC/RCRA for tank systems secondary containment and leak detection requirements. Possible fines or shutdown causing closure of 300 Area Facilities including labs and delaying TWRS TPA milestones associated with core sampling and safety investigations.
2300-1	Phase II BAT/AKART Implementation (Project W-252)	B1	Exp	733	41,310	Continues project support to Phase II Stream BAT/AKART Implementation for Tank Farm, B-Plant, and 284-E Powerplant streams to meet Oct. 1997 milestone. <u>IMPACTS:</u> TPA M-17-00B milestone would be missed.
			LI	7,100	48,410	

2.L-2

MHC-SP-1097

LIQUID EFFLUENT
WBS Number 1.2.2.1

FY 1995 MYPP

2.L. Building Blocks						
FY 1995 Building Blocks (\$000)						
ADS	Description	RL Pri	Fund Type	FY 1995	CUM FY 1995	Justification of Scope/Impact if not funded
2300-0	Miscellaneous Streams	B1	Exp	1,032	49,442	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.
2300-0	200 Area Systems Engineering New Feed Definition	B1	Exp	770	50,212	Supports investigation and acceptance of potential new feeds into 200 Area ETF or TEDF for treatment and disposal. The ETF was designed to treat a wide range of dilute waste water streams. To allow the treatment of streams other than the 242-A process condensate, several complex regulatory and treatment train processing issues must be satisfied. Tasks include: Enhance ETF Complex Flexibility; Waste Water Feed Logic; ETF Pump and Treat Study. <u>IMPACTS</u> : Potential for TPA M-13, "Groundwater Pump & Treat", and M-34, "K-Basin cleanout" milestones to be delayed if logic defines ETF as appropriate treatment facility.
2300-0 2310-1 2300-1	Productivity Commitment (2300-0 @ 3,521) (2300-1 @ 500) (2310-1 @ 104)			-4,125	46,087	TARGET BUDGET Major Impacts at Target Level: (1) None - All TPA/Consent Order Milestones are fulfilled. (2) Support to cost reduction goals defined in TPA Cost and Management Efficiency Initiative will be minimized.
2300-0	200 Area Advanced Engineering New Feed Definition	D2	Exp	496	50,708	Contingent funding for additional treatability testing in support of the 200 Area ETF operation enhancements. <u>IMPACTS</u> : None.

2.L-3

MHC-SP-1097

FY 1995 MYPP

LIQUID EFFLUENT
WBS Number 1.2.2.1

2.L. Building Blocks						
FY 1995 Building Blocks (\$000)						
ADS	Description	RL Pri	Fund Type	FY 1995	CUM FY 1995	Justification of Scope/Impact if not funded
2300-0	300 Area TEDF Office Facility	D2	Exp	335	51,043	Provides for upfront engineering/procurement for office space in the 300 Area TEDF. No office space was provided in the treatment building. Current staff will be housed in leased trailers. <u>IMPACTS:</u> After 2 years, leased trailers will be removed and engineering, maintenance and support staff will require alternate housing. Delay in support will hinder operations, increasing plant downtime, and not support Cost and Management Efficiency Initiative in TPA.
					51,043	TOTAL REQUIREMENTS
			Decrment	Target	Requird	
TOTAL OPERATING EXPENSE				42,812	43,643	
Productivity Commitment				-3,625	-3,625	
TOTAL CAPITAL				7,400	7,400	
Productivity Commitment				-500	-500	
GRAND TOTAL			None	46,087	46,918	

2.L-4

MHC-SP-1097

LIQUID EFFLUENT
WBS Number 1.2.2.1

FY 1995 MYPP

2.L. Building Blocks						
FY 1996 Building Blocks (\$000)						
ADS	Description	RL Pri	Fund Type	FY 1996	CUM FY 1996	Justification of Scope/Impact if not funded
2300-0	Program Management	B1	Exp	1,501	1,501	Provides the planning, budgeting, statusting, performance monitoring, customer interface, and program direction for the Liquid Effluent Programs. <u>IMPACT</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 Liquid Effluent Facilities Operations	A2	Exp	11,419	12,920	Provides compliant operations of 300 Area TEDF, 340 Facility and 307 Basins. Includes System Engineering study on secondary waste minimization (\$209K). <u>IMPACT</u> : Failure to operate would cause closure of 300 Area facilities, including labs and delay TWRS TPA milestones associated with core sampling analysis and tank safety investigations.
			CE	150	13,070	
2300-0	200 Area Systems Engineering - Tritium Study	B1	Exp	135	13,205	Evaluates tritium removal technology and prepares yearly status report. <u>IMPACT</u> : TPA M-26-05 milestone would be missed.
2300-0	200 Area ETF Operations	A2	Exp	24,932	38,137	Provides for LERF, ETF and 200 Area TEDF Operations. Includes full WSCF Lab support for effluent sampling. <u>IMPACT</u> : TPA M-26 milestones are missed and 242-A Evaporator is shutdown which impacts numerous TWRS milestones.
			GPP	4,000	42,137	
			CE	150	42,287	
2330-0	340 Facility Secondary Containment and Leak Detection (Project W-302)	B1	Exp	112	42,399	Provides engineering support for 340 Facility Replacement (FY97 Line Item). <u>IMPACTS</u> : Non-compliance with WAC/RCRA for tank systems secondary containment and leak detection requirements. Possible fines or shut-down causing closure of 300 Area facilities including labs and delaying TWRS TPA milestones associated with core sampling and tank safety investigations.
2300-1	Phase II BAT/AKART (Project W-252) [partial funding]	B1	Exp	742	43,141	Continues project support and provides partial funds for initiating construction of Phase II Streams BAT/AKART implementation for Tank Farms, B-Plant, and 284-E Powerplant to meet Oct 97 M-17 milestone. <u>IMPACT</u> : TPA M-17-00B milestone would be missed.
			LI	11,902	55,043	

2.L-5

MHC-SP-1097

FY 1995 MYPP

LIQUID EFFLUENT
WBS Number 1.2.2.1

2.L. Building Blocks						
FY 1996 Building Blocks (\$000)						
ADS	Description	RL Pri	Fund Type	FY 1996	CUM FY 1996	Justification of Scope/Impact if not funded
2300-0	Productivity Commitment (2300-0 @ 4,119)			-4,119	50,924	DECREMENT FUNDING LEVEL MAJOR IMPACTS at DECREMENT LEVEL: (1) TPA Milestone M-17-00B for Phase II Streams BAT/AKART Implementation will be missed. (2) Consent Order milestones for Miscellaneous Streams compliance will be missed. (3) Systems Engineering investigation of new feeds not implemented impacting TPA Milestones M-13 and M-34 and upgrade GPP projects for ETF not supported.
2300-1	Phase II BAT/AKART (Project W-252) [remaining funding]	B1	LI	8,458	63,501	Provides remaining funds for initiating construction of Phase II Streams BAT/AKART implementation for Tank Farms, B-Plant, and 284-E Powerplant to meet Oct 97 M-17 milestone. <u>IMPACTS</u> : TPA M-17-00B milestone would be missed.
2300-0	Miscellaneous Streams	B1	Exp	464	63,965	Continues implementation of Plan and Schedule for Disposal and Regulatory compliance of Miscellaneous Streams. Tasks include implementation of Best Management Practices (\$148K) and WAC 173-216 permit submittals (\$324K). <u>IMPACTS</u> : Consent Order DE 91-NM-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.
2330-0	Miscellaneous Streams BAT Implementation	B1	Exp	356	64,321	Provides engineering support for Miscellaneous Streams Line Item and initiate FDC. <u>IMPACTS</u> : Consent Order DE 91MN-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 missions.
2300-0	200 Area Systems Engineering New Feed Definition	B1	Exp	200	64,521	Supports investigation and acceptance of potential new feeds into 200 Area ETF or TEDF for treatment and disposal. <u>IMPACTS</u> : Potential for TPA M-13, "Groundwater Pump & Treat" and M-34, "K-basin cleanout" milestones to be delayed if logic defines ETF as appropriate treatment facility.

2.L-6

WMC-SP-1097

LIQUID EFFLUENT

WBS Number 1.2.2.1

FY 1995 MYPP

2.L. Building Blocks						
FY 1996 Building Blocks (\$000)						
ADS	Description	RL Pri	Fund Type	FY 1996	CUM FY 1996	Justification of Scope/Impact if not funded
2300-0 2300-1	Productivity Commitment (2300-0 @ 4,246) (2300-1 @ 600)			-4,846	59,675	TARGET FUNDING LEVEL MAJOR IMPACTS at TARGET LEVEL: (1) None - All TPA/Consent Order Milestones will be fulfilled. (2) Support to cost reduction goals defined in TPA Cost and Management Efficiency Initiative will be minimized.
2300-0	200 Area Systems Engineering New Feed Definition	B1	Exp	1,211	65,732	Provides contingent funding for additional treatability testing in support of the 200 Area ETF operation enhancements.
2300-0	300 Area TEDF Office Facility	D2	Exp	44	65,776	Provides for permanent office facility for 300 Area TEDF operations. No office space in treatment building. IMPACTS: Hinder operations, increasing plant downtime and not support TPA Cost and Management Efficiency Initiative.
			Gpp	2,000	67,776	
					67,776	TOTAL REQUIREMENTS
			Decrment	Target	Requird	
Total Operating			38,841	39,861	41,116	
Productivity Commitment			-4,119	-4,246	-4,246	
Total Capital			16,202	24,660	26,660	
Productivity Commitment			0	-600	-600	
Grand Total			50,924	59,675	62,930	

2.L-7

MHC-SP-1097

**LIQUID EFFLUENT
WBS 1.2.2.1**

FY 1995 MYPP

3.A.1 COST BASELINE SUMMARY/PROGRAM ELEMENT - OPERATING EXPENSE (\$ 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	179.8	161.7	171.0	165.2	129.4	136.8	231.5	197.0	187.2	171.7	137.1	163.6	2,032.0
1.2.2.1.1.0001	Program Management	124.3	111.8	118.2	132.6	107.8	114.1	142.3	113.4	107.8	130.4	114.4	136.4	1,453.5
1.2.2.1.1.0003	LERF Operations	55.5	49.9	52.8	32.6	21.6	22.7	89.2	83.8	79.4	41.3	22.7	27.2	578.5
1.2.2.1.2	200 Area ETF Operations	1,577.7	1,449.3	1,522.6	2,015.5	1,724.6	1,698.1	2,207.8	1,829.3	1,661.4	1,890.0	1,646.6	1,978.2	21,199.1
1.2.2.1.2.0001	200 Area LE Facilities Operations	367.6	345.4	338.0	411.1	347.2	291.1	487.2	414.4	332.7	364.0	345.4	414.5	4,456.6
1.2.2.1.2.0002	200 Area LE Facilities Maintenance	165.6	147.8	173.8	268.5	224.5	221.4	278.5	224.0	212.8	237.8	201.9	315.6	2,672.2
1.2.2.1.2.0003	200 Area LE Facilities Opms Support	430.7	390.5	419.5	607.5	493.5	537.7	675.6	547.8	551.3	675.9	574.7	619.2	6,523.9
1.2.2.1.2.0004	200 Area LE Facilities Engineering	161.3	148.7	147.5	153.9	151.7	183.5	203.9	213.6	182.1	152.0	122.3	146.7	1,967.2
1.2.2.1.2.0005	200 A Regulatory Compliance/Permit	452.5	416.9	445.8	574.5	507.7	464.4	562.6	429.5	382.5	460.3	402.3	480.2	5,579.2
1.2.2.1.3	300 Area TEDF Operations	1,003.5	850.9	895.9	1,182.8	949.0	991.7	1,289.1	967.7	916.8	1,123.8	977.2	1,173.2	12,321.6
1.2.2.1.3.0001	300 Area LE Facilities Operations	521.0	468.8	495.5	641.3	542.6	570.5	713.2	554.2	524.2	634.0	551.4	662.0	6,878.7
1.2.2.1.3.0002	300 Area LE Facilities Maintenance	285.8	205.1	213.5	315.2	218.5	224.5	340.6	227.5	215.8	275.8	239.8	288.0	3,051.1
1.2.2.1.3.0004	300 Area LE Facilities Engineering	189.0	170.1	179.5	217.4	179.5	189.0	225.6	178.3	169.4	205.1	178.3	213.9	2,295.1
1.2.2.1.3.0005	300 Area Regulatory Compl/Permit	7.7	6.9	7.4	8.9	7.4	7.7	9.7	7.7	7.4	8.9	7.7	9.3	96.7
1.2.2.1.4	Liquid Effluent Advanced Engineering	417.5	258.5	301.7	472.4	398.8	390.6	560.0	424.8	348.8	418.2	352.0	404.3	4,747.6
1.2.2.1.4.0002	200 Area LE Advanced Engineering	98.5	78.6	108.1	214.8	165.8	190.6	249.4	195.8	175.4	216.1	173.4	206.9	2,073.4
1.2.2.1.4.0003	300 Area LE Advanced Engineering	167.7	48.6	55.2	60.5	45.1	36.5	42.6	49.9	62.5	77.4	67.5	80.4	793.9
1.2.2.1.4.0004	Miscellaneous Streams	31.2	28.2	29.7	65.7	99.6	116.8	217.2	138.8	72.6	80.0	72.7	79.3	1,031.8
1.2.2.1.4.0005	Tritium Waste Technology Evaluation	12.8	11.5	12.2	14.7	12.2	12.8	14.5	11.3	10.7	11.3	9.4	2.9	136.3

3.A-1

MHC-SP-1097

**LIQUID EFFLUENT
WBS 1.2.2.1**

FY 1995 MYPP

3.A.1 COST BASELINE SUMMARY/PROGRAM ELEMENT - OPERATING EXPENSE (\$ in 000s)														
<i>RL WBS</i>	<i>WBS TITLE</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>
1.2.2.1.4.0006	Interim Compliance	107.3	91.6	96.5	116.7	76.1	33.9	36.3	29.0	27.6	33.4	29.0	34.8	712.2
ADS 2300-0 TOTAL		3,178.5	2,720.4	2,891.2	3,835.9	3,201.8	3,217.2	4,288.4	3,418.8	3,114.2	3,603.7	3,112.9	3,717.3	40,300.3
ADS 2300-1 Phase II Effluent Treatment/Disposal														
1.2.2.1.5	Phase II Effluent Treatment/Disposal	51.6	46.1	60.7	65.3	38.2	171.4	84.5	37.9	36.4	48.7	44.5	53.3	738.6
1.2.2.1.5.0001	BAT Implementation Phase II Streams	51.6	46.1	60.7	65.3	38.2	171.4	84.5	37.9	36.4	48.7	44.5	53.3	738.6
ADS 2300-1 TOTAL		51.6	46.1	60.7	65.3	38.2	171.4	84.5	37.9	36.4	48.7	44.5	53.3	738.6
ADS 2330-0 Liquid Effluent Future Projects														
1.2.2.1.9	340 Facility Secondary Containment	42.8	42.5	43.1	44.2	43.1	43.3	44.7	44.9	5.1	6.3	5.4	6.6	372.0
1.2.2.1.9.0001	Project W-302	42.8	42.5	43.1	44.2	43.1	43.3	44.7	44.9	5.1	6.3	5.4	6.6	372.0
ADS 2330-0 TOTAL		42.8	42.5	43.1	44.2	43.1	43.3	44.7	44.9	5.1	6.3	5.4	6.6	372.0
LIQUID EFFLUENT TOTAL PROGRAM		3,272.9	2,809.0	2,995.0	3,945.4	3,283.1	3,431.9	4,417.6	3,501.6	3,155.7	3,658.7	3,162.8	3,777.2	41,410.9

3.A-2

MHC-SP-1097

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1995 MYPP

3.A.2 PROGRAM SUMMARY/COST ELEMENT - OPERATING EXPENSE (\$ in 000s)													
COST ELEMENT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
ADS 2300-0 LIQUID EFFLUENTS													
0 - LABOR	1,533.2	1,369.9	1,459.6	1,756.5	1,491.1	1,496.9	1,927.6	1,549.6	1,409.5	1,618.1	1,413.5	1,754.9	18,780.4
1 - MATERIALS	151.4	102.1	107.3	199.5	139.3	118.0	188.7	112.3	106.2	140.3	121.4	197.2	1,683.7
2 - PURCHASED SERVICES	276.9	192.9	202.5	357.7	274.9	292.8	361.1	295.8	289.8	358.1	310.0	360.0	3,572.5
3 - OTHER CONTRACTORS	32.6	29.4	23.2	37.4	32.8	38.1	45.0	35.3	47.7	69.3	48.4	57.2	496.4
4 - SITE SERVICES	56.3	43.7	45.4	117.3	106.8	107.9	143.9	106.8	106.2	128.9	113.1	134.0	1,210.3
5 - INTERNAL CHARGES	113.8	102.4	108.1	186.2	169.6	178.5	337.6	301.3	225.4	217.7	178.5	214.2	2,333.3
6 - IRM	36.9	29.1	30.7	37.1	29.9	29.4	21.2	14.0	13.3	14.6	12.4	13.4	282.0
7 - DEPARTMENTAL OVERHEAD	385.4	341.2	365.4	443.0	379.5	384.2	484.2	384.4	353.6	407.8	353.4	414.1	4,696.2
8 - G&A/CSP	563.8	481.7	511.4	683.7	572.0	576.0	764.9	610.3	553.8	639.0	553.5	735.8	7,245.9
TOTAL ADS 2300-0	3,150.3	2,692.4	2,853.6	3,818.4	3,195.9	3,221.8	4,274.2	3,409.8	3,106.5	3,593.8	3,104.2	3,880.8	40,300.7
ADS 2300-1 PHASE II EFFLUENT TREATMENT/DISPOSAL													
0 - LABOR	28.3	25.6	27.0	32.2	17.9	21.4	23.7	17.4	16.7	20.1	17.4	20.7	268.4
1 - MATERIALS	1.0	.9	6.8	2.2								60.0	70.9
2 - PURCHASED SERVICES	1.0	.9	1.2	4.1	2.9	97.6	29.4	3.1	3.3	8.6	8.7	10.4	171.2
3 - OTHER CONTRACTORS													0.0
4 - SITE SERVICES	.4	.3	.3	.5	.1	9.6	2.7	.1	.1	.2	.1	.2	14.6
5 - INTERNAL CHARGES													0.0
6 - IRM			2.4	.6									3.0
7 - DEPARTMENTAL OVERHEAD	7.4	6.8	7.2	9.6	6.2	7.7	8.3	6.1	5.8	7.0	6.1	7.3	85.5
8 - G&A/CSP	8.4	7.6	10.1	10.8	6.0	30.0	14.1	5.9	5.7	7.9	7.1	8.5	122.1
ADS 2300-1 TOTAL	46.5	42.1	55.0	60.0	33.1	166.3	78.2	32.6	31.6	43.8	39.4	107.1	735.7

3.A-3

WHC-SP-1097

**LIQUID EFFLUENT
WBS 1.2.2.1**

FY 1995 MYPP

3.A.2 PROGRAM SUMMARY/COST ELEMENT - OPERATING EXPENSE (\$ in 000s)													
COST ELEMENT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
ADS 2330-0 LIQUID EFFLUENT FUTURE PROJECTS													
0 - LABOR	3.4	3.1	3.3	4.0	3.3	3.4	4.3	3.4	3.3	4.0	3.4	4.1	43.0
1 - MATERIALS													0.0
2 - PURCHASED SERVICES													0.0
3 - OTHER CONTRACTORS	35.7	35.7	35.7	35.7	35.7	35.7	35.7	37.2					287.1
4 - SITE SERVICES													0.0
5 - INTERNAL CHARGES													0.0
6 - IRM													0.0
7 - DEPARTMENTAL OVERHEAD	.8	.7	.8	.9	.8	.8	1.0	.8	.8	.9	.8	1.0	10.1
8 - G&A/CSP	3.1	3.1	3.1	3.3	3.1	3.2	3.4	3.3	.9	1.1	1.0	1.2	29.8
ADS 2330-0 TOTAL	43.0	42.6	42.9	43.9	42.9	43.1	44.4	44.7	5.0	6.0	5.2	6.3	370.0

3.A-4

MHC-SP-1097

**LIQUID EFFLUENT
WBS 1.2.2.1**

FY 1995 MYPP

3.A.3 COST BASELINE SUMMARY - CAPITAL EQUIPMENT NOT RELATED TO CONSTRUCTION (\$ 000s)														
<i>RL WBS</i>	<i>WBS TITLE</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														
1.2.2.1.2	200 Area ETF Capital Equipment		50	50	50									150.0
1.2.2.1.3	300 Area TEDF Capital Equipment		50	50	50									150.0
ADS 2300-0 TOTAL		0.0	100.0	100.0	100.0	0.0	300.0							
ADS 2300-1 PHASE II EFFLUENT TREATMENT/DISPOSAL														
NONE														
ADS 2330-0 LIQUID EFFLUENT FUTURE PROJECTS														
NONE														

3.A-5

MHC-SP-1097

**LIQUID EFFLUENT
WBS 1.2.2.1**

FY 1995 MYPP

3.A.4 COST BASELINE SUMMARY - GENERAL PLANT PROJECT (\$ in 000s)														
<i>RL WBS</i>	<i>WBS TITLE</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>
	NONE													

3.A-6

MHC-SP-1097

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1995 MYPP

3.A.5 COST BASELINE SUMMARY - LINE ITEM (\$ 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														
1.2.2.1.5.0002	Project W-252, Phase II Stream BAT Implementation				342	342	342	381	381	381	1,607	1,662	1,662	7,100.0
ADS 2330-0 LIQUID EFFLUENT FUTURE PROJECTS														
	NONE													

3.A-7

WHC-SP-1097

**LIQUID EFFLUENT
WBS 1.2.2.1**

FY 1995 MYPP

3.B PROGRAM FUNDING (\$ in 000s)															
RL WBS	WBS TITLE	FUND TYPE	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1.2.2.1	ADS 2300-0 Liquid Effluents	OP	3,179	2,720	2,891	3,836	3,202	3,217	4,288	3,419	3,114	3,604	3,113	3,717	40,300
		CE		100	100	100									300
	Productivity Commitment	GPP	none												
		LI	none												
		OP	-276	-236	-251	-333	-278	-279	-372	-296	-270	-312	-270	-330	-3,521
	ADS 2300-0 Total Funds		2,903	2,484	2,640	3,503	2,924	2,938	3,916	3,123	2,844	3,372	2,843	3,387	37,079
1.2.2.1	ADS 2300-1 Phase II Effluent Treatment/Disposal	OP	52	46	61	65	38	171	85	38	36	49	45	53	739
		CE	none												
	Productivity Commitment	GPP	none												
		LI				342	342	342	381	381	381	1,607	1,662	1,662	7,100
		LI				-25	-25	-25	-27	-27	-27	-112	-116	-116	-500
	ADS 2300-1 Total Funds		52	46	61	382	355	488	439	392	390	1,544	1,591	1,599	7,339
1.2.2.1	ADS 2330-0 Liquid Effluent Future Projects	OP	43	43	43	44	43	43	45	45	5	6	5	7	372
		CE	none												
	Productivity Commitment	GPP	none												
		LI	none												
		LI	none												
	ADS 2330-0 Total Funds		43	43	43	44	43	43	45	45	5	6	5	7	372
Delta Target Budget to Required Budget Case															
ADS 2300-0 Liquid Effluents															
1.2.2.1.4	Liquid Effluent Advanced Engineering - Contingent for additional pilot plant testing for ETF new feed development	OP					100	100	100	100	96				496
1.2.2.1.4	300 Area TEDF Office Facility - upfront engineering/procurement of office space.	OP	14	14	14	14	15	32	52	52	52	32	27	17	335

3.B1

MHC-SP-1097

LIQUID EFFLUENT

WBS 1.2.2.1

FY 1995 MYPP

3.C FY 1994 Program Carryover (\$ in 000s)

- \$ 606.0 Startup/Testing Team for 200 Area ETF
- Develop and write OTP Test Procedures on 65 systems prior to initiation of OTP efforts
 - Develop a turnover Program Plan to identify the process and responsibilities involved at the time of Project completion
 - Create "Punchlist Walk-downs" in review of system completion for acceptability
 - Analyze completed OTP test results and related efforts to rectify discrepancies
- 76.0 LERF Operations Sample Analysis
- Due to delays in 242-A Evaporator restart, only one of the two sampling events planned for FY 1994 will take place. This will be done in September 1994 and only a small portion of the laboratory costs will be applied this fiscal year. Approximately \$76K will be costed in FY 1995.
- 92.0 LERF Filtration Test
- Conduct one pilot scale polymeric backwash filtration test at the LERF site using actual 242-A Evaporator process condensate. Test is designed to generate data on filtration efficiencies and biological growth fouling. Work includes running the test, sample collection and analyses, data analysis and report preparation and issuance.
- 350.1 Advanced Conceptual Design for Project W-252
- Preparation of the Advanced Conceptual Design for Project W-252 by the Corps of Engineers. Workscope includes more detailed conceptual engineering as well as some advanced procurement specification development to support long-lead procurement items. Funding is also provided for ACD preparation support from the QA and Waste Tank Safety organizations.
- 120.0 Communications for 200 Area ETF
- Project schedule delays necessitated this work being moved back into FY 1995. This workscope includes wiring, hookup and testing of HLAN and radio systems associated with the 200 Area ETF, trailers, and support office building.
- 58.4 200 Area ETF Training Support Contract
- Develop On-the-Job Training Qualification Card/Guides
 - Develop Job Performance Measures
 - Conduct classroom training courses on Facility Secondary Treatment Train Systems (23 systems total)

3.C-1

MHC-SP-1097

LIQUID EFFLUENT
WBS 1.2.2.1

FY 1995 MYPP

3.C FY 1994 Program Carryover (\$ in 000s)

- 114.1 200 Area ETF Facility Description Manual Contract
- Complete final version of the Facility Description Manual by the end of December 1994.

\$1,416.6

3.C-2

WHC-SP-1097

Work Breakdown Structure Dictionary	Westinghouse Hanford Company Liquid Effluents Services Part I - Summary (Dollars in 000's)		FY 1995 SSPP Rev. # 0		Funding Source: G&A SWS OST DOH X MGT PRO POOL DIRECT
	Cost Account 1J8600	Cost Account Title Liquid Effluents Services DOH	31-Aug-94		Annualized Rate (For Organizational Overhead and Rated Service Pool Use Only)
SMS WBS 6.12.3.6	SMS Title Liquid Effluents Services	CAM Review/Approval F. T. Green <i>F.T. Green</i> Date 8/31/94		FY 1994 Rate	FY 1995 Rate Request
SMS Program Manager Review/Approval		Date 8/31/94		20%/33%*	25%
Financial Manager Review/Approval F. T. Green <i>F.T. Green</i>		Date 8/31/94		FY 1995 Target Rate	FY 1995 Approved Rate
Responsible Analyst C. M. Allender <i>Colleen Allender</i>		Date 8/31/94		25%	
OSBRB Review/Approval B. R. Thomas		Date			
	FY 1994		FY 1995		
FULL-TIME EQUIVALENTS (FTEs)	Budget	Fiscal Year Spending Forecast (FYSF)	Target	Request	Approved Baseline
. Organizational - Exempt	5.5	4.3		3	
. Organizational - Nonexempt	2.5	2.4		1.5	
. Organizational - Bargaining	0	0.1		0	
Total Organizational FTEs	8	6.8		4.5	
Support FTEs	0	0		0	
TOTAL FTEs	8	6.8		4.5	
COST ELEMENTS					
. Labor - Regular	443	410		250	
. Labor - Overtime	14	12			
0 Total Labor	457	422		250	
1 Materials	157	201		32	
2 Purchased Services	291	244		52	
3 Other Hanford	4	4		0	
4 Site Services	1,675	1,663		1,426	
5 Internal Charges	760	760		757	
6 IRM Support	989	926		399	
7 Overheads	0	6		0	
8 Revenue	0	0		0	
TOTAL DOLLARS	4,332	4,225	2,916	2,916	

*The overhead rates for 86xxx organizations for FY1994 are 20% except 865xx and 869xx at 33%.

MHC-SP-1097

Cost Account

1J8600

Part II - Element Definition (continued)

ELEMENT TASK DESCRIPTION

WORK STATEMENT -

REQUESTS WITHIN TARGET:

Activity Detailed Description - 1J86000000 LES Overhead

Provides funding for Level II staff, occupancy, bus operations, dosimetry, management proration, computer assessments, telephones, and miscellaneous indirect costs for Level II and III organizations other than 865xx and 86Cxx

	FY 1994 FYSF		Delta		FY 1995		Delta		FY 1996	
	FTEs	Dollars	FTEs	Dollars	FTEs	Dollars	FTEs	Dollars	FTEs	Dollars
Labor Cost	4.5	246.4	1.5	79.7	3	166.7	0.0	-5.0	3	171.7
Non-Labor Cost		2846.9		209.6		2637.3		-79.1		2716.4

Activity Detailed Description - 1J86000005 Financial Services

Provides overhead funding for the Financial Services organization (86500) under 86xxx.

Labor Cost	0.7	77.4	0.7	77.4	0	0	0.0	0.0	0	0.0
Non-Labor Cost		92.1		78.4		13.7		-0.4		14.1

Activity Detailed Description - 1J8600000C LES Training

Provides overhead funding for the LES Training organization (86C00) under 86xxx. This organization is new to 86xxx and did not have an overhead budget with its previous organization.

Labor Cost	0	0	-1.5	-83.4	1.5	83.4	0.5	-2.5	1	85.9
Non-Labor Cost		0		-11.6		11.6		-0.3		11.9

Activity Detailed Description - 1J860002 E&ETS Overhead

E&ETS is no longer a part of the LES (86xxx) organization. All of 869xx was transferred to 8D8xx. FY1994 dollars are included here for report consistency.

Labor Cost	1.6	98.6	1.6	98.6	0	0	0.0	0.0	0	0.0
Non-Labor Cost		863.6		863.6		0		0.0		0.0

REQUESTS ABOVE TARGET:

Activity Detailed Description

No activities above target.

Total Cost Account		4225.0		1312.3		2912.7		-87.4		3000.1
--------------------	--	--------	--	--------	--	--------	--	-------	--	--------

MHC-SP-1097

Work Breakdown Structure Dictionary	Westinghouse Hanford Company Liquid Effluents Services Part III – Liquidation Base Analysis FOR ORGANIZATIONAL OVERHEAD <u>ONLY</u>													FY 1995 SSPP Revision # 0				
Cost Account 1J8600	Cost Account Title WAES DOH																	
	FY 1994 FORECAST (\$000)	FY 1995												(a) x	(b) x	(c)	(d)	
DIRECT STAFF*		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	AVG. DIRECT STAFF	AVG. LABOR RATE	REALIZATION HOURS	DIRECT LABOR (\$000)	
EXEMPT		115	115	115	115	115	115	115	115	115	115	115	115	115	36.46	1812	7,598	
NONEX / PT / TEMP		21	21	21	21	21	21	21	21	21	21	21	21	21	19.09	1812	709	
BARGAINING UNIT		59	59	59	59	59	59	59	59	59	59	59	59	59	32.51	1812	3,476	
JOB SHOPPER		0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	1812	0	
OVERTIME FACTOR %																	0	
DIRECT LABOR BASE	16,157	195	195	195	195	195	195	195	195	195	195	195	195	195			11,782	
ORG OVHD COST	4,225																	2,916
DIRECT LABOR BASE	16,152																	11,782
RATE (COST/BASE)	26.2%																	24.7%

* Direct staff is staff that charges labor to charge codes on which organizational overhead is applied.

IJ8600 COST ACCOUNT :			
Work Breakdown Structure Dictionary	Westinghouse Hanford Company Liquid Effluents Services Part II – Element Definition		FY 1995 SSPP Revision # 0

WBS ELEMENT CODE: 6.12.3.6	TITLE: Waste, Analytical and Environmental Services
<p>ELEMENT TASK DESCRIPTION</p> <p><u>COST CONTENT –</u></p> <p>This is a department overhead account funded by an overhead rate applied to direct labor rates.</p> <p><u>TECHNICAL CONTENT –</u></p> <p>Work activities include general function management and administrative support. General assessments such as occupancy, dosimetry/medical, telephone services, computer assessments, and management proration are also funded here. In addition, costs for employee personal development training and education reimbursement are included. Funding is also required for supplies, training and travel that support a variety of programs.</p> <p><u>OBJECTIVES –</u></p> <p>As stated above.</p> <p><u>ASSUMPTIONS/CONSTRAINTS –</u></p> <p>Staffing levels will not increase significantly. 1% contingency funds are included to cover potential additional costs for occupancy, bus operations, telephone use, computer repairs, etc.</p> <p><u>MILESTONES –</u></p> <p>None</p> <p><u>DELIVERABLES –</u></p> <p>None</p>	

MHC-SP-1097

FY 1995 MYPP

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT

1.2.2.2

ATTACHMENT 4

Section I

Program Overview and Technical Basis

WHC-SP-1097

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT

1.2.2.2

Attachment 4

SECTION I

1.0	PROGRAM OVERVIEW	1.
A.	Program Vision/Mission.	1.A-1
B.	Program Mission Strategy.	1.B-1
B.1	Technical Functions/Requirements.	1.B.1-1
B.2	Program Objectives.	1.B.2-1
C.	Program Planning Assumptions.	1.C-1
D.	Program Issues and Constraints.	1.D-1

SECTION II

HEC MSA WBS Crosswalk
Hanford Environmental Compliance Project-Under Construction
Hanford Environmental Compliance Project-Completed/Cancelled Projects

2.A.2	WBS DICTIONARY	2.A.2-1
2.B	WORK BREAKDOWN STRUCTURE INDEX AND PROGRAMMATIC RESPONSIBILITY ASSIGNMENT MATRIX	2.B-1
	Program Logic Diagram Program Master Baseline Schedule Program Performance Baseline Schedule	
2.F	MILESTONE LIST	2.F-1
2.G	MILESTONE DESCRIPTION SHEETS	2.G-1
2.H.1	COST BASELINE SUMMARY.	2.H-1
2.I	BASIS OF ESTIMATE.	2.I-1
2.J	WASTE TYPE PROJECTIONS - FY 1995	2.J-1

WHC-SP-1097

2.K PLANNED STAFFING 2.K-1

Staffing Summary Graph

2.L BUILDING BLOCKS. 2.L-1

3.A.1 COST BASELINE SUMMARY/PROGRAM ELEMENT - OPERATING EXPENSE

A. Operating Expense Carryover Subproject C-018H

3.A.2 PROGRAM SUMMARY/COST ELEMENT - OPERATING EXPENSE

A. Operating Expense Carryover Subproject C-018H

3.A.5 COST BASELINE SUMMARY - LINE ITEM

3.B PROGRAM FUNDING

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT

FY 1995 MYPP

1.2.2.2

1. Program Overview

The Hanford Environmental Compliance (HEC) Project is unique in that it consists of 14 subprojects which vary in project scope and are funded from more than one program division. Ten of the fourteen subprojects support Tri-Party Agreement milestones.

The Total Project Cost (TPC) for the HEC Project is \$254.4 million and the Total Estimated Cost (TEC) is \$214.7 million based on the approval of the HEC Project Plan by the Secretary of Energy November 8, 1993. Approximately half of the HEC Project funding will be used to implement best available technology (BAT) economically achievable in eliminating discharges of contaminated liquids to the soil column at the Hanford Site. Remaining funding will be applied to Resource Conservation and Recovery Act (RCRA) and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) environmental compliance activities such as groundwater monitoring, upgrades to existing systems, and treatment, storage and disposal of radioactive mixed and hazardous wastes.

1.

MHC-SP-1097

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT

FY 1995 MYPP

1.2.2.2

1.A. Program Vision/Mission

The Hanford Environmental Compliance (HEC) Project's mission is to support the Hanford Site's achievement of site-wide compliance with applicable environmental laws, and with the U.S. Department of Energy (DOE) orders in a safe and secure manner. The HEC Project will provide for monitoring of select Hanford operations to ensure that environmental requirements are met, for modifying specific facilities at Hanford to attain environmental compliance, and for mitigating environmental consequences of current operations for selected facilities.

The HEC Project activities will bring marked environmental improvements to the operations at the Hanford Site and reduce environmental impacts from future Hanford operations. Objectives include:

- Discontinue disposal of contaminated liquids to the soil column. This is being accomplished through:
 - Subproject W-007H, B Plant Process Condensate Treatment Facility
 - Subproject C-031H, PFP Liquid Effluent Treatment Facility
 - Subproject W-291H, 200 Areas Effluent BAT/AKART Implementation
 - Subproject V-791H, 300/400 Area Waste Water Facilities
 - Subproject B-680H, PFP Liquid Low Level Waste System Modification
- Augment existing capabilities for analysis to ensure environmental standards are met. The subprojects responsible for this are:
 - Subproject W-011H, Waste Sampling and Characterization Facility
 - Subproject W-020H, Waste Management Facilities Cathodic Protection
 - Subproject W-017H, Groundwater Monitoring Wells Systems
 - Subproject W-041H, Environmental Hot Cell Expansion
- Add or enhance capabilities for treatment, storage, and disposal of waste. This is being done by:
 - Subproject C-018H, 242-A Evaporator/PUREX Condensate Treatment Facility
 - Subproject W-049H, 200 Area Treated Effluent Disposal Facility
 - Subproject L-045H, 300 Area Treated Effluent Disposal Facility
 - Subproject W-016H, Radioactive Mixed Waste Storage Facilities
- Reduce currently generated quantities of waste of all types (waste minimization--hazardous, radioactive, and mixed). This is accomplished through Subproject W-010H, B Plant Environmental Compliance Upgrades.

1.A-1

MHC-SP-1097

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT

FY 1995 MYPP

1.2.2.2

1.B. Program Mission Strategy

Complete authorized work scope on each HEC subproject within the Baseline Total Estimated Cost (TEC)/Total Project Cost (TPC) as well as complete each subproject on schedule. Closeout the entire HEC Project by September 1995. Meet all scheduled U.S. Department of Energy, Richland Operations Office (DOE-RL), HQ and Tri-Party Agreement milestones. Support the operational acceptance and permitting activities necessary to complete each HEC subproject. Comply with DOE orders and directives, WHC Procedures, and applicable regulations.

The HEC Project is on schedule to complete in September of 1995. There is not a contingency plan in place.

1.B-1

WHC-SP-1097

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT

FY 1995 MYPP

1.2.2.2

1.B.1. Technical Functions/Requirements

The technical approach for the HEC Project is to use best available proven technologies. In addition, standardized, off-the-shelf hardware and software will be used to the maximum extent practicable.

Technical management will consist of monitoring each subproject against approved baselines. Preliminary engineering studies, conceptual design reports (CDR), functional design criteria, and the governing codes, standards, and regulations will serve as the basis for definitive design, procurement, construction, and acceptance.

The project team will utilize the technical expertise of the Operation and Engineering Contractor, Westinghouse Hanford Company (WHC), and the onsite Engineer Constructor Contractor (ECC), ICF Kaiser Hanford Company (ICF KH), for day-to-day project management, including design and construction management. Use of offsite architect-engineers (A-Es) and competitive fixed-price construction contractors may be employed whenever it is deemed in the best interest of the government.

1.B.1-1

WHC-SP-1097

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT

FY 1995 MYPP

1.2.2.2

1.B.2. Program Objectives

OBJECTIVES

The primary objectives of the HEC Project are to upgrade selected Hanford Site facilities, systems, and operational capabilities that require modifications or enhancements to bring Hanford into compliance with the current environmental standards and regulations, and the Tri-Party Agreement. The project will contribute towards the Hanford site's compliance with applicable Resource Conservation and Recovery Act (RCRA) and Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) requirements. The HEC Project activities will provide, in part, those construction activities also required to comply with DOE Order 5480.1B, *Environmental Protection Safety, and Health Protection Program for DOE Operations*, the *Environmental Protection Policy for Hanford*, the *Hanford Environmental Management Program Plan*, the intent of the *Plan and Schedule to Discontinue Disposal of Contaminated Liquids into the Soil Column at the Hanford Site* (March 1987), and DOE Order 5400.5, *Radiation Protection of the Public and the Environment*.

The HEC Project will attain these objectives in a safe, secure, and environmentally sound manner and in full compliance with applicable DOE orders.

Schedule Objectives

The HEC Project Plan is the baseline project document providing schedule objectives for all of the individual subprojects. The Project Plan schedules, if met, support regulatory milestones contained in the Tri-Party Agreement.

Definitive design activities for the HEC Project began in the second quarter of Fiscal Year (FY) 1989 (five FY 1989 subprojects). Physical construction started in the second quarter of FY 1989 with the drilling of the initial groundwater monitoring wells.

Start of operations will coincide with the individual subproject schedules. The total HEC Project is scheduled for completion in 1995. Two B Plant subprojects are scheduled to upgrade existing facilities to meet environmental and safety compliance requirements, while six subprojects related to the soil column plan must be completed by FY 1995 to meet DOE commitments to Congress. In total, 10 subprojects support completion of commitments made by the DOE to both the State of Washington and the U.S. Environmental Protection Agency (EPA) in the Tri-Party Agreement signed in May 1989.

1.B.2-1

MHC-SP-1097

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT

FY 1995 MYPP

1.2.2.2

1.B.2. Program Objectives

Quality and Reliability Objectives

The HEC Project will be executed in full compliance with governing orders, policies, and procedures. The quality assurance (QA) policy has been defined in the *Project Management Plan (PMP)*, *HEC Project (WHC-SD-W042H-PMP-001, Rev. 1)*, and the *Quality Assurance Program Plan (QAPP) for the HEC Project (WHC-SD-W042H, QAPP-001, Rev. 0)*. Each subproject will be governed by a specific QA plan. Design reviews will be held for each design package. Reviews will cover the technical, functional, operational, construction, environmental, regulatory, quality, and safety aspects of each subproject. Quality and safety surveillances will be initiated early in the process of each subproject and continued through each project phase to ensure that quality and reliability are an integral part of the HEC Project.

Cost Objectives

The overall capital cost objective for the HEC Project is \$214.7 million based on a summary of the total estimated construction costs (TECCs) for each of the subprojects. Validated cost estimates for each of the subprojects are based on completed conceptual designs, schedules, and detailed conceptual cost estimates.

1.B.2-2

MHC-SP-1097

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT

FY 1995 MYPP

1.2.2.2

1.C. Program Planning Assumptions

The HEC Project will be completed on schedule and within its authorized TEC/TPC. The subprojects that will be closed out in FY 1995 are: L-045H, 300 Area Treated Effluent Disposal Facility; C-018H, 242-A Evaporator/PUREX Condensate Treatment Facility; W-007H, B Plant Process Condensate Treatment Facility; C-031H, PFP Liquid Effluent Treatment; W-049H, 200 Area Treated Effluent Disposal Facility; and W-291H, 200 Areas Effluent BAT/AKART Implementation.

The present Hanford Mission will remain the same through September 1995.

No funding reductions to the program.

Present work scope of each subproject will not change.

No unanticipated site conditions are encountered by the individual subprojects.

Environmental permits will be approved to support start-up and operation of the new and/or upgraded facilities.

Operations are ready to accept turnover of the subjects.

1.C-1

MHC-SP-1097

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT

FY 1995 MYPP

1.2.2.2

1.D. Program Issues and Constraints

Timely approval of environmental permits to allow operation of new or upgraded facilities and to support project, program, and Tri-Party Agreement milestones.

Contractor performance issues on Subproject C-018H, "242-A Evaporator/PUREX Plant Condensate Treatment Facility," may cause delay in operational start-up. A change request has been issued to U.S. Department of Energy, Richland Operations Office (RL) requesting change to the construction completion milestone from 6/94 to 2/95 and project completion milestone from 10/94 to 6/95. RL is presently evaluating this change request.

1.D-1

MHC-SP-1097

FY 1995 MYPP

PROGRAM TITLE
WBS Number

ATTACHMENT 4

Section II

Program Baselines

(Schedules, Cost, and Milestones)

WHC-SP-1097

HEC MSA WBS CROSSWALK

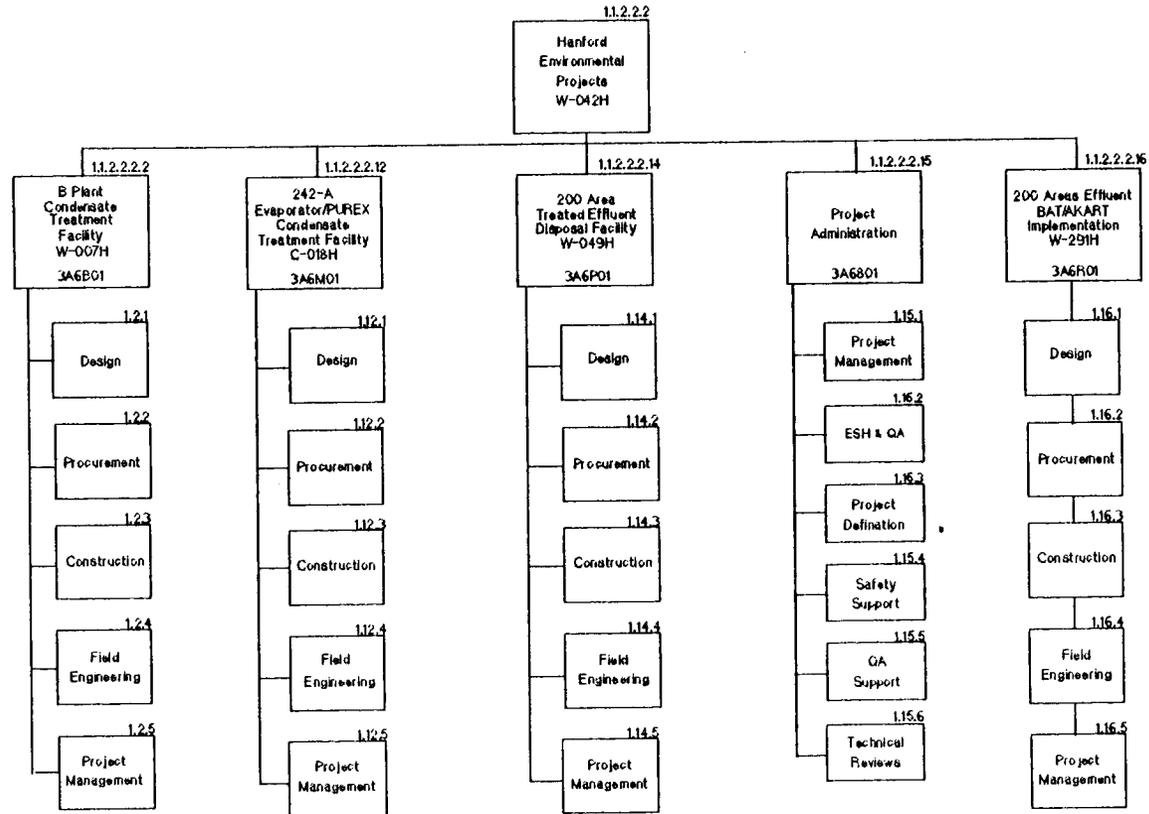
SUBPROJECT	FDS WBS CAPITAL	FDS WBS EXPENSE	ADS SUB PROJECT	DOE/RL WBS	DOE/HQ WBS
HEC MSA	3A6	1A6	2310-01	1.1.2.2.2	1.3.7.3.5
W-017H Ground Water Monitoring Wells	3A6A01	1A6A01	AB	1.1.2.2.2.1	1.3.7.3.5.1
W-007H B Plant Condensate Treatment Facility	3A6B01	1A6B01	AA	1.1.2.2.2.2	1.3.7.3.5.2
W-020H Waste Management Facilities	3A6C01	1A6C01	AL	1.1.2.2.2.3	1.3.7.3.5.3
V-791H 300/400 Area Waste Water Facilities	3A6D01	1A6D01		1.1.2.2.2.4	1.3.7.3.5.4
W-016H RMW Storage Facilities	3A6E01	1A6E01		1.1.2.2.2.5	1.3.7.3.5.5
B-680H PFP Liquid LLW System Modification	3A6F01	1A6F01	AC	1.1.2.2.2.6	1.3.7.3.5.6
C-031H PFP Liquid Effluent Treatment Facilities	3A6G01	1A6G01	AD	1.1.2.2.2.7	1.3.7.3.5.7
W-010H B Plant Environmental Compliance Upgrades	3A6H01	1A6H01	AK	1.1.2.2.2.8	1.3.7.3.5.8
W-011H Waste Sampling & Characterization Facility	3A6J01	1A6J01	AJ	1.1.2.2.2.9	1.3.7.3.5.9
W-024H B Plant Radiological Effluent Containment Upgrades	3A6K01	1A6K01	AE	1.1.2.2.2.10	1.3.7.3.5.1
W-041H Environmental Hot Cell Expansion	3A6L01	1A6L01	AF	1.1.2.2.2.11	1.3.7.3.5.1
C-018H 242-A Evaporator/PUREX Condensate Treatment Facility	3A6M01	1A6M01	AG	1.1.2.2.2.12	1.3.7.3.5.1
L-045H 300 Area Treated Effluent Disposal Facility	3A6N01	1A6N01	AI	1.1.2.2.2.13	1.3.7.3.5.1
W-049H 200 Area Treated Effluent Disposal Facility	3A6P01	1A6P01	AH	1.1.2.2.2.14	1.3.7.3.5.1
W-042H Project Administration	3A6801	1A6801	AM	1.1.2.2.2.15	1.3.7.3.5.1
W-291H 200 Areas Effluent BAT/AKART Implementation	3A6R01	1A6R01	AR	1.1.2.2.2.16	1.3.7.3.5.1

Hanford Environmental Compliance Project

FY 1995 MYPP

Work Breakdown Structure

Under Construction - Scheduled Completion FY95



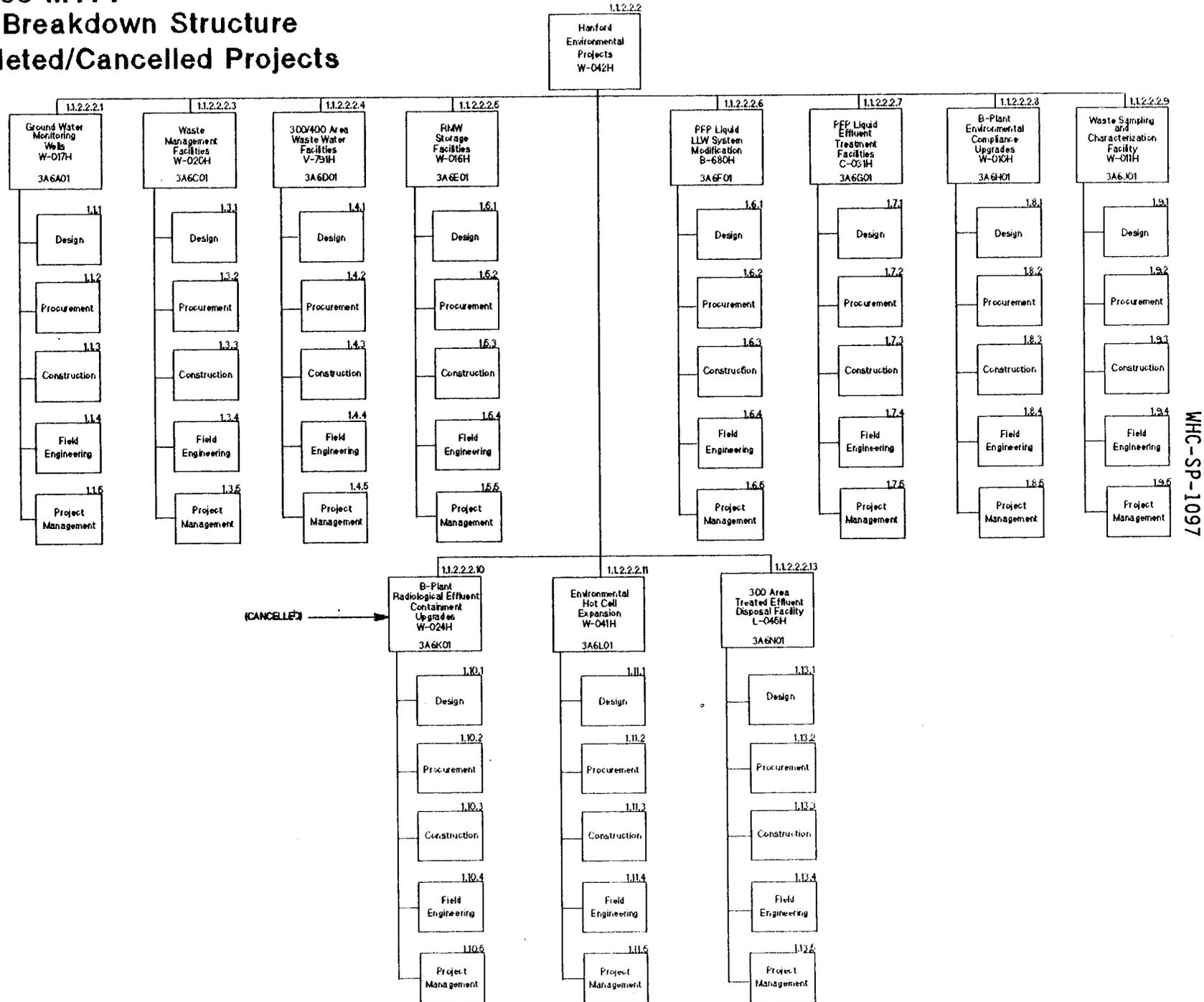
MHC-SP-1097

Hanford Environmental Compliance Project

FY 1995 MYPP

Work Breakdown Structure

Completed/Cancelled Projects



WMC-SP-1097

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT
 FY 1995 MYPP 1.2.2.2

2.A.2. WBS Dictionary		
WORK BREAKDOWN STRUCTURE DICTIONARY		
1 PROJECT TITLE/PARTICIPANT HEC Project/WHC	2 DATE 6-10-94	3 IDENTIFICATION NO.
4 WBS ELEMENT CODE A1.15	5 WBS ELEMENT TITLE Project Administration	
6 INDEX LINE NO.	7 REVISION NO AND AUTHORIZATION Rev. 0	8 DATE 6-10-94
9 APPROVED CHANGES		
10 SYSTEM DESIGN DESCRIPTION WHC-SD-W042H-PAP-002	11 BUDGET AND REPORTING NUMBER 39EW31302	
12 ELEMENT TASK DESCRIPTION A. COST CONTENT Hanford Environmental Compliance Project, 89-D-172, Major System Acquisition project/program organization management labor costs, material, purchased services, services from other Hanford contractors, internal company charges. B. TECHNICAL CONTENT/WORK STATEMENT TECHNICAL CONTENT Overall program management, tracking list, schedule, issues resolution, reporting, preparing budget requests, supporting project validation, authorization and implementations. WORK STATEMENT WBS 1.15.1 Design - Program management accountability, reporting, budgeting, schedules, funds management, change requests, program documentation per DOE 4700.1 and 4700.1a. ACTIVITIES SCHEDULED FOR FY - 95 Closeout HEC Project 9/95		

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT

FY 1995 MYPP1.2.2.2

2.A.2. WBS Dictionary		
WORK BREAKDOWN STRUCTURE DICTIONARY		
1 PROJECT TITLE/PARTICIPANT HEC Project/WHC	2 DATE 6-10-94	3 IDENTIFICATION NO.
4 WBS ELEMENT CODE A1.2	5 WBS ELEMENT TITLE Subproject W-007H, B Plant Process Condensate Treatment Facility	
6 INDEX LINE NO.	7 REVISION NO AND AUTHORIZATION Rev. 0	8 DATE 6-10-94
9 APPROVED CHANGES		
10 SYSTEM DESIGN DESCRIPTION SD-W007H-FDC-001 Rev. 2	11 BUDGET AND REPORTING NUMBER 39EW31302	
<p>12 ELEMENT TASK DESCRIPTION</p> <p>A. COST CONTENT</p> <p>Labor costs, purchased services, services from other Hanford contractors, internal company charges and procurements.</p> <p>B. TECHNICAL CONTENT/WORK STATEMENT</p> <p>TECHNICAL CONTENT</p> <p>Subproject W-007H BCP Treatment Facility - provides B-Plant BAT/AKART for effluents presently being disposed to the soil column. At completion of construction Subproject W-007H will tie into Subproject W-049H, "200 Area Treated Effluent Disposal Facility" in compliance with Tri-Party Agreement Milestone M-17-00 due 6/95.</p> <p>WORK STATEMENT</p> <p><u>WBS 1.2.1 Design</u> - Provides Definitive Design Specifications Acceptance Test Procedures, spare parts lists, design changes and as-builts.</p> <p><u>WBS 1.2.2 Procurement</u> - Procurement of long lead components to support BAT/AKART implementation.</p> <p><u>WBS 1.2.3 Construction</u> - Supports construction contract or onsite construction forces. Covers buried costs, construction management and construction turn-over.</p> <p><u>WBS 1.2.4 Field Engineering</u> - Supports quality assurance overviews, safety design reviews, construction inspections and reporting.</p> <p><u>WBS 1.2.5 Project Management</u> - Supports permits, safety documentation and project management.</p> <p>ACTIVITIES SCHEDULED FOR FY - 1995 Complete Construction 1/95 Complete Project 3/95</p>		

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT

FY 1995 MYPP1.2.2.2

2.A.2. WBS Dictionary		
WORK BREAKDOWN STRUCTURE DICTIONARY		
1 PROJECT TITLE/PARTICIPANT HEC Project/WHC	2 DATE 6-10-94	3 IDENTIFICATION NO.
4 WBS ELEMENT CODE A1.7	5 WBS ELEMENT TITLE Subproject C-031H, PFP Liquid Effluent Treatment Facility	
6 INDEX LINE NO.	7 REVISION NO AND AUTHORIZATION Rev. 0	8 DATE 6-10-94
9 APPROVED CHANGES		
10 SYSTEM DESIGN DESCRIPTION SD-C031H-FDC-001 Rev. 2		11 BUDGET AND REPORTING NUMBER 39EW31302
<p>12 ELEMENT TASK DESCRIPTION</p> <p>A. COST CONTENT</p> <p>Supports all costs related to Subproject C-031H, labor, purchased services, services from other Hanford contractors, internal company support charges, procurements and subproject close out documentation.</p> <p>B. TECHNICAL CONTENT/WORK STATEMENT</p> <p>TECHNICAL CONTENT Project Scope: Connect newly installed interconnecting transfer lines to 236-2, 234-52 waste systems and to existing non-RCRA compliance 241-2 vault tanks.</p> <p>WORK STATEMENT <u>WBS 1.7.1 Design</u> - Complete Definite Design Phases II and III, support final design estimate, approval and issuance. Supports design changes, code. Compliance assurance to DOE Order 6430.1a. <u>WBS 1.7.2 Procurement</u> - None <u>WBS 1.7.3 Construction</u> - Supports day to day management of onsite construction forces, construction and burial costs, construction procurements permits, and safety and quality assurance overviews. <u>WBS 1.7.4 Field Engineering</u> - Supports estimating design change support, surveillances, and construction documentation. <u>WBS 1.7.5 Project Management</u> - Supports NEPA and Safety Documentation and project management.</p> <p>ACTIVITIES SCHEDULED FOR FY - 1995</p> <p>Complete Project 10/94</p>		

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT
FY 1995 MYPP1.2.2.2

2.A.2. WBS Dictionary		
WORK BREAKDOWN STRUCTURE DICTIONARY		
1 PROJECT TITLE/PARTICIPANT HEC Project/WHC	2 DATE 6-10-94	3 IDENTIFICATION NO.
4 WBS ELEMENT CODE A1.12	5 WBS ELEMENT TITLE Subproject C-018H, 242-A Evaporator/PUREX Condensate Treatment Facility	
6 INDEX LINE NO.	7 REVISION NO AND AUTHORIZATION Rev. 0	8 DATE 6-10-94
9 APPROVED CHANGES		
10 SYSTEM DESIGN DESCRIPTION WHC-SD-C018H-ES-002 Rev. 0	11 BUDGET AND REPORTING NUMBER 39EW31302	
<p>12 ELEMENT TASK DESCRIPTION</p> <p>A. COST CONTENT</p> <p>Supports all costs related to Subproject C-018H, labor, purchased services, services from other Hanford Contractors, internal company support charges, procurements and subproject closeout documentation.</p> <p>B. TECHNICAL CONTENT/WORK STATEMENT</p> <p>TECHNICAL CONTENT Subproject C-018H provides a new effluent treatment and disposal facility for the 242A Evaporator/Crystallizer PC.</p> <p>WORK STATEMENT</p> <p><u>WBS 1.12.1 Design</u> - Provides Definitive Designs, Design Specifications, Acceptance Test Procedures, Design Changes, and As-builts.</p> <p><u>WBS 1.12.2 Procurement</u> - None</p> <p><u>WBS 1.12.3 Construction</u> - Supports continued management and placement of fixed price construction contracts, contractor overview and inspection, Safety and Quality Assurance documentation and all other construction labor and service costs. Supports construction of an Operations building.</p> <p><u>WBS 1.12.4 Field Engineering</u> - Supports estimating design change support, surveillances, and construction documentation.</p> <p><u>WBS 1.12.5 Project Management</u> - NEPA and Safety documentation and project management.</p> <p>ACTIVITIES SCHEDULED FOR FY - 1995 Complete Project 10/94</p>		

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT

FY 1995 MYPP1.2.2.2

2.A.2. WBS Dictionary		
WORK BREAKDOWN STRUCTURE DICTIONARY		
1 PROJECT TITLE/PARTICIPANT HEC Project/WHC	2 DATE 6-10-94	3 IDENTIFICATION NO.
4 WBS ELEMENT CODE A1.13	5 WBS ELEMENT TITLE Subproject L-045H, 300 Area Treated Effluent Disposal Facility	
6 INDEX LINE NO.	7 REVISION NO AND AUTHORIZATION Rev. 0	8 DATE 6-10-94
9 APPROVED CHANGES		
10 SYSTEM DESIGN DESCRIPTION WHC-SD-L045H-FDC-001 Rev. 1	11 BUDGET AND REPORTING NUMBER 39EW31302	
<p>12 ELEMENT TASK DESCRIPTION</p> <p>A. COST CONTENT</p> <p>Supports all costs related to Subproject L-045H, labor, purchased services, services from other Hanford contractors, internal company support charges, procurements and subproject closeout documentation.</p> <p>B. TECHNICAL CONTENT/WORK STATEMENT</p> <p>TECHNICAL CONTENT Subproject L-045H, "300 Area Treated Effluent Disposal Facility," provides a new facility for the collection, treatment, diversion, storage and disposal of process sewer effluent from the 300 Area which is currently discharged to the 300 Area process trenches. Supports Tri-Party Agreement milestone M-17-00 due 6/95.</p> <p>WORK STATEMENT <u>WBS 1.13.1 Design</u> - Completed 3/93. Design is performed as follows: - Onsite ECC - Utilities - Offsite fixed price - Utilities, Treatment Facilities and utilities. <u>WBS 1.13.2 Procurement</u> - None <u>WBS 1.13.3 Construction</u> - Supports continued management and placement of fixed price construction contracts, contractor overview and inspection, Safety and Quality assurance documentation and all other construction labor and service cost. <u>WBS 1.13.4 Field Engineering</u> - Supports estimating design change support, surveillances, and construction documentation. <u>WBS 1.13.5 Project Management</u> - NEPA, safety documentation and project management.</p> <p>ACTIVITIES SCHEDULED FOR FY - 1995</p> <p>Complete Project 12/94</p>		

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT

FY 1995 MYPP1.2.2.2

2.A.2. WBS Dictionary		
WORK BREAKDOWN STRUCTURE DICTIONARY		
1 PROJECT TITLE/PARTICIPANT HEC Project/WHC	2 DATE 6-10-94	3 IDENTIFICATION NO.
4 WBS ELEMENT CODE A1.14	5 WBS ELEMENT TITLE Subproject W-049H, 200 Area Treated Effluent Disposal Facility	
6 INDEX LINE NO.	7 REVISION NO AND AUTHORIZATION Rev. 0	8 DATE 6-10-94
9 APPROVED CHANGES		
10 SYSTEM DESIGN DESCRIPTION WHC-SD-W049H-FDC-001 Rev. 1	11 BUDGET AND REPORTING NUMBER 39EW31302	
12 ELEMENT TASK DESCRIPTION A. COST CONTENT Supports all costs related to Subproject W-049H, labor, purchased services, services from other Hanford contractors, internal company support charges, procurements and subproject closeout documentation.		
B. TECHNICAL CONTENT/WORK STATEMENT TECHNICAL CONTENT Subproject W-049H, "200 Area Treated Effluent Disposal Facility," provides a collection system and a disposal system for all Phase I and Selected Phase II liquid effluents generated at 200 Areas process facilities that are presently discharged to soil columns. This subproject supports Tri-Party Agreement milestone M-17-00 due 6/95.		
WORK STATEMENT <u>WBS 1.14.1 Design</u> - Provides Definitive Designs, Design Specifications, Acceptance Test Procedures, Design Changes, and As-builts. <u>WBS 1.14.2 Procurement</u> - None <u>WBS 1.14.3 Construction</u> - Supports continued management and placement of fixed price construction contracts, contractor overview and inspection, Safety and Quality assurance documentation and all other construction labor and service cost. <u>WBS 1.14.4 Field Engineering</u> - Supports estimating design change support, surveillances, and construction documentation. <u>WBS 1.14.5 Project Management</u> - NEPA, safety documentation and project management.		
ACTIVITIES SCHEDULED FOR FY - 1995 Complete Construction 12/94 Complete Project 6/95		

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT
FY 1995 MYPP1.2.2.2

2.A.2. WBS Dictionary		
WORK BREAKDOWN STRUCTURE DICTIONARY		
1 PROJECT TITLE/PARTICIPANT HEC Project/WHC	2 DATE 6-10-94	3 IDENTIFICATION NO.
4 WBS ELEMENT CODE A1.16	5 WBS ELEMENT TITLE Subproject W-291H, 200 Areas Effluent BAT/AKART Implementation	
6 INDEX LINE NO.	7 REVISION NO AND AUTHORIZATION Rev. 0	8 DATE 6-10-94
9 APPROVED CHANGES		
10 SYSTEM DESIGN DESCRIPTION WHC-SD-W291H-FDC-001 Rev. 1	11 BUDGET AND REPORTING NUMBER 39EW31302	
12 ELEMENT TASK DESCRIPTION A. COST CONTENT Supports all costs related to Subproject W-291H, labor, purchased services, services from other Hanford contractors, internal company support charges, procurements and subproject closeout documentation.		
B. TECHNICAL CONTENT/WORK STATEMENT TECHNICAL CONTENT Subproject W-291H, "200 Areas Effluent BAT/AKART Implementation." This subproject will provide BAT/AKART to effluent streams for four Hanford site facilities; T Plant, UO ₂ /U Plant, 2101-M Laboratory, and 284-W power plant. Effluent from these facilities will be discharged to the 200 Area Treated Effluent Disposal Facility (Subproject W-049H). This subproject supports Tri-Party Agreement milestone M-17-00 due 6/95.		
WORK STATEMENT WBS 1.16.1 Design - Provides Definitive Designs, Design Specifications, Acceptance Test Procedures, Design Changes, and As-builts. WBS 1.16.2 Procurement - None WBS 1.16.3 Construction - Supports continued management and placement of fixed price construction contracts, contractor overview and inspection, Safety and Quality assurance documentation and all other construction labor and service cost. WBS 1.16.4 Field Engineering - Supports estimating design change support, surveillances, and construction documentation. WBS 1.16.5 Project Management - NEPA, safety documentation and project management.		
ACTIVITIES SCHEDULED FOR FY - 1995 Complete Construction 4/95		

ENVIRONMENTAL COMPLIANCE PROJECT

FY 1995 MYPP

1.2.2.2

2.B. Work Breakdown Structure Index and Programmatic Responsibility Assignment Matrix

PROGRAM ELEMENT	ACTIVITY	COST ACCOUNT CAPITAL/EXPENSE	TITLE	RESPONSIBLE MANAGER	RESPONSIBLE ORGANIZATION/STATUS
1.2.2.2	1.2.2.2.2	3A6B01/1A6B01	Subproject W-007H, B Plant Process Condensate Treatment Facility	J. L. Monko	TWRS 7F160 CONSTRUCTION
1.2.2.2	1.2.2.2.9	3A6J01/1A6J01	Subproject W-011H, Waste Sampling and Characterization Facility	D. P. Hughes	TWRS 7FB80 COMPLETE
1.2.2.2	1.2.2.2.7	3A6G01/1A6G01	Subproject C-031H, PFP Liquid Effluent Treatment Facility	J. L. Monko	TWRS 7F160 COMPLETE
1.2.2.2	1.2.2.2.12	3A6M01/1A6M01	Subproject C-018H, 242-A Evaporator/PUREX Condensate Treatment facility	J. J. Noble	TWRS 7FB50 CONSTRUCTION
1.2.2.2	1.2.2.2.14	3A6P01/1A6P01	Subproject W-049H, 200 Area Treated Effluent Disposal Facility	D. P. Hughes	TWRS 7FB80 CONSTRUCTION
1.2.2.2	1.2.2.2.13	3A6N01/1A6N01	Subproject L-045H, 300 Area Treated Effluent Disposal Facility	D. S. Takasumi	TWRS 7FB20 COMPLETE
1.2.2.2	1.2.2.2.16	3A6R01/1A6R01	Subproject W-291H, 200 Areas Effluent BAT/AKART Implementation	D. P. Hughes	TWRS 7FB80 CONSTRUCTION
1.2.2.2	1.2.2.2.4	3A6D01/1A6D01	Subproject V-791H, 300/400 Area Waste Water Facilities	D. P. Hughes	TWRS 7FB80 COMPLETE
1.2.2.2	1.2.2.2.3	3A6C01/1A6C01	Subproject W-020H, Waste Management Facilities Cathodic Protection	G. B. Becker	TWRS 7FB60 COMPLETE
1.2.2.2	1.2.2.2.5	3A6E01/1A6E01	Subproject W-016H, Radioactive Mixed Waste Storage Facilities	S. R. Briggs	TWRS 7FD50 COMPLETE
1.2.2.2	1.2.2.2.1	3A6A01/1A6A01	Subproject W-017H, Groundwater Monitoring Well Systems	D. S. Takasumi	TWRS 7FB20 COMPLETE

MHC-SP-1097

1.2.2.2	1.2.2.2.8	3A6H01/1A6H01	Subproject W-010H, B Plant Environmental Compliance Upgrades	J. L. Monko	TWRS 7F160 COMPLETE
1.2.2.2	1.2.2.2.6	3A6F01/1A6F01	Subproject B-680H, PFP Liquid Low Level Waste System Modification	J. L. Monko	TWRS 7F160 COMPLETE
1.2.2.2	1.2.2.2.11	3A6L01/1A6L01	Subproject W-041H, Environmental Hot Cell Expansion	D. P. Hughes	TWRS 7FB80 COMPLETE
1.2.2.2	1.2.2.2.10	3A6K01/1A6K01	Subproject W-024H, B Plant Radiological/Effluent Containment Upgrades	J. L. Monko	TWRS 7F160 CANCELLED

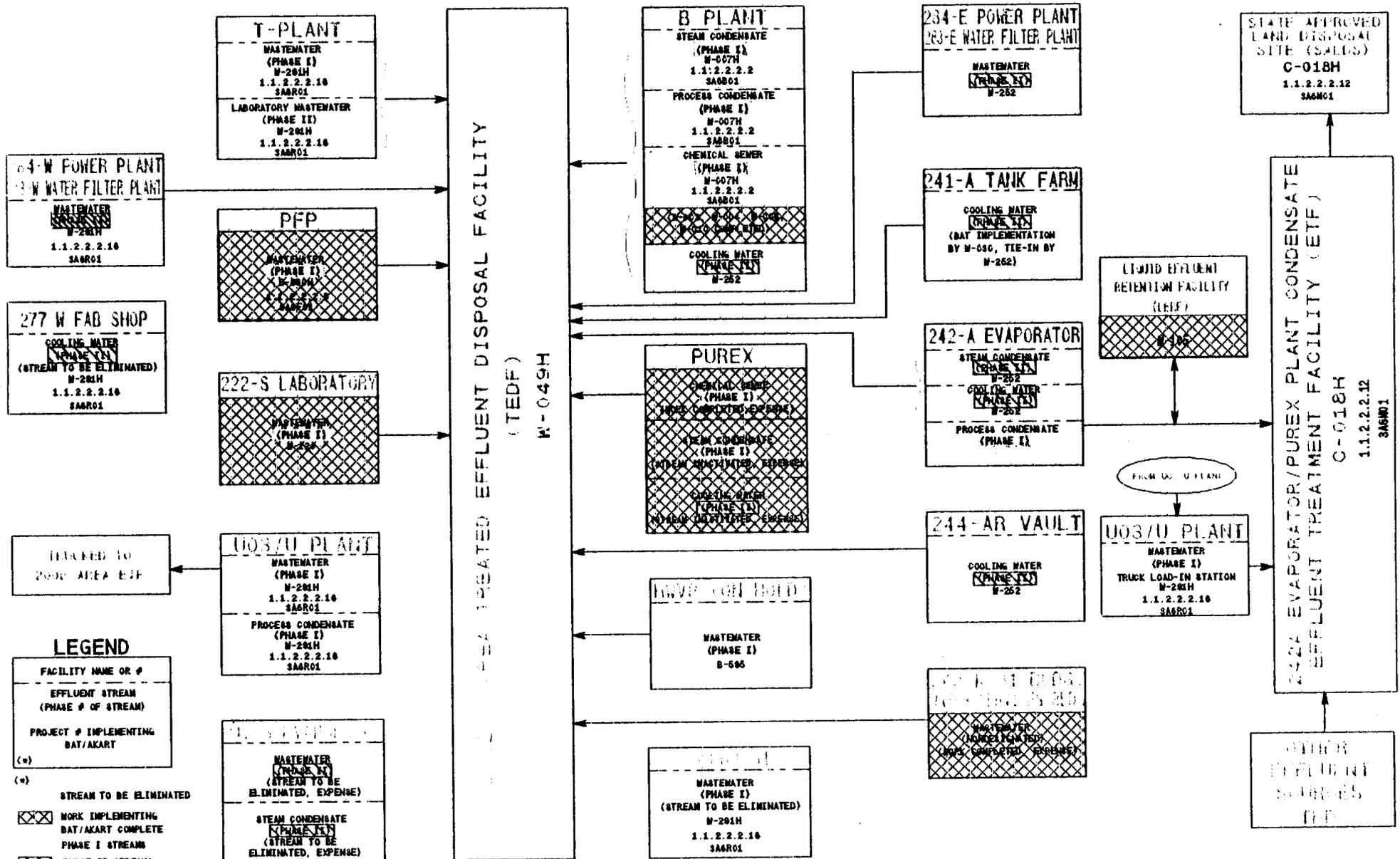
MHC-SP-1097

PROGRAM LOGIC DIAGRAM

SUMMARY OF 200 AREA PHASE I AND II EFFLUENT STREAMS

200 WEST AREA STREAMS

200 EAST AREA STREAMS

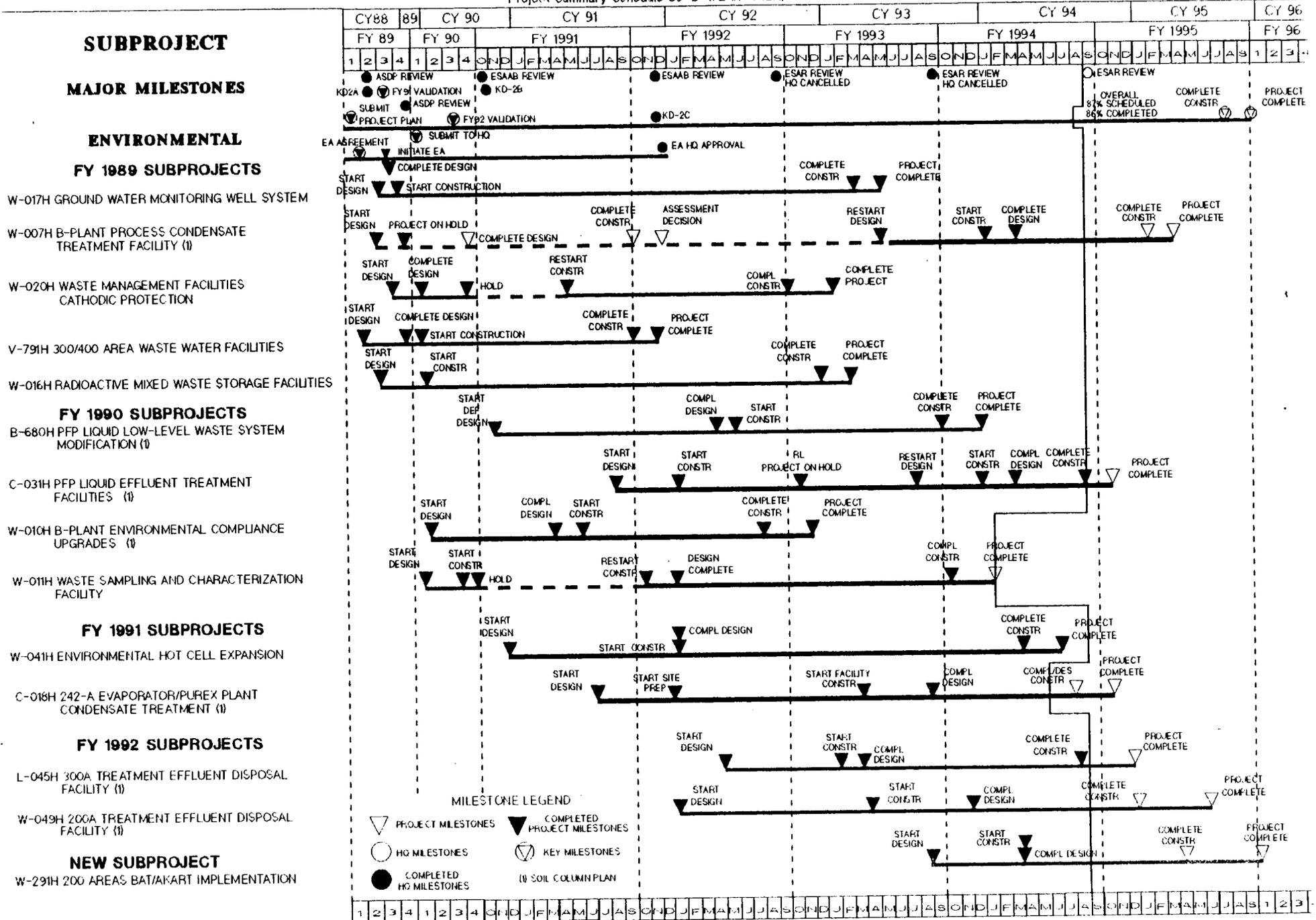


HANFORD ENVIRONMENTAL COMPLIANCE PROJECT

BASELINE SCHEDULE

AUGUST '94 Status

Project Summary Schedule 89-D-172 W-042H



PROGRAM PERFORMANCE BASELINE SCHEDULE (PPBS)
WESTINGHOUSE HANFORD COMPANY
FY95 WORK PLAN

Description	Start Finish		OCT 1994 NOV 1994 DEC 1994 JAN 1995 FEB 1995 MAR 1995 APR 1995 MAY 1995 JUN 1995 JUL 1995 AUG 1995 SEP 1995											
PROJECT W-042H	10/03/94 09/29/95	279000.00 \$	01OCT94											
HEC EXPENSE ADMINISTRATION	10/03/94 09/29/95	102400.00 \$												
PROJECT BUSINESS MANAGEMENT SUPPORT	10/03/94 09/15/95	18900.00 \$												
PRODUCTIVITY CHALLENGE	10/03/94 09/29/95	104000.00 \$												
GA/CSP	10/03/94 09/29/95	53700.00 \$												
SUBPROJECT W-007H	10/03/94 04/07/95	90000.00 \$												
OPERATIONAL IMPACTS	10/03/94 03/31/95	28000.00 \$												
PROJECT MGMT SUPPORT	10/03/94 03/31/95	8700.00 \$												
PROJECT BUSINESS MANAGEMENT SUPPORT	10/03/94 04/07/95	9900.00 \$												
SCHEDULING SUPPORT	10/03/94 03/31/95	13700.00 \$												
QA SUPPORT	10/03/94 03/31/95	17200.00 \$												
GA/CSP	10/03/94 03/31/95	12500.00 \$												
COMPLETE CONSTRUCTION	01/31/95 01/31/95		⊙											
PROJECT COMPLETE	03/31/95 03/31/95		⊙											

MHC-SP-1097

Description	Start Finish		OCT 1984 NOV 1984 DEC 1984 JAN 1985 FEB 1985 MAR 1985 APR 1985 MAY 1985 JUN 1985 JUL 1985 AUG 1985 SEP 1985											
			01OCT94											
SUBPROJECT C-018H	10/03/94 06/30/95	280000.00 \$												
PROJECT SUPPORT	10/03/94 02/28/95	115800.00 \$												
LEVEL III MANAGEMENT SUPPORT	10/03/94 02/22/95	8400.00 \$												
ENGINEERING SUPPORT	10/03/94 01/31/95	40700.00 \$												
QA SUPPORT	10/03/94 02/28/95	11900.00 \$												
PROJECT BUSINESS MGMT SUPPORT	10/03/94 02/28/95	10600.00 \$												
EVAPRTR CONDENSATE TRTMT PROJECT	10/03/94 12/30/94	50000.00 \$												
6A/CSP	10/03/94 02/28/95	42600.00 \$												
PROJECT COMPLETE	10/31/94 10/31/94													
TPA M-17-14	06/30/95 06/30/95													
SUBPROJECT L-045H	10/03/94 12/30/94	165000.00 \$												
HPT SUPPORT	10/03/94 12/30/94	17500.00 \$												
DOCUMENTATION	10/03/94 12/30/94	31000.00 \$												
PROJECT SUPPORT	10/03/94 12/30/94	68200.00 \$												
FINANCIAL SUPPORT	10/03/94 12/30/94	4000.00 \$												
QA SUPPORT	10/03/94 12/30/94	5300.00 \$												
CENTRAL ENGINEERING SUPPORT	10/03/94 12/30/94	7800.00 \$												

MHC-SP-1097

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT

FY 1995 MYPP

1.2.2.2

2.F. Milestone List					
Milestone Type*	Control Number	RL WBS	ADS NUMBER	Milestone Description	Milestone Completion Date
TPA, HQ, RL	HCP-94-001 thru HCP-94-018	1.2.2.2	2310-1	Fiscal Year 1994 Milestones**	FY 94
RL	HCP-95-019	1.2.2.2.2	2310-1	W-007H, Complete Construction	1/95
HQ	HCP-95-020	1.2.2.2.2	2310-1	W-007H, Complete Project	3/95
HQ	HCP-95-021	1.2.2.2.7	2310-1	C-031H, Complete Project	10/94
HQ	HCP-95-022	1.2.2.2.12	2310-1	C-018H, Complete Project	10/94
HQ	HCP-95-023	1.2.2.2.13	2310-1	L-045H, Complete Project	12/94
RL	HCP-95-024	1.2.2.2.14	2310-1	W-049H, Complete Construction	12/94
HQ	HCP-95-025	1.2.2.2.14	2310-1	W-049H, Complete Project	6/95
RL	HCP-95-026	1.2.2.2.16	2310-1	W-291H, Complete Construction	4/95
HQ	HCP-95-027	1.2.2.2.16	2310-1	W-291H, Complete Project	9/95
HQ	HCP-95-028	1.2.2.2.15	2310-1	HEC Project Closeout	9/95

* TPA, HQ, RL, and selected contractor milestone
 * On Tri-Party Agreement Milestones, also designate if they are HQ, RL
 ** For a detailed description of each of these milestones, see Hanford Environmental Compliance 1994 Fiscal Year Work Plan, Tab 3.A

2.F-1

MHC-SP-1097

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT
1.2.2.2

FY 1995 MYPP 2.G Milestone Description Sheets

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: W-007H, B Plant Process Condensate Treatment Facility		Date: 06/13/94	
Assigned To: HEC Project		CIN:	
Program WBS Designator: 1.2.2.2		Due Date: 01/95	
Control Number: HCP-95-019		Revision:	
MILESTONE TYPE: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> CNTR	DIVISION: <input type="checkbox"/> State <input type="checkbox"/> Federal <input checked="" type="checkbox"/> DOE <input type="checkbox"/> RCRA TPA Number -----	Deliverable: <input type="checkbox"/> Report <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Drawings <input type="checkbox"/> Other (Specify)	Address To: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> Other (Specify)
Milestone description: Complete Construction			
Description of what constitutes completion of this milestone: Construction is considered complete when Section II of the Official Acceptance of Construction (OAC) form is signed off and accepted by RL.			
Cost Account Manager: <i>L. P. Rippy</i>		Program/Project Mgr: <i>J. B. Beck</i>	
Date: <i>8/31/94</i>		Date: <i>8/31/94</i>	
Program Element Manager: <i>J. D. Munk</i>		DOE Monitor: <i>Beard</i>	
Date: <i>8/31/94</i>		Date: <i>9/21/94</i>	

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT
1.2.2.2

FY 1995 MYPP 2.G Milestone Description Sheets

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: W-007H, B Plant Process Condensate Treatment Facility		Date: 06/13/94	
Assigned To: HEC Project		CIN:	
Program WBS Designator: 1.2.2.2		Due Date: 03/95	
Control Number: HCP-95-020		Revision:	
MILESTONE TYPE: <input checked="" type="checkbox"/> DOE-HQ <input type="checkbox"/> DOE-RL <input type="checkbox"/> CNTR	DIVISION: <input type="checkbox"/> State <input type="checkbox"/> Federal <input checked="" type="checkbox"/> DOE <input type="checkbox"/> RCRA TPA Number -----	Deliverable: <input type="checkbox"/> Report <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Drawings <input checked="" type="checkbox"/> Other (Specify) OAC SECTION III AND KEY DECISION 4 APPROVED BY RL	Address To: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> Other (Specify)
Milestone description: Complete Project			
Description of what constitutes completion of this milestone: RL approval of Section III of the OAC and project closeout by issuance of the Construction Completion and Cost Closing Statement.			
Cost Account Manager: <i>J. L. Rippey</i>		Date: <i>8/31/94</i>	
Program/Project Mgr: <i>H. B. Becker</i>		Date: <i>8/31/94</i>	
Program Element Manager: <i>J. J. Mowbr</i>		Date: <i>8/31/94</i>	
DOE Monitor: <i>Abard</i>		Date: <i>9/21/94</i>	

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT
1.2.2.2

FY 1995 MYPP 2.G Milestone Description Sheets

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: C-031H, PFP Liquid Effluent Treatment Facility		Date: 06/13/94	
Assigned To: HEC-Project		CIN:	
Program WBS Designator: 1.2.2.2		Due Date: 10/94	
Control Number: HCP-95-021		Revision:	
MILESTONE TYPE: <input checked="" type="checkbox"/> DOE-HQ <input type="checkbox"/> DOE-RL <input type="checkbox"/> CNTR	DIVISION: <input type="checkbox"/> State <input type="checkbox"/> Federal <input checked="" type="checkbox"/> DOE <input type="checkbox"/> RCRA TPA Number -----	Deliverable: <input type="checkbox"/> Report <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Drawings <input checked="" type="checkbox"/> Other (Specify) OAC SECTION III AND KEY DECISION 4 APPROVED BY RL	Address To: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> Other (Specify)
Milestone description: Complete Project			
Description of what constitutes completion of this milestone: RL approval of Section III of the OAC and project closeout by issuance of the Construction Completion and Cost Closing Statement.			
Cost Account Manager: <i>J.L. Moore for D.R. SHANK</i>		Program/Project Mgr: <i>M.B. Becker</i>	
Program Element Manager: <i>J.L. Moore</i>		DOE Monitor: <i>Beard</i>	
Date: <i>8/31/94</i>		Date: <i>8/31/94</i>	
Date: <i>8/31/94</i>		Date: <i>9/21/94</i>	

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT
1.2.2.2

FY 1995 MYPP 2.G Milestone Description Sheets

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: C-018H, 242-A Evaporator/PUREX Condensate Treatment Facility		Date: 08/23/94	
Assigned To: HEC Project		CIN:	
Program WBS Designator: 1.2.2.2		Due Date: 10/94	
Control Number: HCP-95-022		Revision:	
MILESTONE TYPE: <input checked="" type="checkbox"/> DOE-HQ <input type="checkbox"/> DOE-RL <input type="checkbox"/> CNTR	DIVISION: <input type="checkbox"/> State <input type="checkbox"/> Federal <input checked="" type="checkbox"/> DOE <input type="checkbox"/> RCRA TPA Number -----	Deliverable: <input type="checkbox"/> Report <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Drawings <input checked="" type="checkbox"/> Other (Specify) OAC SECTION III AND KEY DECISION 4 APPROVED BY RL	Address To: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> Other (Specify)
Milestone description: Complete Project			
Description of what constitutes completion of this milestone: RL approval of Section III of the OAC and project closeout by issuance of the Construction Completion and Cost Closing Statement. Contractor performance issues on Subproject C-018H, "242-A Evaporator/PUREX Plant Condensate Treatment Facility," may cause delay in operational start-up. A change request has been issued to U.S. Department of Energy, Richland Operations Office (RL) requesting change to the construction completion milestone from 6/94 to 2/95 and project completion milestone from 10/94 to 6/95. RL is presently evaluating this change request.			
Cost Account Manager: <i>J. J. Noble</i>	Date: <i>8/31/94</i>	Program/Project Mgr: <i>A. S. Becker</i>	Date: <i>8/31/94</i>
Program Element Manager: <i>J. J. Noble</i>	Date: <i>8/31/94</i>	DOE Monitor: <i>Beard</i>	Date: <i>9/21/94</i>

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT
1.2.2.2

FY 1995 MYPP 2.G Milestone Description Sheets

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: L-045H, 300 Area Treated Effluent Disposal Facility		Date: 06/13/94	
Assigned To: HEC Project		CIN:	
Program WBS Designator: 1.2.2.2		Due Date: 12/94	
Control Number: HCP-95-023		Revision:	
MILESTONE TYPE: <input checked="" type="checkbox"/> DOE-HQ <input type="checkbox"/> DOE-RL <input type="checkbox"/> CNTR	DIVISION: <input type="checkbox"/> State <input type="checkbox"/> Federal <input checked="" type="checkbox"/> DOE <input type="checkbox"/> RCRA TPA Number -----	Deliverable: <input type="checkbox"/> Report <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Drawings <input checked="" type="checkbox"/> Other (Specify) OAC SECTION III AND KEY DECISION 4 APPROVED BY RL	Address To: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> Other (Specify)
Milestone description: Complete Project			
Description of what constitutes completion of this milestone: RL approval of Section III of the OAC and project closeout by issuance of the Construction Completion and Cost Closing Statement.			
Cost Account Manager: <i>AB Becker</i>	Date: <i>8/31/94</i>	Program/Project Mgr: <i>AB Becker</i>	Date: <i>8/31/94</i>
Program Element Manager: <i>AB Becker</i>	Date: <i>8/31/94</i>	DOE Monitor: <i>AB</i>	Date: <i>9/21/94</i>

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT
1.2.2.2

FY 1995 MYPP 2.G Milestone Description Sheets

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: W-049H, 200 Area Treated Effluent Disposal Facility		Date: 06/13/94	
Assigned To: HEC Project		CIN:	
Program WBS Designator: 1.2.2.2		Due Date: 12/94	
Control Number: HCP-95-024		Revision:	
MILESTONE TYPE: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> CNTR	DIVISION: <input type="checkbox"/> State <input type="checkbox"/> Federal <input checked="" type="checkbox"/> DOE <input type="checkbox"/> RCRA TPA Number -----	Deliverable: <input type="checkbox"/> Report <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Drawings <input type="checkbox"/> Other (Specify)	Address To: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> Other (Specify)
Milestone description: Complete Construction			
Description of what constitutes completion of this milestone: Construction is considered complete when Section II of the Official Acceptance of Construction (OAC) form is signed off and accepted by RL.			
Cost Account Manager: <i>M.C. Carrigan</i>		Date: 8-31-94	
Program Element Manager: <i>[Signature]</i>		Date: 8/31/94	
		Program/Project Mgr: <i>H.B. Becker</i>	
		Date: 8/31/94	
		DOE Monitor: <i>Beard</i>	
		Date: 9/21/94	

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT
1.2.2.2

FY 1995 MYPP 2.G Milestone Description Sheets

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: W-049H, 200 Area Treated Effluent Disposal Facility		Date: 06/13/94	
Assigned To: HEC Project		CIN:	
Program WBS Designator: 1.2.2.2		Due Date: 06/95	
Control Number: HCP-95-025		Revision:	
MILESTONE TYPE: <input checked="" type="checkbox"/> DOE-HQ <input type="checkbox"/> DOE-RL <input type="checkbox"/> CNTR	DIVISION: <input type="checkbox"/> State <input type="checkbox"/> Federal <input checked="" type="checkbox"/> DOE <input type="checkbox"/> RCRA TPA Number -----	Deliverable: <input type="checkbox"/> Report <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Drawings <input checked="" type="checkbox"/> Other (Specify) OAC SECTION III AND KEY DECISION 4 APPROVED BY RL	Address To: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> Other (Specify)
Milestone description: Complete Project			
Description of what constitutes completion of this milestone: RL approval of Section III of the OAC and project closeout by issuance of the Construction Completion and Cost Closing Statement.			
Cost Account Manager: <i>Mark C. Carrigan</i>	Date: <i>8-31-94</i>	Program/Project Mgr: <i>W. Becken</i>	Date: <i>8/31/94</i>
Program Element Manager: <i>[Signature]</i>	Date: <i>8/31/94</i>	DOE Monitor: <i>Beard</i>	Date: <i>9/21/94</i>

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT
1.2.2.2

FY 1995 MYPP 2.G Milestone Description Sheets

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: W-291H, 200 Areas Effluent BAT/AKART Implementation		Date: 06/13/94	
Assigned To: HEC Project		CIN:	
Program WBS Designator: 1.2.2.2		Due Date: 04/95	
Control Number: HCP-95-026		Revision:	
MILESTONE TYPE: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> CNTR	DIVISION: <input type="checkbox"/> State <input type="checkbox"/> Federal <input checked="" type="checkbox"/> DOE <input type="checkbox"/> RCRA TPA Number -----	Deliverable: <input type="checkbox"/> Report <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Drawings <input type="checkbox"/> Other (Specify)	Address To: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> Other (Specify)
Milestone description: Complete Construction			
Description of what constitutes completion of this milestone: Construction is considered complete when Section II of the Official Acceptance of Construction (OAC) form is signed off and accepted by RL.			
Cost Account Manager: <i>K. P. [Signature]</i>		Program/Project Mgr: <i>M. B. [Signature]</i>	
Date: <i>9/20/94</i>		Date: <i>9/20/94</i>	
Program Element Manager: <i>M. B. [Signature]</i>		DOE Monitor: <i>[Signature]</i>	
Date: <i>9/20/94</i>		Date: <i>9/21/94</i>	

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT
1.2.2.2

FY 1995 MYPP 2.G Milestone Description Sheets

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: W-291H, 200 Areas Effluent BAT/AKART Implementation		Date: 06/13/94	
Assigned To: HEC Project		CIN:	
Program WBS Designator: 1.2.2.2		Due Date: 09/95	
Control Number: HCP-95-027		Revision:	
MILESTONE TYPE: <input checked="" type="checkbox"/> DOE-HQ <input type="checkbox"/> DOE-RL <input type="checkbox"/> CNTR	DIVISION: <input type="checkbox"/> State <input type="checkbox"/> Federal <input checked="" type="checkbox"/> DOE <input type="checkbox"/> RCRA TPA Number _____	Deliverable: <input type="checkbox"/> Report <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Drawings <input checked="" type="checkbox"/> Other (Specify) OAC SECTION III AND KEY DECISION 4 APPROVED BY RL	Address To: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> Other (Specify)
Milestone description: Complete Project			
Description of what constitutes completion of this milestone: RL approval of Section III of the OAC and project closeout by issuance of the Construction Completion and Cost Closing Statement.			
Cost Account Manager: <i>Ken Pedersen</i>	Date: <i>9/20/94</i>	Program/Project Mgr: <i>MS Becker</i>	Date: <i>9/20/94</i>
Program Element Manager: <i>Dennis Hughes</i>	Date: <i>9/20/94</i>	DOE Monitor: <i>A. Beard</i>	Date: <i>9/21/94</i>

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT
1.2.2.2

FY 1995 MYPP 2.G Milestone Description Sheets

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: HEC Project Closeout		Date: 08/28/94	
Assigned To: HEC Project		CIN:	
Program WBS Designator: 1.2.2.2		Due Date: 09/95	
Control Number: HCP-95-028		Revision:	
MILESTONE TYPE: <input checked="" type="checkbox"/> DOE-HQ <input type="checkbox"/> DOE-RL <input type="checkbox"/> CNTR	DIVISION: <input type="checkbox"/> State <input type="checkbox"/> Federal <input checked="" type="checkbox"/> DOE <input type="checkbox"/> RCRA TPA Number -----	Deliverable: <input checked="" type="checkbox"/> Report <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Drawings <input type="checkbox"/> Other (Specify)	Address To: <input type="checkbox"/> DOE-HQ <input checked="" type="checkbox"/> DOE-RL <input type="checkbox"/> Other (Specify)
Milestone description: HEC Project Closeout			
Description of what constitutes completion of this milestone: Issuance of the Construction Completion and Cost Closing statement and approval of Key Decision 4, Start Operations/Productions.			
Cost Account Manager: <i>H.B. Becker</i>		Date: <i>8/31/94</i>	Program/Project Mgr: <i>H.B. Becker</i>
		Date: <i>8/31/94</i>	Date: <i>8/31/94</i>
Program Element Manager: <i>H.B. Becker</i>		Date: <i>8/31/94</i>	DOE Monitor: <i>Beard</i>
		Date: <i>8/31/94</i>	Date: <i>9/21/94</i>

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT

FY 1995 MYPP

1.2.2.2

2.I. Basis of Estimate				
Activity/Cost Acct		FY 1995	FY 1996	FY 1997
2310-1 HEC	Budget \$	1,400.0	0	0
	Fund \$	1,296.0	0	0
	FTE	25.5	0	0
<p style="text-align: center;">Basis of Estimate (Methodology of estimate and justification of scope)</p> <p>Other project costs are determined by an indepth analysis of project scope and schedule. Then resource needs are scheduled, estimated, and loaded. (Reference: Letter, L. C. Williams, RL, to President, WHC, "Guidance on Cost Estimates for FY 1995 Conceptual Design Reports," 9208047, dated November 16, 1992.)</p>				

2.I-1

WHC-SP-1097

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT

FY 1995 MYPP

1.2.2.2

Program:

Quantify waste by appropriate waste quantity (e.g. cubic meters, gallons, kilograms, etc.) for the EXECUTION YEAR - FY 1995 for the following WASTE TYPES for expected waste generation, receipt, transfer, and storage:

2.J. Waste Type Projections - FY 1995				
Waste Type	Waste Generated (waste unit, e.g., gallons)	Waste Received (waste unit, and name of program received from)	Waste Transferred (waste unit and name of program transferred from)	Waste Stored (waste unit)
HLW				
LLW (SOLID)				
LLW (LIQUID)				
LLMW (SOLID)				
LLMW (LIQUID)				
LLW (GTC3)				
TRU				
TRUM				
HAZARDOUS				
SANITARY (LANDFILL)				
SANITARY (LANDFILL-ASBESTOS)				

2.J-1

MHC-SP-1097

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT

FY 1995 MYPP

1.2.2.2

FOR THE EXECUTION YEAR - FY 1995 PROVIDE A BRIEF NARRATIVE FOR EACH OF THE FOLLOWING:

No waste generation is planned. The HEC Project completes in September 1995.

PLANS FOR WASTE STORAGE:

PLANS FOR INTERPROGRAM WASTE TRANSFER AND/OR DISPOSITION:

SUMMARY WASTE TYPE ISSUES:

2.3-2

WHC-SP-1097

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT

FY 1995 MYPP

1.2.2.2

Program:

Quantify waste by appropriate waste quantity (e.g. cubic meters, gallons, kilograms, etc.) for FY 1996 for the following WASTE TYPES for expected waste generation, receipt, transfer, and storage:

2.J. Waste Type Projections - FY 1996				
Waste Type	Waste Generated (waste unit, e.g., gallons)	Waste Received (waste unit, and name of program received from)	Waste Transferred (waste unit and name of program transferred from)	Waste Stored (waste unit)
HLW				
LLW (SOLID)				
LLW (LIQUID)				
LLMW (SOLID)				
LLMW (LIQUID)				
LLW (GTC3)				
TRU				
TRUM				
HAZARDOUS				
SANITARY (LANDFILL)				
SANITARY (LANDFILL-ASBESTOS)				

2.J-3

MHC-SP-1097

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT

FY 1995 MYPP

1.2.2.2

FOR THE YEAR FY 1996, PROVIDE A BRIEF NARRATIVE FOR EACH OF THE FOLLOWING:

PLANS FOR WASTE STORAGE:

No waste generation is planned. The HEC Project completes in September 1995.

PLANS FOR INTERPROGRAM WASTE TRANSFER AND/OR DISPOSITION:

SUMMARY WASTE TYPE ISSUES:

2.J-4

MHC-SP-1097

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT

FY 1995 MYPP

1.2.2.2

Program:

Quantify waste by appropriate waste quantity (e.g. cubic meters, gallons, kilograms, etc.) for FY 1997 for the following WASTE TYPES for expected waste generation, receipt, transfer, and storage:

2.J. Waste Type Projections - FY 1997				
Waste Type	Waste Generated (waste unit, e.g., gallons)	Waste Received (waste unit, and name of program received from)	Waste Transferred (waste unit and name of program transferred from)	Waste Stored (waste unit)
HLW				
LLW (SOLID)				
LLW (LIQUID)				
LLMW (SOLID)				
LLMW (LIQUID)				
LLW GTC3				
TRU				
TRUM				
HAZARDOUS				
SANITARY (LANDFILL)				
SANITARY (LANDFILL-ASBESTOS)				

2.J-5

WHC-SP-1097

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT

1.2.2.2

FY 1995 MYPP

FOR THE YEAR FY 1997, PROVIDE A BRIEF NARRATIVE FOR EACH OF THE FOLLOWING:

PLANS FOR WASTE STORAGE:

No waste generation is planned. The HEC Project completes in September 1995.

PLANS FOR INTERPROGRAM WASTE TRANSFER AND/OR DISPOSITION:

SUMMARY WASTE TYPE ISSUES:

Program:

2.3-6

WHC-SP-1097

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT

FY 1995 MYPP

1.2.2.2

Quantify waste by appropriate waste quantity (e.g. cubic meters, gallons, kilograms, etc.) for the years FY 1998 - 2025 for the following WASTE TYPES for expected waste generation, receipt, transfer, and storage:

2.J. Waste Type Projections - FY 1998 - 2025

Waste Type	Waste Generated (waste unit, e.g., gallons)	Waste Received (waste unit, and name of program received from)	Waste Transferred (waste unit and name of program transferred from)	Waste Stored (waste unit)
HLW				
LLW (SOLID)				
LLW (LIQUID)				
LLMW (SOLID)				
LLMW (LIQUID)				
LLW GTC3				
TRU				
TRUM				
HAZARDOUS				
SANITARY (LANDFILL)				
SANITARY (LANDFILL-ASBESTOS)				

2.J-7

WHC-SP-1097

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT

FY 1995 MYPP

1.2.2.2

Program Complete FY 95

2.K. Planned Staffing (Full Time Equivalent)			NOTE: Job Family Only After 1996				
JOB FAMILY							
Job category	1995	1996	1997	1998	1999	2000	2001
MANAGERS							
First line	.5						
General/executive							
Project/Program	3.0						
Other							
ENGINEERS							
Chemical							
Civil	4.0						
Computer							
Electrical							
Environmental	2.0						
Industrial							
Mechanical	2.0						
Nuclear							
Petroleum/Mining							
Plant	3.0						
Quality Control							
Safety							
Other							
SCIENTISTS							
Chemists							
Environmental							
Geologists							
Life							
Material							

2.K-1

MHC-SP-1097

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT

FY 1995 MYPP

1.2.2.2

2.K. Planned Staffing (Full Time Equivalent)		NOTE: Job Family Only After 1996					
Mathematicians							
Physicists							
Social							
Other							
ADMIN/OTHER PROFESSIONALS							
Accountant/auditor	2.5						
Architect							
Buyers/procurement							
Communications							
Compliance inspectors							
Computer System Anal							
Cost Est/planner/sch	1.0						
Health Physics							
Industrial Hygiene							
Lawyers							
Personnel/Labor Rela							
Physicians							
Physician Assis/Nurs							
Safeguard & Security							
Tech Writers & Edit							
Trainers							
Other							
JOB FAMILY							
Job category							
GEN ADM/SECRETARY/CLERK							
Admin Assistants	2.0						
Office Clerks (Gen)							
Office Clerks (Special)							

2.K-2

WHC-SP-1097

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT

FY 1995 MYPP

1.2.2.2

2.K. Planned Staffing (Full Time Equivalent)		NOTE: Job Family Only After 1996					
Secretaries	5.0						
Typist/Word Process							
Other							
TECHNICIANS							
Computer Oper/Coder							
Drafters							
Engrs/Tech							
Envir. Sci Technicians							
Health Phys. Technic.							
Indus. Saf/Health Tech							
Instru/Control Tech							
Lab. Technicians							
Media Technicians							
Survey/Map Tech							
Other	.5						
CRAFTS							
Carpenters							
Electricians							
HVAC							
Machinists							
Masons							
Millwrights							
Painters							
Plumbers/Pipefitters							
Struct/Metal Workers							
Vehic./Mob Equip Mech							
Welders							
Other							

2.K-3

MHC-SP-1097

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT

FY 1995 MYPP

1.2.2.2

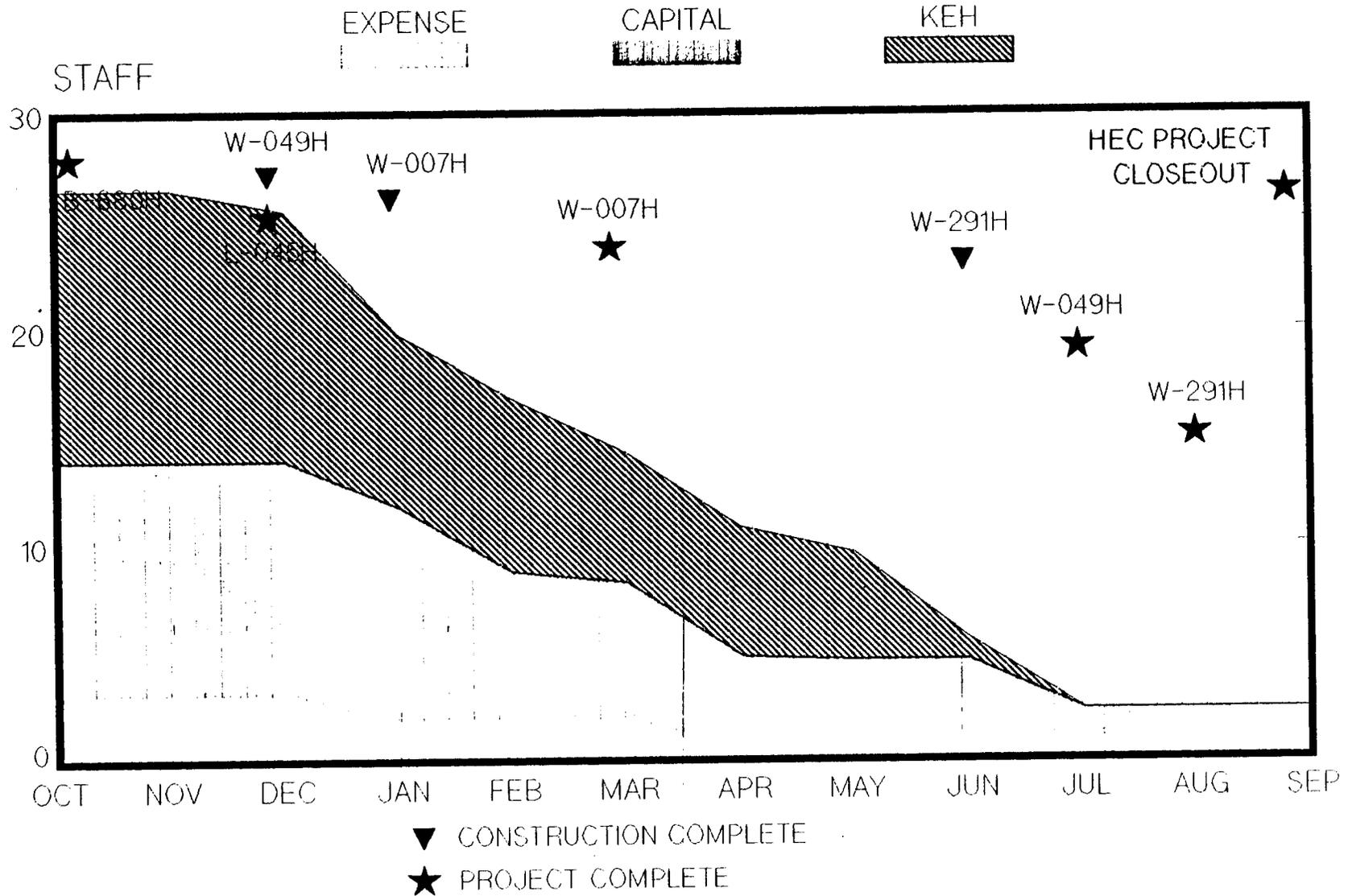
2.K. Planned Staffing (Full Time Equivalent)			NOTE: Job Family Only After 1996				
OPERATORS							
Chemical System							
Drillers							
Lt. Vehicle Drivers							
Material Moving Equip							
Nuclear Plant							
Utilities Waste Proces							
Other							
LABOR & GEN WORKERS							
Firefighters							
Food Service							
Hand/Help Lab Gen							
Hand/Help Lab Spec							
Janitors/Cleaners							
Laundry Workers							
Security Guards							
Other							

2.K-4

MHC-SP-1097

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT FY-95

STAFFING SUMMARY



MHC-SP-1097

Environmental Management (EM)

FY 1996 Five Year Plan

FY 1995/1996 Building Blocks Review

**Hanford Environmental compliance Project
89-D-172
(WBS 1.2.2.2)**

Major Assumptions - Planning Case

- **Hanford Environmental Compliance (HEC) subprojects will proceed/complete in accordance with approved Project Plan, scope/cost, and schedule.**
- **Required permits will be issued as needed to support construction and operation of new treatment facilities.**
- **Subprojects are prioritized as follows:**
 - **B2 - Supports Tri-Party Agreement Milestones**

Major Assumptions - Target Case

- HEC subprojects can be completed within reduced funding limits.
- Monthly review of operating expense funding will be made to monitor performance and trends.
- Midyear review will be held to identify if operating expense funds are adequate to complete the HEC Project by September 1995, if not a change request will be submitted.
- Subprojects are prioritized as follows:
 - B2 - Supports Tri-Party Agreement Milestones

FY 1995 Building Blocks (\$K) Planning Case

ADS	Description	RL Priority	TPA MS#	Fund Type	FY 1995	Cum FY 1995	Justification of Scope/Impact If Not Funded
2310-1	Subproject C-018H, Project Closeout	B2	M-17-00A	OE ⁽¹⁾	50.0	50.0	M-17-00A Cease Discharge Phase 1 Streams by 6/95
2310-1	Subproject L-045H, Project Closeout	B2	M-17-00A	OE ⁽¹⁾	225.0	275.0	M-17-00A Cease Discharge Phase 1 Streams by 6/95
2310-1	Subproject W-049H, Complete Construction Project Closeout	B2	M-17-00A	OE ⁽¹⁾	620.0	895.0	M-17-00A Cease Discharge Phase 1 Streams by 6/95

2.L-4

MHC-SP-1097

FY 1995 Building Blocks (\$K) Planning Case

ADS	Description	RL Priority	TPA MS#	Fund Type	FY 1995	Cum FY 1995	Justification of Scope/Impact If Not Funded
2310-1	Subproject W-291H, Complete Construction Project Closeout	B2	M-17-00A	OE ⁽¹⁾	325.0	1,220.0	M-17-00A Cease Discharge Phase 1 Streams by 6/95
2310-1	Subproject W-007H, Complete Construction Project Closeout	B2	M-17-00A	OE ⁽¹⁾	90.0	1,310.0	M-17-00A Cease Discharge Phase 1 Streams by 6/95
2310-1	Subproject C-031H, Project Closeout	B2	M-32-00	OE ⁽¹⁾	50.0	1,360.0	M-32-01B Required to Complete With RCRA Tank Regulations

2.L-5

MHC-SP-1097

FY 1995 Building Blocks (\$K) Planning Case

ADS	Description	RL Priority	TPA MS#	Fund Type	FY 1995	Cum FY 1995	Justification of Scope/Impact If Not Funded
2310-1	Overall HEC Project Admin.	B2		OE ⁽¹⁾	50.0	1,410.0	Required to provide appropriate Management of HEC subprojects, support closeout of HEC 9/95

(1) FY 1995 planning level remaining subprojects/project \$1,410.0

FY 1995 Building Blocks (\$K) Target Case

ADS	Description	RL Priority	TPA MS#	Fund Type	FY 1995	Cum FY 1995	Justification of Scope/Impact If Not Funded
2310-1	Subproject C-018H, Project Closeout	B2	M-17-00A	OE ⁽¹⁾	50.0	50.0	M-17-00A Cease Discharge Phase 1 Streams by 6/95
2310-1	Subproject L-045H, Project Closeout	B2	M-17-00A	OE ⁽¹⁾	225.0	275.0	M-17-00A Cease Discharge Phase 1 Streams by 6/95
2310-1	Subproject W-049H, Complete Construction Project Closeout	B2	M-17-00A	OE ⁽¹⁾	600.0	875.0	M-17-00A Cease Discharge Phase 1 Streams by 6/95

2.L-7

MHC-SP-1097

FY 1995 Building Blocks (\$K) Target Case

ADS	Description	RL Priority	TPA MS#	Fund Type	FY 1995	Cum FY 1995	Justification of Scope/Impact If Not Funded
2310-1	Subproject W-291H, Complete Construction Project Closeout	B2	M-17-00A	OE ⁽¹⁾	300.0	1,175.0	M-17-00A Cease Discharge Phase 1 Streams by 6/95
2310-1	Subproject W-007H, Complete Construction Project Closeout	B2	M-17-00A	OE ⁽¹⁾	60.0	1,235.0	M-17-00A Cease Discharge Phase 1 Streams by 6/95
2310-1	Subproject C-031H, Project Closeout	B2	M-32-00	OE ⁽¹⁾	25.0	1,260.0	M-32-01B Required to Complete With RCRA Tank Regulations

2.L-8

MHC-SP-1097

FY 1995 Building Blocks (\$K) Target Case

ADS	Description	RL Priority	TPA MS#	Fund Type	FY 1995	Cum FY 1995	Justification of Scope/Impact If Not Funded
2310-1	Overall HEC Project Admin.	B2		OE ⁽¹⁾	36.0	1,296.0	Required to provide appropriate Management of HEC subprojects, support closeout of HEC 9/95

(1) Further reductions will impact project completion RL, HQ, and TPA Milestones.

Key Planned Accomplishments in Target Case

- Complete construction remaining subprojects
- Complete/closeout HEC Project September 1995 within authorized TEC/TPC

Key Issues/Impacts:

At Target Level Funding:

- None

At Decrement Level Funding:

- Apply to FY 1996, the HEC Project is scheduled to be completed September 1995. No further funding required.

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT

1.2.2.2

FY 1995 MYPP

3.A.1 COST BASELINE SUMMARY/PROGRAM ELEMENT -- OPERATING EXPENSE

(\$ in 000's)

RL WBS	WBS TITLE	ADS NUMBER	ADS TITLE	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1.2.2.2	Hanford Environmental Compliance Project (HEC)	2310.1	HEC	211	206	229	149	133	92	89	77	79	51	42	42	1,400
			Productivity Commitment	(16)	(15)	(17)	(11)	(10)	(7)	(7)	(6)	(6)	(4)	(3)	(2)	(104)
			REVISED BASELINE	195	190	212	138	123	85	82	71	73	47	39	40	1,296

MHC-SP-1097

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT

1.2.2.2

FY 1995 MYPP

3.A.1.A COST BASELINE SUMMARY/PROGRAM ELEMENT – OPERATING EXPENSE

(\$ in 000's) OPERATING EXPENSE CARRYOVER SUBPROJECT C-018H

RL WBS	WBS TITLE	ADS NUMBER	ADS TITLE	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1.2.2.2	Hanford Environmental Compliance Project (HEC)	2310.1	Subproject C-018H	51	61	123	54	11	0	0	0	0	0	0	0	300

MHC-SP-1097

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT

Y 1995 FYWP

1.2.2.2

3.A.2 PROGRAM SUMMARY/COST ELEMENT - OPERATING EXPENSE

(\$ in 000'S)

COST ELEMENT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
0 - LABOR	95	92	104	73	64	40	39	32	30	20	15	18	620
1 - MATERIALS	6	8	8	1	0	1	0	0	0	0	0	0	23
2 - PURCHASED SERVICES	12	10	12	10	9	8	8	8	8	8	8	8	109
3 - OTHER CONTRACTORS	7	7	8	8	8	8	8	8	13	3	3	3	86
4 - SITE SERVICES	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - INTERNAL CHARGES	0	0	0	0	0	0	0	0	0	0	0	0	0
6 - IRM	12	13	12	3	3	3	3	3	3	3	3	0	247
7 - DEPARTMENTAL OVERHEAD	40	38	43	28	25	15	15	12	12	8	6	6	252
8 - G&A/CSP	40	39	44	28	24	16	15	13	13	8	6	6	252
TOTAL	212	207	231	151	133	91	88	76	79	50	42	42	1400

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT

1.2.2.2

FY 1995 MYPP

3.A.2 PROGRAM SUMMARY/COST ELEMENT – OPERATING EXPENSE

(\$ in 000's)

COST ELEMENT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
0 - LABOR	95	92	104	73	64	40	39	32	30	20	15	18	620
1 - MATERIALS	6	8	8	1	0	1	0	0	0	0	0	0	23
2 - PURCHASED SERVICES	2	0	2	0	0	0	0	0	0	0	0	0	4
3 - OTHER CONTRACTORS	7	7	8	8	8	8	8	8	13	3	3	3	86
4 - SITE SERVICES	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - INTERNAL CHARGES	0	0	0	0	0	0	0	0	0	0	0	0	0
6 - IRM	12	13	12	3	3	3	3	3	3	3	3	0	63
7 - DEPARTMENTAL OVERHEAD	40	38	43	28	25	15	15	12	12	8	6	7	247
8 - G&A/CSP	40	39	44	28	24	16	15	13	13	8	6	6	252
TOTAL	202	197	221	141	124	83	80	68	70	42	34	34	1,296

WHC-SP-1097

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT

1.2.2.2

FY 1995 MYPP

3.A.2.A PROGRAM SUMMARY/COST ELEMENT – OPERATING EXPENSE

(\$ in 000's) OPERATING EXPENSE CARRYOVER SUBPROJECT C-018H

COST ELEMENT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
0 - LABOR	15	12	13	15	6	0	0	0	0	0	0	0	61
1 - MATERIALS	4	7	5	4	0	0	0	0	0	0	0	0	20
2 - PURCHASED SERVICES	2	5	2	0	0	0	0	0	0	0	0	0	9
3 - OTHER CONTRACTORS	11	16	20	15	0	0	0	0	0	0	0	0	62
4 - SITE SERVICES	2	2	3	2	0	0	0	0	0	0	0	0	7
5 - INTERNAL CHARGES	0	0	50	0	0	0	0	0	0	0	0	0	50
6 - IRM	2	3	3	3	0	0	0	0	0	0	0	0	11
7 - DEPARTMENTAL OVERHEAD	7	6	6	7	3	0	0	0	0	0	0	0	28
8 - G&A/CSP	9	10	22	9	2	0	0	0	0	0	0	0	52
TOTAL	51	61	123	54	11	0	300						

WHC-SP-1097

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT 1.2.2.2

FY 1995 MYPP

3.A.5 COST BASELINE SUMMARY – LINE ITEM

(\$ in 000's)

RL WBS	WBS TITLE	ADS NUMBER	ADS TITLE	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1.2.2.2	Hanford Environmental Compliance Project (HEC)	2310-1	HEC	1,220	1,114	1,405	998	898	1,125	476	427	520	500	0	0	8,683

NOTE: No FY 95 Line Item funding requested.
Baseline consists of FY 94 Legal Encumbrences and approved Project Workscope.

MHC-SP-1097

HANFORD ENVIRONMENTAL COMPLIANCE PROJECT

1.2.2.2

FY 1995 MYPP

3.B PROGRAM FUNDING

(\$ in 000's)

RL WBS	WBS TITLE	ADS NUMBER	ADS TITLE	FUND TYPE	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1.2.2.2	Hanford Environmental Compliance Project (HEC)	2310-1	HEC	OE	211	206	229	149	133	92	89	77	79	51	42	42	1,400
			Productivity Commitment	OE	(16)	(15)	(17)	(11)	(10)	(7)	(7)	(6)	(6)	(4)	(3)	(2)	(104)
			TOTAL		195	191	212	138	123	85	82	71	73	47	39	40	1,296

NOTE: FY 95 Budget Authorization only. Does not include carryover workscope funding

WMC-SP-1097