WHC-SP-1104
Revision 1

Spent Nuclear Fuel Project

FY 1996 Multi-Year Program Plan
WBS #1.4.1

J. C. Fulton

Date Published
September 1995

Prepared for the U.S. Department of Energy
Assistant Secretary for Environmental Management

Westinghouse Hanford Company
P.O Box 1970
Richland, Washington

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RELEASE AUTHORIZATION

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This document was reviewed following the procedures described in WHC-CM-3-4 and is:

APPROVED FOR PUBLIC RELEASE

WHC Information Release Administration Specialist:

Kara M. Broz — September 21, 1995

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SPENT NUCLEAR FUEL PROJECT
WBS 1.4.1

FY 1996 WHC-SP-1104

APPROVAL PAGE

J. C. Fulton, Director
Spent Nuclear Fuel Project

9-25-95
Date

C. A. Hansen, Assistant Manager
for Waste Management
U.S. Department of Energy
Richland Operation Office

9/26/95
Date

CONDITIONS OF APPROVAL

* The RL approval is based on the condition that the following items are incorporated into the Program Plan, or satisfactorily responded to. The majority of these items are comments still open from the RL approval of the MYPP draft (reference letter 95-SFD-174, Elizabeth D. Sellers, Director Spent Nuclear Fuels Project Division, to President, Westinghouse Hanford Company, "RL Comments on the Spent Nuclear Fuels Project Multi-Year Program Plan", dated September 18, 1995). WHC shall submit the proposed disposition of these conditions by October 20, 1995. These conditions will be closed upon RL formal acceptance of the WHC proposed disposition.

1. Section 4.0, Execution Year, Table 4.2, "Program Performance Baseline Schedule" - Identify the WBS element for each activity at the eighth level of the WBS for the execution year. (RNW)

2. Section 2.0, Program Overview, 2nd paragraph - State whether the referenced proposed path forward schedule is the schedule contained in this MYPP? (OMH)

3. Page 2-3, Paragraph four - It would be helpful and consistent with the site wide systems engineering process to reference the Work Breakdown Structure that is discussed in this paragraph. For example, the paragraph could read as follows, "WBS X-X-X describes the movement of Spent Fuel that is to be moved from the 300 and 400 areas to an ISA in the 200 Area. Additionally, transfer of Spent Fuel from PUREX to the 200 ISA is detailed in WBS X-Y-Z. This would eventually lead to a highly integrated site wide WBS and integrated systems document. (RGH)

4. Page 2-5, Paragraph one, last sentence - This sentence is incorrect as written. It states, "In completing this mission, and while working with stakeholders . . . the project will protect the environment . . . while fully complying with all applicable Federal, State, Tribal (emphasis added) and local laws, orders, and regulations." The Native American Tribes have no regulatory authority over DOE or Contractor activities. It is suggested that the sentence be changed to read as follows, "In completing this mission, and while working with stakeholders . . . the Project will protect the environment . . . while fully complying with all applicable Federal, state, and local environmental laws and regulations, Department of Energy Orders and requirements. In addition, the Project recognizes that planned activities have the potential to impact treaty rights of the Native Americans. Therefore, the SNF Project will consult with tribes consistent with the policy established by the Secretary of the Department of Energy's regarding consultation with Native American Indians and Tribes. (RGH)

5. Section 2.1, Program Mission, 2nd paragraph, 2nd sentence - this does not add value to the MYPP goals and should be deleted. (OMH)

6. Section 2.2.2, Program Objectives, "The scope of the SNF Project for achieving these objectives include:" - The boundaries of the SNF Project are not sufficiently defined as written here. Use the approved scope

definition directly out of the PMP in place of these nine bullets. (OMH/RGH/RNW)

7. Page 2-8 - Planning Assumptions need to be more detailed and more in depth. The ones given are the big picture items, what about the assumptions made on the technical issues and on the processes and facilities? (GDT)

8. Page 3-40, Section 3.1.6, Waste Type Data, second dash under the first bullet ("Other FY 1996 LLW is housekeeping...") - The MYPP references a footnote document number 1. The title and reference number have been left out of the footnotes. (RGH)

9. The purpose of the WBS is to provide a breakdown of the final product into manageable portions. It is the expectation of RL that each level of the WBS will provide greater detail than the level above it.

   There is no breakdown, or further detail provided, from level two to level three of the Project Work Breakdown Structure, nor is there a breakdown or greater detail given for all but three of the WBS elements from level four to level five of the Work Breakdown Structure.

   The Work Breakdown Structure serves as the skeleton for all of the Project. It is the foundation that the entire Project rests. The Project baselines and systems are built around it. Therefore, justification for the repeated levels in the WBS as described in the above description needs to be documented. (RNW)

10. Provide a comparable level of detail below WBS element 1.4.1.04.02, .04, .05, and .06 as there is below WBS element 1.4.1.04.03. (KMS/CBL/OMH)

11. Deliverables must be specified for every WBS element and at every level. Roll the deliverables up from the level six WBS dictionaries, assure they are well defined (e.g. WBS element 1.4.1.01.01.01 deliverables are not clearly defined), and include in the MYPP level four WBS dictionaries. (GRS)

12. As a project and not a program, please justify why the functions under WBS element 1.4.1.02 are not under WBS element 1.4.1.01. (RGH/AJC/RNW)

13. All WBS sub-elements referring to regulatory activities, e.g., WBS 1.4.1.04.03.07: FRS Regulatory Compliance, should be moved to WBS 1.4.01.01.08: Regulatory Integration. Rationale: Regulatory Compliance WBS elements are found in some parts of the Project and not in others. An example is: there is no Regulatory Compliance WBS in the K Basins Maintenance and Operations yet we have sought and will continue to seek several NOC Air Permits from the State of Washington Department of Health. If we are truly projectized, all requirements, including regulatory requirements, should be established up front for the entire project, not for individual sub-elements. It is then the responsibility for Project Integration, WBS 1.4.1.01, to disseminate this to the remainder of the Project. On the other hand if Regulatory Compliance is included for day-to-day activities, all operational and subproject

activities should have sub-elements that identify a WBS specifically for day-to-day compliance activities. The Project WBS is not clear on either point. (RGH)

14. The work associated with WBS element 1.4.1.04.03, Fuel Removal Project, is being performed by the Transportation Group and should not be listed under K Basins. (DCB)

15. Page 3-14, Section A, Statement of Work, Work To Be Performed, Paragraph One - There is no indication where Hanford's spent nuclear fuel will interface with the national disposal repository program. Is it covered within the scope of this element of the WBS? If so include. If not please identify where it is covered. (RGH)

16. WBS elements 1.4.1.07.02.04.01.01 and 1.4.1.07.02.05.01.01 (Basis information for the MYPP) - Why is there activities pertaining to wet storage? Correct if this is incorrect. (KMS/CBL)

17. WBS element 1.4.1.07 - Transfers within the CSB are not addressed here. (KMS/CBL)

18. Each SNF Project subsystem/process (e.g. MCO, conditioning, CSB, etc.) design WBS should have milestones for identifying critical design issues and a schedule for issues resolution. This information will enable the Characterization subproject to focus testing activities toward solving design problems. This should be included in a Project issues document. (JSS)

19. Establish an RL milestone for the following:

    - Title: Complete Shipment of KW fuel and canister sludge to laboratories.

      Milestone Description: Complete the shipment of fuel and canister sludge samples from KW Basin to the laboratories for testing.

      Completion: All the fuel and sludge samples identified in the DQO documents are received at the laboratories.

      Due date: February 29, 1996

20. Establish a HQ milestone for the following:

    - Title: Complete Spent Nuclear Fuel Project.

      Milestone Description: Complete the scope of the Project as defined in the SNF Project Management Plan.

      Completion: The final portion of the Project is turned over to the responsible organization.

21. Milestone Control Number SO4-01-215, Complete Sludge Removal - Due date must be consistent with the requirements of the DNFSB. Once this is

established, the RL monitor must sign the Milestone Description Sheet. (OMH)

22. Program Master Baseline Schedule (PMBS) - The milestone dates shown on the PMBS don't agree in all cases with Table 3-8, the Milestone List. (GRS)

23. Program Master Baseline Schedule (PMBS) - State which are correct for the milestones, the early start dates or the early finish dates? There should be just one date for a milestone. (OMH)

24. Program Performance Baseline Schedule, sheet 4 & 5 - Schedules for several characterization activities are not accurate:

    - WBS element 1.4.1.02.01.04.01.02, Prepare Revised Characterization Plan -- This activity would be completed by 9/29/95.

    - WBS element 1.4.1.02.01.04.03.03, Conduct G/L Measurement -- This activity has been canceled.

    - WBS element 1.4.1.02.01.04.05.03, Conduct Ignition Testing 1st shipment -- This activity has been moved up, and will be completed by early 2nd quarter of FY96.

    - WBS element 1.4.1.02.01.04.05.12, Drying/Conditioning Testing 2nd Shipment -- This activity could start two month earlier.

    - WBS element 1.4.1.02.01.04.07.01, Sampling KW Canister Sludge/Send Labs -- 5/10/96 completion date is too late! Sludge and fuel sampling/shipment should take place in the same time frame - completion by 2nd quarter of FY96.

    - WBS element 1.4.1.02.01.04.07.02, Sampling KE canister Sludge/Send Labs -- 9/30/96 completion date is too late! Sludge and fuel sampling/shipment should occur in the same time frame - completion by 7/31/96.

    - WBS element 1.4.1.02.01.04.08.04, Determine KE floor/Pit Sludge Tank Acceptability -- 9/30/96 is too late. 6/30/96 is more realistic. (JSS)

25. Table 3-9 - The Project Data Sheet for Project W-441 (Stabilization Facility) shows a budget obligation of $3,100, $31,577, $19,190 for fiscal years 1996, 1997, and 1998 respectively. Table 3-9 in the MYPP shows very different numbers. This discrepancy needs to be resolved. (GDT)

26. Table 3-9 - Change column heading for FY96 funding from "Guidance" to "Planning Guidance". (DCB)

27. Table 3-11 - Please clarify why the Project is identifying 3.5 "food service workers" in 1996 and 1997. (KMS/CBL)

28. Table 3-10 - For K Basin Security, 19.8 FTEs are charged to the M&O budget. The Planned Staffing Profile shows 14.3 FTEs for Security. The difference of 5.5 FTEs is used to cover Hanford Security overhead. These 5.5 FTEs is excessive and needs to be revised. (www)

29. Table 3-10 - The Spent Nuclear Fuel Project Report from Primavera show that we have only 1.8 FTEs for K Basin Staff Training. These 1.8 FTEs are responsible to implement the Training Implementation Matrix (TIMs), establish a complete qualification and certification program for Operations and Maintenance, maintain the training records and begin to develop the training program for the removal fuel from K Basins and its conditioning prior to transit to the Canister Storage Building. Please review the adequacy of this estimate. (www)

30. Page 3-58, Table 3-10, Planned Staffing Profiles - Back of the envelope calculations show the ratio of WHC management to technical support (Engineers, Scientists, Administrative, and Clerical) to be 1 Manager to 5.1 staff for fiscal year 1996, and 1 Manager to 5.3 staff for fiscal year 1997 (craft personnel were not included in this ratio since they have their own managers and are provided through work orders). This ratio is unacceptable based on the Secretary of Energy's goal of 1 management person to every 12 staff. Please explain these numbers. (RGH)

31. Justify the 26.8 "Other" Engineers identified for 1996 in Table 3-10, Planned Staffing Profile, and the activities that they are associated. (KMS)

SPENT NUCLEAR FUEL PROJECT
WBS 1.4.1

FY 1996 WHC-SP-1104

U.S. DEPARTMENT OF ENERGY
RICHLAND OPERATIONS OFFICE
MANAGEMENT & OPERATING (M&O) CONTRACT WORK AUTHORIZATION

1. Work Authorization No. _____

2. Initiator: G. R. SCHROEDER (Name and Signature) SFD (Org.) 373-7837 (Telephone No.)

3. Project Title: Spent Nuclear Fuel Project

4. Program WBS No.: 1.4.1

5. Contractor: WHC (plus ICF-KH, PNL, BCSR as described in MYPP)

6. Authorized Performance Period From: 10/1/95 To: 2/29/96

7. Start Date: N/A Expected Completion Date: N/A
8. Description: LIST ALL ADSs: 4110-0 (Total FY '96 funding is $136.0M).

Limited authorization of the technical, schedule, and cost baseline documented in the execution year section of the fiscal year 1996 Program Plan for the authorized performance period subject to the attached restrictions.

Total WHC BCWS (authorized performance period) is $54,861K, Total fiscal year 1996 funds $136.0M

I authorize work against the FY 1996 MYPP with the exception of the attached items.

Concurrence	NAME	SIGNATURE	DATE
9. RL Project Manager:	E. D. Sellers	D Bryson for	9/26/95
10. WHC SNF Project Director:	J. C. Fulton		9-26-95
Approval			
11. RL AM-COR:	C. A. Hansen		9/26/95

Funds will be authorized via the FINPLAN in accordance with the authorized funding table.

FISCAL YEAR 1996 WORK AUTHORIZATION RESTRICTIONS

WHC shall not proceed with the following activities until such time that they are justified and well defined to DOE-RL. RL formal acceptance of the justification/definition of these activities will release the restriction.

1. Any Integrated Process Strategy activity unless it is clearly defined in the execution year section of the fiscal year 1996 Spent Nuclear Fuel Project Multi-Year Program Plan.

2. Activities HAWB 201 - 208, and 208M
   - Execute Conditioning Test Planning & Report
   - Prepare Hot Cell for Conditioning Test
   - Design, Fabricate, & Cold Test Experimental Fixture
   - Receive & Characterize Fuel & Sludge
   - Conduct Bench Scale Conditioning Tests
   - Analyze & Report conditioning Test Results
   - Dispose of Test Fuel & Sludge
   - Clean Out Hot Cell & Dispose of Test Fixture
   - M/S-I; Complete Clean Out of Test Cell

3. Three dimensional animation of the cask

4. WBS element task 1.4.1.05.01.03.01.04 (as identified in the Program Performance Baseline Schedule, MCO Additional Studies/Tests)

5. Any activity in WBS element 1.4.1.04.07, Deactivation Preparation.

6. WBS element tasks 1.4.1.01.01.01.02.01 and 1.4.1.01.01.01.02.02 (MYPP Phase 1, and MYPP Phase 2 respectively).

The following items pertain only to ATPO activities, which appear redundant:

7. Description of energetic chemical reactions under water (Activity ID number BCWC101)

8. Development of basis to evaluate MCO water loss (Activity ID number BCWC102)

9. Development of basis for technical safety requirements for wet fuel (Activity ID number BCWC104) (Work associated with dry fuel is allowable)

10. Sludge handling & disposition technology (Activity ID number BCWC205)

11. Issue final report on sludge behavior (WBS element task 1.4.1.02.01.03.02.05) (Activity ID number BCWC2059)

OTHER RESTRICTIONS OR REQUIREMENTS

1. DOE-RL shall approve all MYPP change orders associated with ATPO work scope, regardless of size.

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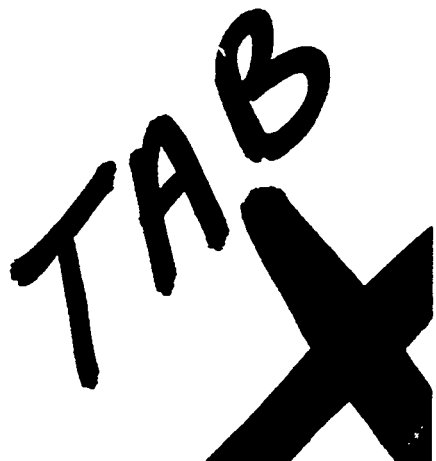
TAB
X

1.0 HANFORD STRATEGIC PLAN GOALS/MISSION PLAN

The Spent Nuclear Fuel (SNF) Project by achieving their vision, mission, and goals, will contribute to the success of the Hanford Strategic Plan. The SNF project is established to integrate the urgent risks associated with N-Reactor fuel currently stored in K Basins and to manage the transfer or disposition of other spent nuclear fuels currently stored on the Hanford Site.

The Hanford Strategic Plan[1] is a top level document that defines and integrates the U.S. Department of Energy (DOE) activities at the Hanford Site. This plan presents the Site's mission and vision for the future. Values and goals are described that focus program activities and efforts to achieve the Strategic Plan vision. The Hanford Site Mission is:

> "to clean up the site, provide scientific and technological excellence to meet global needs, and partner in the economic diversification of the region."

The vision for Hanford is:

> "Together, we are building a clean, accessible, and healthy environment which is part of a prospering and diversified community. We are reaching beyond our past achievements to continue a tradition of excellence in scientific and technological accomplishments. We are a resource that nations turn to for solutions to future challenges."

Comments and opinions of employees, customers, Native American tribal representatives, and other stakeholders have been valuable in setting the strategic direction. Success for the strategic direction requires continuous improvement and operating as partners to fulfill our Hanford mission.

The success of the Hanford mission will be the results of individual and collective efforts of stakeholders and employees. The efforts will be built upon fundamental values that guide all aspects of our work at Hanford. These values are:

SAFETY

> The safety and health of our workers and the public will not be compromised. We place a high priority on managing and reducing the risks in the workplace, to the public, and to the environment.

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[1] RL-D94-048, "Hanford Strategic Plan Supplement," DOE-RL, John D. Wagoner, issued September 1994.

RESULTS

We are committed to our environmental and scientific excellence. We will meet or exceed the needs and expectations of our customers. Our employees are encouraged to seek creative and innovative solutions and to continuously find ways to improve what we do.

TEAMWORK

We work as a team to accomplish our mission. We regard the public as essential members of the team and value and plan for their participation.

INTEGRITY

We conduct ourselves with the highest standards of professionalism and ethical behavior. We honor our commitments and comply with applicable laws and regulations.

These values are the foundation for achieving the Hanford Site Strategic Plan vision, mission, and goals. The SNF Project emulates these same values of Safety, Results, Teamwork, and Integrity in achieving our mission, vision, and goals.

The SNF Project vision, mission, and goals are in direct support of the Hanford Site Strategic Plan. Our baseline planning and strategy for achieving the baseline plan is in support of the nine Strategic Goals identified in the Strategic Plan. The nine strategic goals are included for edification, these goals follow:

Goal #1:	MANAGE AND REDUCE HAZARDS - We will reduce the known hazards in our system while improving the quality of our hazard assessments to guide future decisions on risk mitigation.
Goal #2:	ENHANCE WORKER SAFETY AND HEALTH - We will enhance the safety and health of Hanford workers.
Goal #3:	TRANSITION INFRASTRUCTURE - We will provide a safe infrastructure (e.g., utilities, transportation, general purpose facilities, or sitewide services) in a cost effective way that supports accomplishment of the Hanford mission and meets or exceeds appropriate standards.
Goal #4:	MANAGE CLEANUP AS A PROJECT - We will manage the Hanford cleanup as a project by consistently applying project management principles to reach the desired endstate as quickly and cost effectively as possible while considering risks and benefits to the public, the workers and the environment.
Goal #5:	ENHANCE WORK FORCE EFFECTIVENESS - We will have the right number of diverse people doing the right jobs in the right way, culminating in the successful execution of the mission.
Goal #6:	IMPROVE DECISION MAKING PROCESS - We will have effective decision making across the Hanford Site that balances decision quality, acceptance of the decision by the public, and timeliness of the decision.

Goal #7:	SCIENCE AND TECHNOLOGY - We will be leaders in providing science and technology that enhances Hanford's cleanup mission, improves U.S. competitiveness, and supports the regional, national, and international need to balance economic growth and environmental responsibility.
Goal #8:	BUILD PARTNERSHIPS - We will establish positive working relationships that will build confidence and enhance trust in Hanford.
Goal #9:	ECONOMIC TRANSITION - We will use the cleanup and science and technology mission elements to help the community establish a diversified and stable economic base over the long term. This will be accomplished through private sector participation in cleanup, creation of local technology and service companies, and effective use of assets no longer required by the federal government.

The SNF Project either directly or in-directly contributes to the successful implementation of Hanford Site Strategic Goals. The SNF Project is in direct response to Strategic Goal #1, Manage and Reduce Hazards. Strategy goal 1.1.3 to create a DOE spent fuel management program is complete. The strategies being developed to place fuel into interim dry storage will respond to strategy goal 1.4.1 by mitigating the risk associated with spent nuclear fuel in the K Basins. The SNF Project will contribute to fulfilling the achievement of Strategic Goal #1 Specific Data 1-C that states "All spent nuclear fuel will be safely stored in an interim location away from the Columbia River."

The SNF Project is committed to achieving our mission within the framework established in the Hanford Site Strategic Plan.

TAB X

2.0 PROGRAM OVERVIEW

The SNF Project, in conjunction with a DOE-commissioned Independent Review (ITA) team, evaluated alternatives for the expedited removal of spent nuclear fuel from the K Basins at Hanford. Based on these evaluations, a WHC Recommended Path Forward for the K Basins spent fuel was developed and proposed to DOE.[1]

The proposed path forward[1] schedule represented an aggressive, success-oriented approach that requires DOE and WHC actions to expedite required activities (e.g., project funding authorization, expedited procurement process, expedited regulatory and safety documentation).

In February of 1995, DOE approved the SNF Project "Path Forward" recommendation for resolution of the safety and environmental concerns associated with the deteriorating spent nuclear fuel stored in the Hanford Site's K Basins. The Path Forward recommendation involved an aggressive series of projects to construct and operate systems and facilities to safely retrieve, package, transport, condition, and store K Basins fuel and sludge. Along with approval of the Path Forward,[2] DOE assigned an accelerated schedule goal to start fuel removal from the K Basins by December 1997,[3] to complete fuel conditioning for dry storage as soon as feasible, and to implement those accelerations within current budget projections. This Multi-Year Program Plan represents activities to achieve the acceleration of the Path Forward.

In response to DOE's directed goals, WHC is refining the accelerated Path Forward and is preparing detailed schedules and resource estimates for an integrated process strategy (IPS) that establishes the technical framework to construct facilities and implement processes compatible with these goals. Two major innovations are proposed. First is a method of repackaging the fuel into more efficient storage baskets, achieving an approximate 50% reduction in storage space and containers for the fuel. Repackaging would facilitate removal of fuel corrosion products and other sludges. Second is the proposed application of a two-step fuel drying and conditioning process that achieves the earliest possible removal of free water from the repackaged fuel. This would mitigate further fuel degradation and improve the safety basis, with minimal impact to the schedule for K Basin fuel removal. The IPS will be incorporated into the multi-year baseline through the change control process when this strategy is fully developed.

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[1] WHC-EP-0830, "Hanford Spent Nuclear Fuel Project Recommended Path Forward," Volumes I and II, Revision 0, October 1994.

[2] Memorandum, J. E. Lytle to T. P. Grumbly, "Approval of Path Forward for the N-Reactor Spent Nuclear Fuel Interim Storage," dated November 9, 1994.

[3] Letter, C. A. Hansen to A. L. Trego, "Approval of Spent Nuclear Fuel (SNF) Path Forward Recommendation," dated February 14, 1995.

The SNF Project was formed in February 1994 to manage the transition of DOE irradiated fuel inventories at the Hanford Site into safe, low-cost, interim storage. The Project priority is to expeditiously remove approximately 2,100 metric tonnes uranium (MTU) of irradiated fuel (primarily N Reactor fuel), from two fuel storage basins located in the 100K Area.

The 100K Area fuel storage basins are unlined concrete pools located approximately 1/4 mile from the banks of the Columbia River. The basins were constructed in the early 1950s with a 20-year design life. The basins were originally built to support K Reactor operation. The K West Reactor was shut down in 1970 and K East Reactor in 1971. The two basins remained inactive until they were modified and reactivated to supplement storage for N Reactor fuel. The K East (KE) Basin was put into service in 1975 and the K West (KW) Basin in 1981. The KE Basin periodically has had a history of leaking. The original utility infrastructure, installed in the 1950s, continues to support the K Basins today.

N Reactor fuel is zirconium clad metallic uranium which is currently stored under water. Metallic uranium, when exposed to water, corrodes to oxide. The zirconium cladding on much of the N Reactor fuel is not intact, having been damaged during discharge from the reactor. Damaged cladding exposes the uranium metal to water and results in corroding fuel. Corrosion products from the fuel have resulted in contamination of the KE Basin water and have generated a large volume of sludge in the basin. N Reactor fuel is stored in canisters which rest on the floors of the KE and KW Basins. There are almost 7,400 canisters of fuel stored at 100K with approximately 3,800 stored in the KW Basin and approximately 3,600 stored in the KE Basin. Fuel stored in the KE Basin is stored in open-topped canisters. Fuel stored in the KW Basin is stored in closed-topped canisters.

The SNF Project has developed, and is continuing to refine, a path forward for handling and storing the K Basin fuel in a new staging/storage facility (Canister Storage Building (CSB)) on the 200 Area plateau. The plan involves placing the fuel into an overpack container (Multi-Canister Overpack (MCO)) in the K Basins, conditioning of the fuel to dry it, transportation to the CSB, and preparing the MCOs for interim dry storage in the new CSB facility. Characterization of the fuel is an integral part of the path forward. Hot lab testing was initiated in late spring of 1995, following shipment of three fuel elements from the KW Basin to the 300 Area Hot Lab. Characterization activities associated with both the stored fuel and basin sludge will be required. Turnover to Facility Transition Projects will occur following the removal of fuel, sludge, and debris from the K Basins. Currently, this turnover is anticipated to be during fiscal year (FY) 2001.

Contingent on the Spent Nuclear Fuel Environmental Impact Statement Record of Decision, the CSB will be located in the 200 East Area of Hanford. The current plan and schedule are based on the use of a facility which was already under construction to support the Hanford Waste Vitrification Project. During FY 1996 design will be complete for this facility and construction activities, including concrete and structural steel work, will begin. Procurement will be initiated for all long-lead material. Closure of this facility will follow

transfer of the stored fuel materials to final disposition. It is anticipated that interim storage operations of the CSB may continue for 40 years. Currently, the 40-year interim storage operations is not within the scope for the SNF Project.

Fuel conditioning will be accomplished either at the 100K Area, adjacent to the CSB, or in a two-step process using both locations. During FY 1996, process parameters to support design will be defined, the design contract will be awarded, and design activities will be initiated. Closure of the conditioning facility will follow completion of the fuel conditioning activity. The current schedule identifies a two-year window for fuel conditioning beginning in June of FY 1998. Following closure, the conditioning facility will be turned over to Facility Transition Projects.

SNF Project activities include infrastructure improvements at the K Basins; fuel and sludge characterization; fuel handling, packaging, transportation, and storage; sludge waste disposition, handling, packaging, transportation, and storage; CSB design; NEPA and regulatory approach; fuel conditioning; debris and waste removal to support fuel handling; and basin water disposition following removal of fuel, sludge, and debris from the basins to support turnover of K Basins to Facility Transition Projects. Each of these activities are aggressive challenges for project personnel and will be managed effectively to achieve the accelerated schedule.

The SNF Project also has the responsibility of ensuring that the safe, low-cost, interim storage of other Hanford Site spent nuclear fuel is attained. This inventory includes fuel materials associated with the Fast Flux Testing Facility (FFTF) operation currently stored in the 308 Building and at FFTF; Shippingport Pressurized Water Reactor (PWR) Core 2 fuel currently stored at T Plant; LAMPRE fuel stored at the Plutonium Finishing Plant (PFP); N Reactor fuel from PUREX and N Basin; fuel assemblies, fuel pins, and fuel pieces associated with hot cell work currently stored in the 300 Area; and Oregon State University spent nuclear fuel currently stored in drums in the 200 West Area Low Level Burial Ground.

In the near term, 300 Area and 400 Area fuels will be consolidated in the 400 Area Interim Storage Area (ISA) outside of FFTF. This action supports facility deactivation missions and addresses vulnerability corrective actions. PUREX fuel will be transferred to K Basins in FY 1995 and complete in October of FY 1996 any fuel recovered during the N Basin clean-out will be transferred in FY 1996.

Once the CSB in the 200 East Area has been completed, a 200 Area ISA will be constructed adjacent to it. Following completion, all of the other Hanford Site spent nuclear fuel will be consolidated on the 200 Area ISA. This includes the material stored at the 400 Area ISA, the Shippingport fuel stored at T Plant, and the Oregon State University fuel stored in the 200 West burial ground. Consolidation of these fuels will minimize storage costs and support deactivation of storage facilities. Some materials will remain at PFP for

security reasons. Management of these fuel materials will be consistent with the Record of Decision (ROD) for the Spent Nuclear Fuel and Idaho National Engineering Laboratory Programmatic Environmental Impact Statement.

The technical, schedule, and cost baseline represented in this Multi-Year Program Plan (Program Plan) does not represent a business-as-usual approach to managing a DOE project. Innovative, success-oriented project activities form the basis for planning documentation and the successful completion of project objectives.

The following sections identify the project strategy for achieving interim disposition of DOE-owned spent nuclear fuel at the Hanford Site:

- Section 2.0 of this document will provide information on the SNF Project mission, project objectives, planning assumptions, and constraints.
- Section 3.0 documents the technical, schedule, and cost baseline and provides information on how systems engineering analysis and methodology has formed the basis for all planning activities within the SNF Project.
- Section 4.0 provides the performance measurement technical, schedule, and cost baseline for FY 1996.

The FY 1996 performance measurement baseline will provide necessary information to obtain DOE work authorization. The FY 1996 baseline will be managed utilizing the change control process. Schedule and cost performance reporting will be provided monthly and is further detailed in Section 3.4 of this Program Plan. Signing of this Program Plan and subsequent work authorization acknowledges the acceptance for resource basis of estimates, planning assumptions, and objectives documented in activity planning and estimate work sheets.

TAB X

2.1 PROGRAM MISSION

The primary mission of the SNF Project is to provide expeditious removal and safe storage of spent nuclear fuel at the K Basins. The SNF Project will accomplish this within the customer's budget, schedule, and requirements. The Project will safely, reliably, and efficiently manage, condition, transport, and store, all DOE-owned spent nuclear fuel on the Hanford Site. In completing this mission, and while working with stakeholders and tribal nations, the Project will protect the environment, Hanford Site workers, and the public while fully complying with all applicable Federal, State, Tribal, and local laws, orders, and regulations.

The SNF Project vision is to be a world class project organization, dedicated to completing the mission expeditiously. The Project is viewed by the customer and stakeholders as a cost-effective team that implements sound technical solutions.

TAB X

2.2 PROGRAM STRATEGY

The SNF Project strategy was developed in response to vulnerabilities identified for DOE-owned spent nuclear fuel. The overall strategy was developed consistent with the Secretary of Energy directive to initiate, define, and ensure resolution of all associated issues for fuel storage, fuel characterization, conditioning, interim storage, and preparation for final disposition.[4] The overall SNF Project strategy culminates the desire to lower environmental and safety risks associated with storage of fuel at the K Basins. These concerns to lower risk have been voiced by the Hanford Advisory Board, Tribal Nations, Defense Nuclear Facility Safety Board, and others. The SNF project strategy responds to these following concerns:

- The urgent need to move spent fuel from the K Basins and away from the Columbia River (Hanford Strategic Plan Goal #1, Specific Data 1-C).
- The need to achieve stable, low-cost interim storage for Hanford spent fuel and sludge.
- The need to keep costs within an acceptable range.

A number of actions are required to facilitate the rapid response to resolving spent nuclear fuel vulnerabilities. These actions involve expedited funding authorization, an expedited procurement process, elimination of institutional barriers or delays, and establishment of delegations and organizational structures that facilitate productivity, timely decision making, and elimination of unnecessary oversight.

2.2.1 Technical Functions and Requirements

In March of 1995 the SNF Project developed and issued the technical baseline document[5]. This baseline document identifies SNF Project functions and requirements consistent with the Hanford Site Functions and Requirements documentation. The document contains the SNF Project top-level functions and requirements, functional interfaces, and product definitions. The top-level SNF functions and requirements (F&R) serve as the foundation for development of F&Rs for sub-projects within the Spent Nuclear Fuel Project. Systems engineering analysis documentation provides the traceability from the Hanford Site F&Rs to the sub-project F&Rs. Sub-project F&Rs are used for developing design and performance specifications for achieving the SNF Project mission, goals, and objectives. Specific products associated with the SNF Project F&Rs and correlation between systems analysis product tree definition and the SNF Project Work Breakdown Structure (WBS) are detailed in Section 3.1.1 of this Program Plan. The SNF Project has provided traceability from Hanford Site

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[4] Plan of Action to Resolve Spent Nuclear Fuel Vulnerabilities, U.S. Department of Energy, April 1994.

[5] WHC-SD-SNF-SD-003, "Spent Nuclear Fuels Project Technical Baseline Document," Westinghouse Hanford Company, March 1995.

Systems Analysis into Specific SNF Project System F&Rs. These F&Rs provide the framework to further develop products and systems to accomplish the SNF Project mission. System products directly correlate with the SNF Project WBS. Systems engineering analysis documentation and the SNF Project WBS establish the technical baseline for the SNF Project. The WBS, found in Section 3.1.2, creates the foundation for development of the SNF Project schedule and cost baseline. Detailed product trees and associated WBS can be located in Section 3.1.1 of this Program Plan.

2.2.2 Project Objectives

SNF Project objectives follow:

- Lower safety and environmental risks associated with storage of spent nuclear fuel at the K Basins.
- Provide safe economic, and environmentally sound storage for all of the Hanford Sites spent nuclear fuel prior to final disposition of the material.
- Provide for the rapid removal of spent fuel, debris, and sludge from K Basin pools and relocate them away from the Columbia River.
- Placement of the spent fuel in safe, economic, and environmentally sound dry storage until final disposition of the spent fuel is determined.

The scope of the SNF Project for achieving these objectives include:

- Correcting existing K Basin physical plant deficiencies and maintaining a safe working environment during removal of spent nuclear fuel, and sludge from the K Basin pools.
- Providing characterization of the K Basin spent nuclear fuel, and sludge.
- Designing a fuel conditioning process.
- Designing, constructing, and operating the CSB and a Conditioning Facility until spent nuclear fuel is stored in a dry configuration.
- Providing and expediting a safe, environmentally sound method to retrieve, package, and transport K Basin fuel to the CSB, where it will be of less risk to workers, the public, and the environment.
- Providing interim storage for other Hanford Site spent nuclear fuel until it is transferred off site or on-site disposition is determined.
- Providing turnover of the CSB 40 year interim storage operations.

- Transferring other Hanford Site spent nuclear fuel off site for disposition.

- Turnover of the K Basins, associated fuel removal equipment, and the conditioning physical systems to Facility Transition Projects.

2.2.3 Planning Assumptions

To achieve the aggressive schedule to commence removing fuel from the K Basins by December 1997 will require that business-as-usual methodologies are challenged and innovative work around strategies are implemented. Key administrative and management assumptions utilized during the development of this technical, schedule, and cost baseline follow:

- DOE, in conjunction with WHC, will provide for an expedited capital project authorization process.

- The necessary capital and expense funds will be provided to support the expedited schedule.

- The safety and environmental documentation, reviews, and authorizations will be expedited in a fashion that does not delay equipment and facility design and construction schedule.

- WHC and DOE will provide for an expedited operational readiness review process.

- Expedited approval to requirements associated with DOE Orders will be provided.

- Approval of innovative and expedited contracting/acquisition strategies which maximize the use of commercial nuclear standardized designs, experience, and infrastructure associated with spent fuel storage and transportation will be utilized.

- The Resource Conservation and Recovery Act requirements and the State of Washington Dangerous Waste Regulations do not apply to the spent nuclear fuel management activities conducted at the K Basins, the Canister Storage Building, and the Conditioning Facility.

- It is anticipated that sludge will be designated as dangerous waste and will be shipped to the Tank Waste Remediation System.

Work scope associated with four major activities must proceed in parallel and be complete prior to removal of fuel from the K Basins. These major activities follow:

- MCO design, fabrication, and procurement.

- K Basins modifications required to retrieve fuel, package the fuel, and handle the MCO/cask systems.

- Transportation system design, fabrication, and operation.
- CSB design, construction, and operation.

2.2.4 Project Constraints

To commence removal of spent nuclear fuel from the K Basins by December 1997 requires that critical project constraints be minimized and close management of the activities associated with project constraints be accomplished. Work around solutions will be provided if constraining items begin to jeopardize schedule performance. SNF Project level constraints follow:

- Schedule activity durations in critical path areas have been established at the shortest reasonable durations. These schedule activities will need to be monitored closely with recovery actions identified at the earliest possible time.
- Critical path items for starting the removal include a fully operational transportation system and the completion of the CSB. Any delay in the availability of funds, final design, or completion of construction could jeopardize schedule performance and cause delays in fuel load out. Activities associated with this work scope will need to be monitored and managed closely.
- Operational Readiness Reviews (ORR), if required, for the transportation system, K Basins, and CSB could occur within the same time frame. Completing three ORRs in a short period of time will stretch limited resources and increase risk of attaining the schedule.
- Overlap of the design and construction phases for the CSB will be required and will need approval to deviate from the normal timing established in DOE Order 4700.1.
- Completion of a Draft Environmental Impact Statement (EIS) including issuance of an acceptable Record of Decision (ROD).


TAB
X

3.0 PROGRAM BASELINES

This section of the Program Plan documents the technical basis for achieving the Project mission and objectives. The technical baseline summarized in the Program Plan is further described by presenting a multi-year integrated resource loaded schedule depicting the sequential activities required to achieve the technical requirements. Resources identified in the schedule are then represented as a cost profile to establish the required budget to achieve the schedule and technical basis. In any well managed project, appropriate performance measures are established for the technical, schedule, and cost baselines and analysis provided for cost and schedule variances. Detailed documentation is provided in this section that further describes the SNF Project baseline.

The SNF Project has provided traceability for their planning basis. The Hanford Strategic Plan provides the overarching vision, mission, and goals for clean-up of the Hanford Site. Site Systems Engineering provides Functions and Requirements for achieving the Strategic Plan Goals. The SNF Project Systems Engineering further develops the Site F&Rs into specific functions, requirements, and products relating to the SNF Project. The functions and associated products form the foundation for developing a product oriented Work Breakdown Structure. Responsible organizations are then assigned to achieve the products incorporated in the WBS. Resource loaded integrated schedules are prepared establishing the sequence of how the products will be generated. The required cost profile is established through the time-phasing of the schedule activities. The result of this planning process is the SNF Project integrated technical, schedule, and cost baseline. Figure 3-1 provides a process flow for development of the baseline.

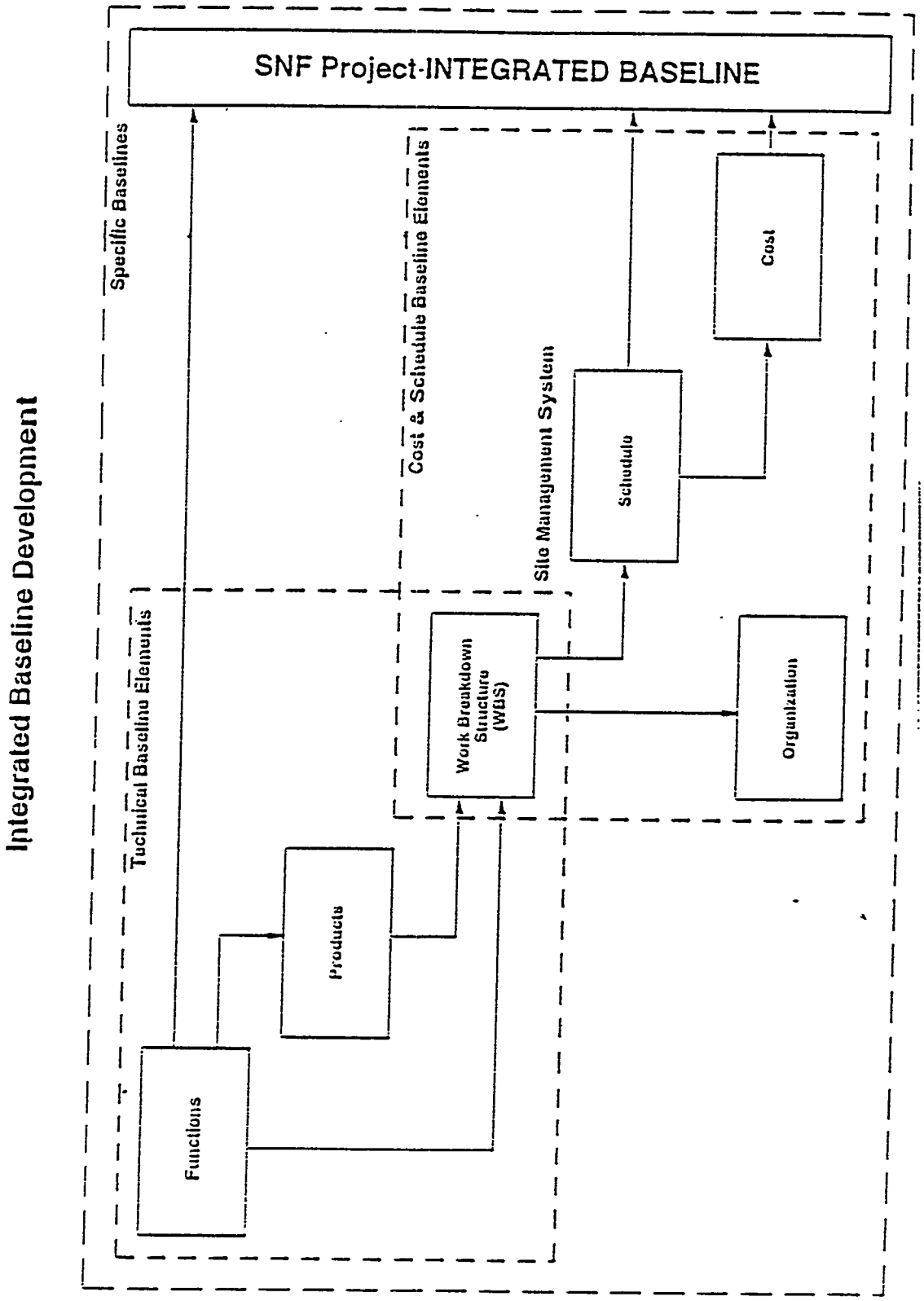
Section 3.1 provides the Technical Requirements baseline. Presented in this section are the systems engineering analysis technical products structure, the WBS with associated dictionary sheets, a WBS Responsibility Assignment Matrix, technology requirements, and waste type information.

Section 3.2 provides the schedule baseline and presents the multi-year Project summary schedule and associated milestones.

Section 3.3 provides the multi-year resource cost profiles, the basis for resource estimates, and projected staffing required. Staffing projections are depicted by Hanford standard job categories.

Section 3.4 provides the evaluation process and reporting of performance measurement incentives.

FIGURE 3-1


SNF Project-INTEGRATED BASELINE
Specific Baselines
Cost & Schedule Baseline Elements
Site Management System
Technical Baseline Elements
Cost
Schedule
Work Breakdown Structure (WBS)
Organization
Products
Functions
Integrated Baseline Development

The technical, schedule, and cost baseline, consistent with the SNF Project charter and scope, are represented in this baseline documentation. Activities that are beyond the scope of the SNF Project are continued CSB operations after K Basins fuel is conditioned and placed in 40-year dry interim storage. Deactivation activities associated with physical systems are to be transferred to Facility Transition Projects. Physical systems include K Basins, equipment associated with the conditioning process, and fuel removal systems. Another aspect of spent nuclear fuel life cycle costs are preparation of the fuel for final disposition.

For purposes of the Baseline Environmental Management Report (BEMR), life cycle cost estimates and schedule will be provided for 40-year interim storage operations and the remaining other Hanford Fuel activities beyond FY 2002. Deactivation of physical systems transferred to Facility Transition Projects will not be provided in this Program Plan. Final disposition for fuel has not yet been determined and the scope is unknown, but for the purposes of the BEMR an estimate is provided. Key assumptions used in developing the life cycle estimates follow:

1. K Basin will be turned over to Facilities Transition for deactivation in Fiscal Year (FY) 2001.

2. The conditioning facility has a three year operating life (FY 1998-2000) and will be turned over to Facilities Transition for deactivation in FY 2001.

3. Disposition of the other Hanford Site fuel will be completed in FY 2012.

4. The Canister Storage Building has a 40 year operating life (FY 1997-2037). The facility will be transferred to Facilities Transition for deactivation in FY 2038.

5. The fuel will be shipped to a national repository over a two-year period (FY 2036-2037.

Table 3-1 depicts the life cycle cost analysis for Hanford Spent Nuclear Fuel.

Other Hanford fuel activities (WBS 1.4.1.09) are currently scheduled to be complete in FY 2012. The anticipated costs for the completion of the work between FY 2003 and FY 2012 is $15M. Continued interim storage operations is not within the scope of the SNF Project. Turnover of the CSB to a yet to be determined organization for 40-year operations is anticipated for the first quarter of FY 2001. Current planning estimates depict CSB operations to be steady state at approximately $2M per year by FY 2001. Assuming a 40-year operations cycle, the estimated life cycle cost would be approximately $80M. Detailed supporting schedule and resource basis of estimates are not available for 40-year interim storage operations.

TABLE 3 - 1

Life Cycle Cost Analysis
($ in millions)

Program Element	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003-2010	FY 2011-2020	FY 2021-2040	Total
Project Integration	$1.6	8.7	9.0	10.4	10.1	9.8	8.1	4.4					$62.1
System Integration	2.4	1.5	15.2	11.0	8.7	2.5	1.5						42.8
K-Basin Maintenance & Ops	46.4	44.3	29.6	29.5	29.4	29.2	30.3	5.2					243.9
K-Basin Material Removal/ Clean-up	2.7	20.2	25.2	28.9	16.5	19.3	20.4	0.7					133.9
MCO Acquisition		1.7	2.8	6.1	28.3	10.9							49.8
Cask/Transportation System		1.4	7.4	14.8	1.7								25.3
Canister Storage Building	1.1	4.7	40.6	44.8	10.7	9.5	5.8	2.7	2.0	16.0	20.0	34.0	191.9
Conditioning Facility	0.1	3.6	4.9	29.2	17.2	18.9	12.4						86.3
Other Hanford Fuel Retrieval Processing & Storage		1.0	1.3	0.3	0.3	3.4	3.1	4.8	2.0	14.3	0.9		31.4
DOE		0.5											0.5
Transfer to National Repository												250.0	250.0
Total Spent Fuel Project	$54.3	87.6	136.0	175.0	122.9	103.5	81.6	17.8	4.0	30.3	20.9	284.0	$1,117.9

TAB X

3.1 TECHNICAL REQUIREMENTS BASELINE

This section of the Program Plan provides traceability of the technical requirements for accomplishing the SNF Project mission, goals, and objectives. The technical baseline is established utilizing a systematic approach for achieving Hanford Site Strategic Plan Goals. Systems engineering analysis at the Hanford Site level provides overarching functions and requirements that are further detailed by the SNF Project. The SNF Project systems engineering analysis provides baseline functions and requirements and associated products. Summary information of the products can be located in Section 3.1.1 of this Program Plan. The product trees form the basis in developing the SNF Project WBS, presented in Section 3.1.2, and are directly relatable to the WBS. Project level WBS dictionary sheets describing the scope of work for the associated WBS element are located in Section 3.1.3. A WBS Responsibility Assignment Matrix, Section 3.1.4, identifies the manager and organization responsible for performing the WBS scope of work. Technology requirements and waste type data are documented as Sections 3.1.5 and 3.1.6, respectively.

3.1.1 Technical Product Structure Tree

The SNF Project product definitions and Products Breakdown Structure (PBS) are based on system engineering analysis for the SNF Project. A complete PBS is provided in the SNF Project Technical Baseline Document[1]. The PBS forms the basis for development of the SNF Project WBS. Utilizing system engineering analysis to develop the WBS ensures that activities associated with completion of the SNF Project mission is traceable from WBS sub-elements to the Hanford Site systems engineering methodologies and Hanford Strategic Plan.

The WBS is a product-oriented hierarchy composed of hardware, software, services, data, and facilities. The WBS represents and defines products to be developed or delivered that are required to accomplish SNF Project functions and requirements. The PBS defines products (i.e. Systems) required to perform and accomplish the project functions. These products define the essential capabilities and individual systems needed to perform the function. There is a direct correlation between the PBS, or product trees, and the WBS.

The SNF Project product tree, presented as Figure 3-2, is based on SNF Project functional analysis documented in the SNF Project Technical Baseline Document. The SNF Project WBS is derived from that product tree.

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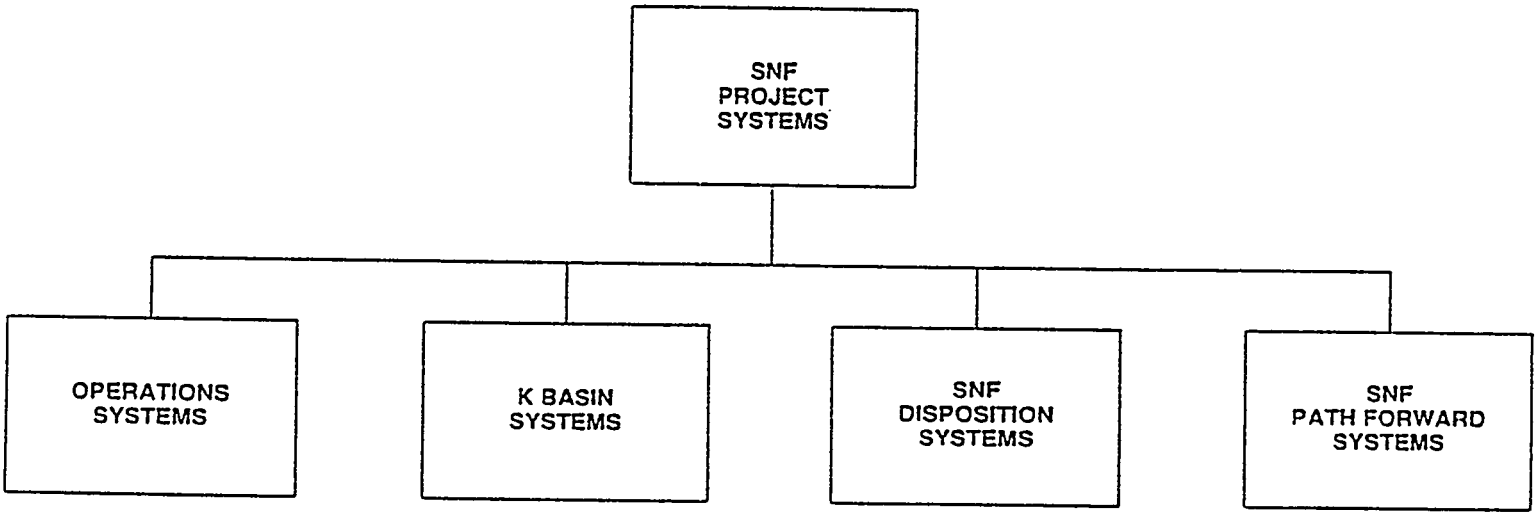
[1] WHC-SD-SNF-SD-003, "Spent Nuclear Fuels Project Technical Baseline Document," Westinghouse Hanford Company, March 1995.

Figure 3-3 provides the correlation between the SNF product tree and the WBS. There are two notable discrepancies between the product tree and WBS. The function associated with final disposition of SNF and deactivation of the K Basins does not have a corresponding WBS element. These two functions currently are out of scope and charter of the SNF Project (WBS 1.4.1). The function of Project Management contains the requirement for Project Integration and Systems Integration. The WBS provides for these two functions as separate WBS elements.

FIGURE 3-2

SNFP PROJECT PRODUCT TREE



SNFP PRODUCT TREE

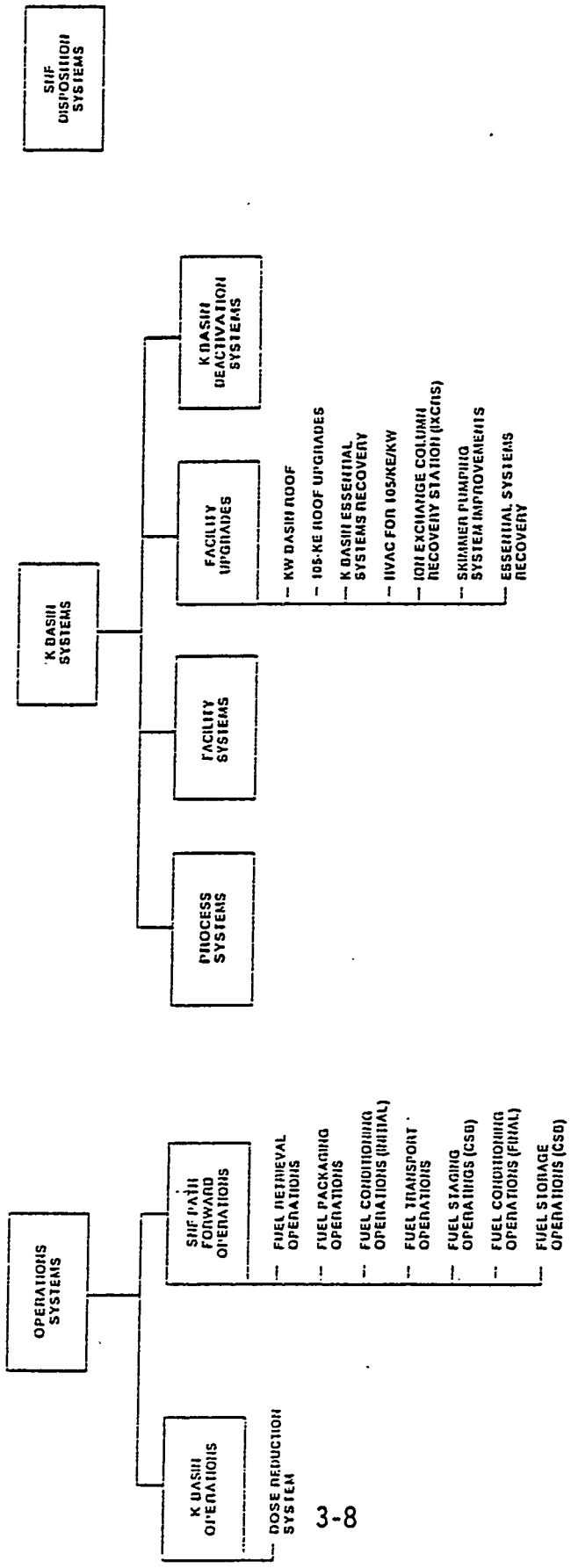


FIGURE 3-2

SNFP PRODUCT TREE

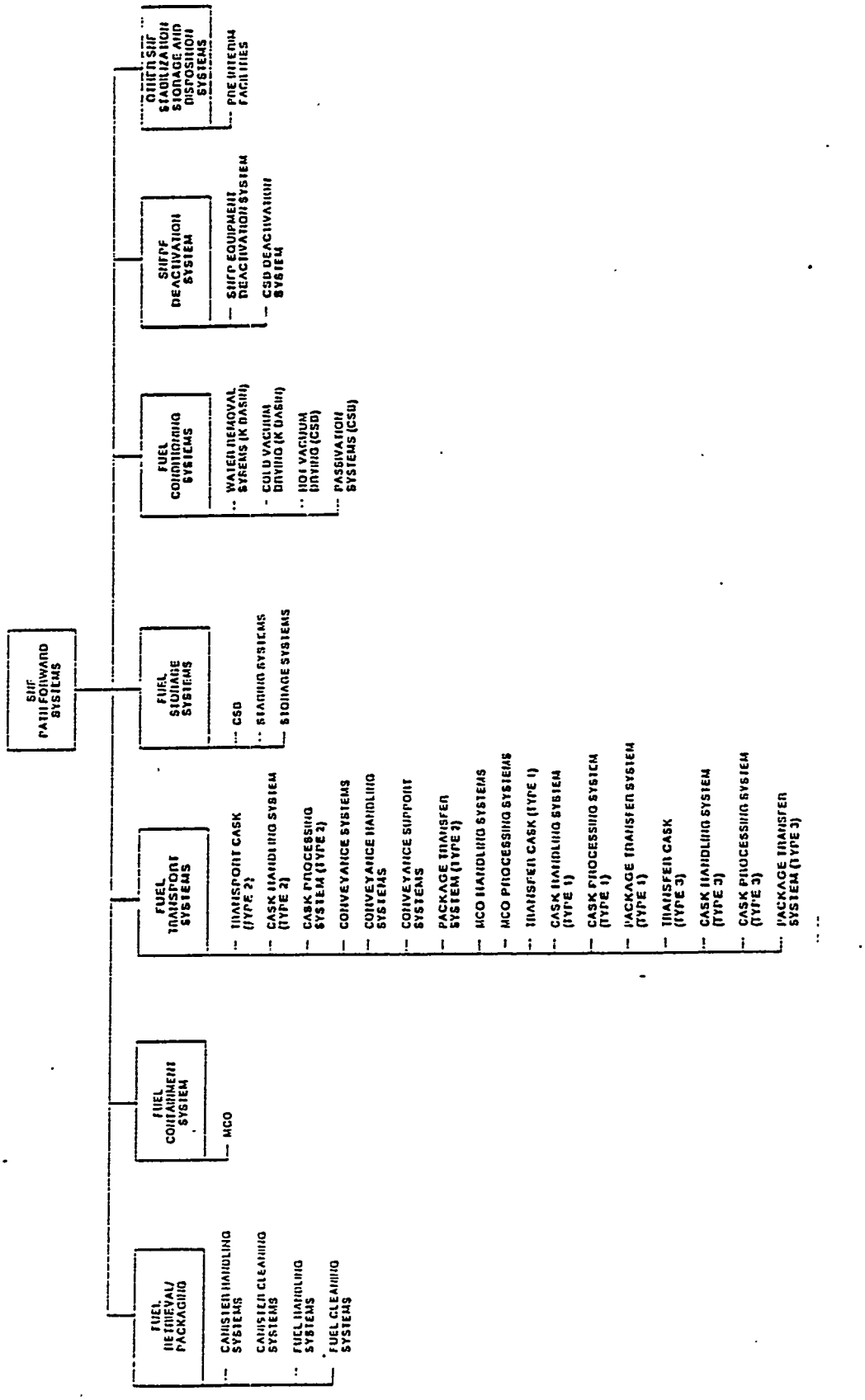


FIGURE 3-3
WBS TO PRODUCT TREE CROSSWALK

WBS PRODUCT	1.4.1.01 Project Integration	1.4.1.02 System Integration	1.4.1.03 K Basin Maintenance & Operations	1.4.1.04 K Basin Material Removal/ Clean-up	1.4.1.05 MCO Acquisition	1.4.1.06 Cask/ Transportation System	1.4.1.07 Canister Storage Building	1.4.1.08 Conditioning Facility	1.4.1.09 Other Hanford Fuel Retrieval Processing and Storage
Operations Systems									
K Basin Operations			X						
SNF Path Forward Operations				X			X	X	
SNF Disposition Systems									
*SNF Disposition Systems									
K Basin Systems									
Process Systems				X					
Facility Systems				X		X			
Facility Upgrades			X						
K Basin Deactivation Systems				X					

*Currently, disposition of all physical systems associated with K Basins and fuel removal is not within the scope of the SNF Project

FIGURE 3-3
WBS TO PRODUCT TREE CROSSWALK

WBS PRODUCT	1.4.1.01 Project Integration	1.4.1.02 System Integration	1.4.1.03 K Basin Maintenance & Operations	1.4.1.04 K Basin Material Removal/ Clean-up	1.4.1.05 MCO Acquisition	1.4.1.06 Cask/ Transportation System	1.4.1.07 Canister Storage Building	1.4.1.08 Conditioning Facility	1.4.1.09 Other Hanford Fuel Retrieval Processing and Storage
SNF Path Forward Systems									
Fuel Retrieval/ Packaging				X	X	X			
Fuel Containment System				X	X	X			
Fuel Transport Systems						X			
Fuel Storage Systems							X		
Fuel Conditioning Systems								X	
Other SNF Stabilization, Storage, and Disposition									X

3.1.2 Work Breakdown Structure

The SNF Project WBS is developed utilizing systems engineering functional analysis. The PBS forms the basis for the SNF Project WBS. The WBS is a product driven division of activities associated with achieving the SNF Project mission. The Project level WBS consists of nine top level product areas that authorize, control, and accomplish major project activities. Products for each of the nine top-level WBS elements are further identified into discrete product area sub-elements, each producing deliverables required to achieve interim storage of Hanford spent nuclear fuel. A graphic representation of the SNF Project WBS is provided as Figure 3-4.

3.1.3 Work Breakdown Structure Dictionary

The SNF Project dictionary sheets describe the scope of work that will be accomplished over the life of the WBS element. Dictionary sheets are a means of organizing the project definition, technical scope, and planning documentation for various levels of a WBS. Project level (top nine) WBS dictionary sheets are provided as Figures 3-5 to 3-13. The WBS dictionary sheets document the scope of work that will be achieved by the WBS program element and major end item product deliverables.

3.1.4 Responsibility Assignment Matrix

The SNF Project Responsibility Assignment Matrix (RAM), by WBS sub-element, identifies the individual and organization responsible for managing work, cost and schedule control, and status reporting. The individuals identified in the RAM have the responsibility, authority, and accountability for the accomplishment of the WBS sub-element deliverables and scopes of work. The WBS RAM is documented as Table 3-2.

3.1.5 Technology Requirements

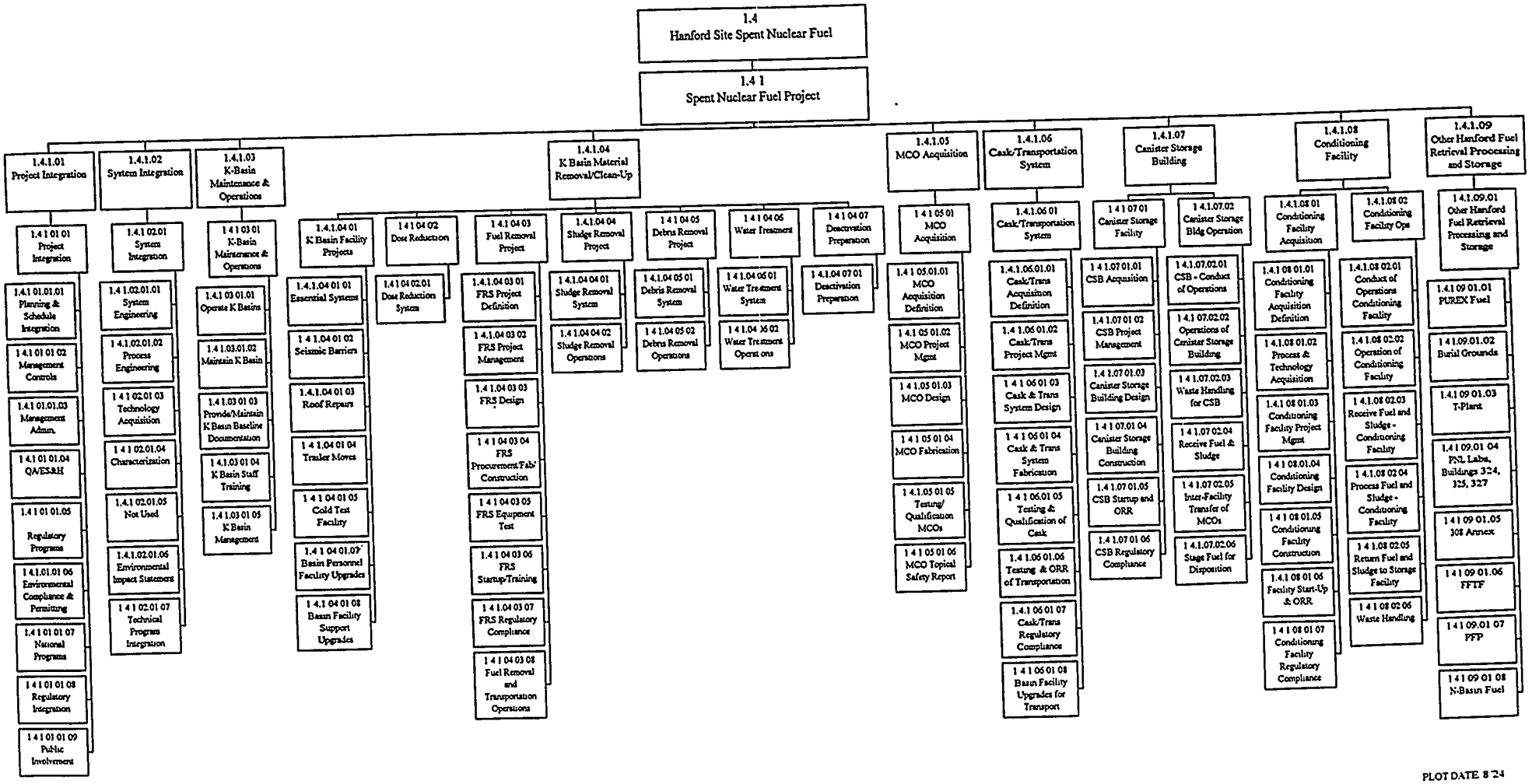
A number of general technical areas have been identified which require technology acquisition. Each of these technical areas relate to phenomena which occur during the process stages (transportation, staging, conditioning, etc.). The fundamental issues include ignition, corrosion, hydrogen generation, hydride formation, thermal hydraulic performance, criticality and accountability. These issues are common to all of the strategies that have been proposed for disposition of the K Basin fuel, sludge, and debris. However, the relative importance of each issue is different from one strategy to another. The strongest drivers for design are derived from the hydrogen generation and pyrophoricity issues. These issues are exacerbated by the presence of sludge in the MCO. Sludge contributes to continued corrosion by supplying a source of water associated with the sludge and also contributes potentially to the pyrophoric characteristics by introducing hydrides or finely divided metal. The lack of good chemical characterization of the sludge, or the ability to accurately measure sludge quantity, greatly increased the uncertainty of the conditioning process with sludge present.

The Integrated Process Strategy (IPS) that will be incorporated through the change control process reduces the uncertainty in the most troublesome technical areas - those dealing with pyrophoricity and hydrogen generation in the MCO. However, there is still a strong need to demonstrate that the vacuum drying process does indeed produce an acceptable product. The MCO must be proven sufficiently safe for transport, and the final conditioned MCO must be proven safe for the interim storage period. Demonstrating that proof will be the central focus of the technology acquisition efforts. Other important technical efforts are needed to assure the operations at the basins are efficient and safe. The desludging process will require acquisition of technology to quickly desludge and rerack, with the controls to provide assurance that the job has met the criteria. Technology is needed to establish the criteria, and to measure or detect conditions that do not meet the criteria. The path for the sludge has assumed that all sludges will be accepted into the tank farms, but work will be needed to show that is acceptable, or to define the conditioning steps required to make it acceptable. The loading of fuel into the MCOs will require assurance that the various types and conditions of fuel cannot exceed criticality limits. And finally, the fuel must be handled in a manner that provides control of material accountability.

Figure 3-4
WORK BREAKDOWN STRUCTURE GRAPHIC 11" X 17" FOLDOUT (SQUIRES)

HANFORD SITE SPENT NUCLEAR FUEL PROJECT
WORK BREAKDOWN STRUCTURE

FIGURE 3-4



PLOT DATE 8 24

FIGURE 3-5
WBS DICTIONARY 1.4.1.01

WORK BREAKDOWN STRUCTURE DICTIONARY		
1 PROJECT TITLE/PARTICIPANT Spent Nuclear Fuel / Project Integration	2 DATE June 21, 1995	3 IDENTIFICATION NO. 14101.WBS
4 WBS ELEMENT CODE 1.4.1.01	5 WBS ELEMENT TITLE Project Integration	
6 INDEX LINE NO.	7 REVISION NO AND AUTHORIZATION A	8 DATE June 21, 1995
9 APPROVED CHANGES		
10 SYSTEM DESIGN DESCRIPTION	11 BUDGET AND REPORTING NUMBER Expense EW3135040	

A. STATEMENT OF WORK

Work To Be Performed

The Project Integration WBS element encompasses the implementation of an integrated, logic-driven project that will provide for the safe, interim storage for Hanford's spent nuclear fuel which is cost effective, consistent with the DOE complex spent fuel disposition plans and in compliance with state and federal regulations.

Typically, the scope includes management personnel, and persons performing implementation and integration between SNF sub-projects. The scope for persons performing management tasks for sub-projects is contained in the sub-project WBS elements.

The specific work scope performed includes Planning and Scheduling; Management Controls; Management Administration; Quality Administration and ES&H; Regulatory Programs Coordination; Environmental Compliance and Permitting; National Programs Coordination; Regulatory Integration; and Public Involvement.

1.4.1.01.01	Project Integration
1.4.1.01.01.01	Planning and Schedule Integration

1.4.1.01.01.02	Management Controls
1.4.1.01.01.03	Management Administration
1.4.1.01.01.04	QA/ES&H
1.4.1.01.01.05	Regulatory Programs
1.4.1.01.01.06	Environmental Compliance and Permitting
1.4.1.01.01.07	National Programs
1.4.1.01.01.08	Regulatory Integration
1.4.1.01.01.09	Public Involvement

Major end-item deliverables (related to milestones and interfaces appropriate to this level of the WBS):

- SNF Project cost and schedule baselines, program plans, project control documents, and change management documents.
- Site planning and reporting documents including Multi-Year Project Plans, ADS, and DNFSB.
- Administrative reports including the Award Fee, Performance Based Incentives reporting, significant events, monthly operations, achievements.
- Quality Assurance Plan and Project Quality Assurance surveillances.
- Regulatory Strategy Report, Price Anderson Amendments Act plan and central database of regulatory requirements.
- Meetings, briefings and reports to stakeholders, Indian tribes, governmental officials, civil entities and the media.

FIGURE 3-6
WBS DICTIONARY 1.4.1.02

WORK BREAKDOWN STRUCTURE DICTIONARY		
1 PROJECT TITLE/PARTICIPANT Spent Nuclear Fuel / System Integration	2 DATE June 21, 1995	3 IDENTIFICATION NO. 14102.WBS
4 WBS ELEMENT CODE 1.4.1.02	5 WBS ELEMENT TITLE System Integration	
6 INDEX LINE NO.	7 REVISION NO AND AUTHORIZATION A	8 DATE June 21, 1995
9 APPROVED CHANGES		
10 SYSTEM DESIGN DESCRIPTION	11 BUDGET AND REPORTING NUMBER Expense EW3135040	

A. STATEMENT OF WORK

Work To Be Performed

The Systems Integration WBS element encompasses the overall technical direction for the Spent Nuclear Fuel Project. The workscope includes identification and evaluation of technical approaches for safe dry interim storage of K Basins spent nuclear fuel (SNF), implementation of the overall technical strategy for the Project, and resolution of technical issues as necessary to implement the strategy.

System Integration consists of six major sub-elements.

Systems Engineering includes analysis of the Project mission; establishment of functions and requirements necessary to accomplish the mission (Technical Baseline); and development and coordination of management processes for issues management, interface control, and configuration management.

Process Engineering includes development of the Project-level process flow, product criteria, and design criteria; provides process-related technical support to the sub-projects; development of an implementation strategy for special nuclear material accountability and safeguards policies; and acquisition of systems necessary to implement that strategy.

Technology Acquisition provides defensible technical bases for technology selection and process design; identifies technical issues that relate to safety and process design considerations; and conducts necessary studies to resolve these issues.

Characterization collects samples of fuel and sludge from the K Basins; conducts analyses; provides evaluated data describing the physical, chemical, and radiological characteristics of the fuel and sludge; and conducts tests as necessary to support resolution of technical issues.

Technical Program Integration provides the primary focal point for development of the programmatic strategy and direction; provides overall Project-level engineering management; and provides coordination of department-wide planning activities.

Environmental Impact Statement provides technical information necessary to support the K Basins Environmental Impact Statement and supports DOE and the EIS preparer during public review, comment resolution, and preparation of the final EIS and record of decision.

1.4.1.02.01	System Integration
1.4.1.02.01.01	System Engineering
1.4.1.02.01.02	Process Engineering
1.4.1.02.01.03	Technology Acquisition
1.4.1.02.01.04	Characterization
1.4.1.02.01.06	Environmental Impact Statement
1.4.1.02.01.07	Technical Program Integration

Major end-item deliverables (related to milestones and interfaces appropriate to this level of the WBS):

- Revisions of the System Engineering, Technical Baseline, and Risk Management Plans.
- Waste Type data forms and Solid Waste Forecast.
- SNF Project Process Flow Diagrams.
- Safeguards and accountability process and equipment implementation.
- Characterization Management Plan.
- K Basin Fuel and Sludge samples and laboratory analysis.
- Fuel Dry Storage, fuel drying behavior, and sludge reactivity evaluations.
- Technology evaluators of fuel reactors in air and water, safety basis and MCO venting.
- K Basin EIS and ROD.

FIGURE 3-7
WBS DICTIONARY 1.4.1.03

WORK BREAKDOWN STRUCTURE DICTIONARY		
1 PROJECT TITLE/PARTICIPANT Spent Nuclear Fuel / K Basins Maintenance and Operations	2 DATE June 21, 1995	3 IDENTIFICATION NO. 14103.WBS
4 WBS ELEMENT CODE 1.4.1.03	5 WBS ELEMENT TITLE K Basin Maintenance and Operations	
6 INDEX LINE NO.	7 REVISION NO AND AUTHORIZATION A	8 DATE June 21, 1995
9 APPROVED CHANGES		
10 SYSTEM DESIGN DESCRIPTION	11 BUDGET AND REPORTING NUMBER Expense EW3135040 Capital 35EW3135040 GPP 39EW3135040	

A. STATEMENT OF WORK

Work To Be Performed

The K Basins Maintenance and Operations WBS element encompasses the work at the K East and K West Basins to maintain the facilities in a safe, environmental sound condition including facility operations and maintenance; handling and storage of spent nuclear fuel; and operational support of the Spent Nuclear Fuel Project.

The sub-projects to remove the fuel, sludge, debris, and water are incremental to the basin's maintenance and operations and are wholly contained in other WBS elements including the operations manpower to complete them. The sub-projects to upgrade the basins essential systems are also in other WBS elements. The basins M&O expenses include some one time cost in FY 1996 such as S/RIDS and design basis reconstitution costs. Otherwise they remain essentially constant through the fuel and sludge loadout periods.

The scope contained the WBS element includes the management, technical, clerical and bargaining unit personnel performing maintenance, surveillance, documentation, training and security for the fuel storage basins and the

supporting utility systems. Non-labor cost elements include maintenance materials and waste disposal charges.

1.4.1.03.01	K Basin Maintenance and Operations
1.4.1.03.01.01	Operate K Basins
1.4.1.03.01.02	Maintain K Basins
1.4.1.03.01.03	Provide/Maintain K Basin Baseline Documentation
1.4.1.03.01.04	K Basin Staff Training
1.4.1.03.01.05	K Basin Management

Major end-item deliverables (related to milestones and interfaces appropriate to this level of the WBS):

- Maintain and operate the fuel storage basins at 100 K Area in a safe and environmentally sound manner.
- Complete and verify training for special nuclear fuel handling personnel in compliance with DOE order.
- Complete required surveillance and maintenance to insure compliance with OSR and SAR.
- Design Basis Reconstitution Report.

FIGURE 3-8
WBS DICTIONARY 1.4.1.04

WORK BREAKDOWN STRUCTURE DICTIONARY		
1 PROJECT TITLE/PARTICIPANT Spent Nuclear Fuel / K Basins Material Removal/Cleanup	2 DATE June 21, 1995	3 IDENTIFICATION NO. 14104.WBS
4 WBS ELEMENT CODE 1.4.1.04	5 WBS ELEMENT TITLE K Basin Material Removal/Cleanup and Deactivation	
6 INDEX LINE NO.	7 REVISION NO AND AUTHORIZATION A	8 DATE June 21, 1995
9 APPROVED CHANGES		
10 SYSTEM DESIGN DESCRIPTION	11 BUDGET AND REPORTING NUMBER Expense EW3135040	

A. STATEMENT OF WORK

Work To Be Performed

The K Basin Material Removal/Cleanup WBS element encompasses sub-projects to perform fuel, sludge, and debris removal and water treatment in the K Basins. To facilitate these activities, sub-projects to upgrade the K Basin Facility for safety and efficiency in supporting the additional personnel and increased activity that are expected during upcoming removal projects are also contained in this WBS element. Maintenance and Operation of the Cold Test Facility is part of the facility upgrades.

For each sub-project, the work includes the functions and requirements specification, design, procurement, installation, safety documentation, environmental compliance and permitting. The scope also includes the operations related activities to prepare procedures, train personnel and conduct operational readiness assessments/reviews.

The scope of operating the fuel, sludge, debris removal systems and the water treatment system after the approval for operations is contained in separate sub-elements of the WBS.

The sub-projects included are: Essential Systems Recovery, Roof Repairs, Trailer Moves, Cold Test Facility, Basins Personnel Facility Upgrades, Fuel Removal Support Facility Modifications, Dose Reduction, Fuel Removal, Sludge Removal, Debris Removal, and Water Treatment.

Each sub-project includes the cost and interface with Hanford Site waste disposition facilities. The fuel, sludge, and debris removal and water treatment sub-projects include the operations costs for transportation of fuel or waste to the destination location.

1.4.1.04.01	K Basin Facility Projects
1.4.1.04.01.01	Essential Systems
1.4.1.04.01.02	Seismic Barriers
1.4.1.04.01.03	Roof Repairs
1.4.1.04.01.04	Trailer Moves
1.4.1.04.01.05	Cold Test Facility
1.4.1.04.01.07	Basin Personnel Facility Upgrades
1.4.1.04.01.08	Basin Facility Support Upgrades
1.4.1.04.02	Dose Reduction
1.4.1.04.02.01	Dose Reduction System
1.4.1.04.03	Fuel Removal Project
1.4.1.04.03.01	FRS Project Definition
1.4.1.04.03.02	FRS Project Management
1.4.1.04.03.03	FRS Design
1.4.1.04.03.04	FRS Procurement/Fab/Construction
1.4.1.04.03.05	FRS Equipment Test
1.4.1.04.03.06	FRS Startup/Training
1.4.1.04.03.07	FRS Regulatory Compliance
1.4.1.04.03.08	Fuel Removal and Transportation Operations
1.4.1.04.04	Sludge Removal Project
1.4.1.04.04.01	Sludge Removal System
1.4.1.04.04.02	Sludge Removal Operations
1.4.1.04.05	Debris Removal Project
1.4.1.04.05.01	Debris Removal System
1.4.1.04.05.02	Debris Removal Operations
1.4.1.04.06	Water Treatment System
1.4.1.04.06.01	Water Treatment System
1.4.1.04.06.02	Water Treatment Operations
1.4.1.04.07	Deactivation Preparation
1.4.1.04.07.01	Deactivation Preparation

Major end-item deliverables (related to milestones and interfaces appropriate to this level of the WBS):

- Essential system upgrades to basin.
- Relocation of personnel trailers.
- K Basins roof repairs.
- Availability of the Cold Test Facility for design development and operation training.
- Design, installation and readiness review of Fuel Removal Support Facilities.
- Dose Reduction associated with basin walls and piping.
- Fuel Removal System design, installation, safety analysis, preparation for operations, and Operational Readiness Review.
- Sludge Removal System design, installation, safety analysis, preparation for operations, and Operational Readiness Review.
- Debris Removal System design, installation, safety analysis, preparation for operations, and Operational Readiness Review.
- Disposition of 33 Legacy Water System IXCs design, installation, safety analysis, preparation for operations, and Operational Readiness Review.
- Water Treatment System design, installation, safety analysis, preparation for operations, and Operational Readiness Review.

FIGURE 3-9
WBS DICTIONARY 1.4.1.05

WORK BREAKDOWN STRUCTURE DICTIONARY		
1 PROJECT TITLE/PARTICIPANT Spent Nuclear Fuel / MCO Acquisition	2 DATE June 21, 1995	3 IDENTIFICATION NO. 14105.WBS
4 WBS ELEMENT CODE 1.4.1.05	5 WBS ELEMENT TITLE MCO Acquisition	
6 INDEX LINE NO.	7 REVISION NO AND AUTHORIZATION A	8 DATE June 21, 1995
9 APPROVED CHANGES		
10 SYSTEM DESIGN DESCRIPTION	11 BUDGET AND REPORTING NUMBER Expense EW3135040 Capital 35EW3135040 Line Item	

A. STATEMENT OF WORK

Work To Be Performed

The Multi-Canister Overpack (MCO) Acquisition WBS element encompasses acquisition of containers which will house the spent nuclear fuel during transportation to the Canister Storage Building (CSB) during venting and conditioning, and during interim storage at the CSB. 780 MCOs are estimated to be required. The scope includes the establishment of the MCO functions and requirements, design, process testing, acceptance testing, fabrication, procurement, safety documentation and management systems. The MCO includes the shell, lid, and internal structures to house ten canisters of K Basins Spent Nuclear Fuel.

The facilities, equipment, training, readiness assessment/reviews and operations to load, transport and store the MCO's are contained in other WBS elements. The MCO transportation cask is also contained in a separate WBS element.

1.4.1.05.01	MCO Acquisition
1.4.1.05.01.01	MCO Acquisition Definition
1.4.1.05.01.02	MCO Project Management
1.4.1.05.01.03	MCO Design

1.4.1.05.01.04	MCO Fabrication
1.4.1.05.01.05	Testing/Qualification MCOs
1.4.1.05.01.06	MCO Topical Safety Reports

Major end-item deliverables (related to milestones and interfaces appropriate to this level of the WBS):

- MCO Phase I Design Report
- MCO Qualification Test
- MCO Topical Design Report
- MCO Delivery for Fuel Removal Start
- MCO, 780 each, delivery complete
- Award MCO design/fabrication contract

FIGURE 3-10
WBS DICTIONARY 1.4.1.06

WORK BREAKDOWN STRUCTURE DICTIONARY		
1 PROJECT TITLE/PARTICIPANT Spent Nuclear Fuel / Cask/Transportation System	2 DATE June 24, 1995	3 IDENTIFICATION NO. 14106.WBS Project W-443
4 WBS ELEMENT CODE 1.4.1.06	5 WBS ELEMENT TITLE Cask/Transportation System	
6 INDEX LINE NO.	7 REVISION NO AND AUTHORIZATION A	8 DATE June 21, 1995
9 APPROVED CHANGES		
10 SYSTEM DESIGN DESCRIPTION	11 BUDGET AND REPORTING NUMBER Expense EW3135040 Capital 35EW3135040 Line Item 39EW3135040	

A. STATEMENT OF WORK

Work To Be Performed

The Cask/Transportation System WBS element encompasses acquisition of the transportation system and transportation casks to move the Multi-Canister Overpacks (MCO) from the K Basins to the Canister Storage Building (CSB). The transportation system includes the casks, conveyances, and ancillary equipment.

The scope includes definition of the functions and requirements, design, procurement, qualification testing, acceptance testing, and management systems. Also included is modification of the facilities at the basins for cask loadout, staging and transport vehicle interface.

The fuel loadout and transportation training, readiness assessments/review and operations is contained in other WBS elements. Sludge, debris, and water transportation equipment is also contained in other WBS elements.

1.4.1.06.01	Cask/Transportation System
1.4.1.06.01.01	Cask/Transportation Acquisition Definition
1.4.1.06.01.02	Cask/Transportation Project Management

1.4.1.06.01.03	Cask and Transportation System Design
1.4.1.06.01.04	Cask and Transportation System Fabrication
1.4.1.06.01.05	Testing and Qualification of Cask
1.4.1.06.01.06	Testing and ORR of Transportation
1.4.1.06.01.07	Cask/Transportation Regulatory Compliance
1.4.1.06.01.08	Basin Facility Upgrades for Transport

Major end-item deliverables (related to milestones and interfaces appropriate to this level of the WBS):

- Award Cask and Transporter Design/Fabrication contract
- Cask/Transportation System Design Report
- Cask Qualification Test
- Cask/Transporter Safety Analysis Report (SARP)
- Delivery of 5 casks and transporter systems
- Transportation Operational Readiness Review

FIGURE 3-11
WBS DICTIONARY 1.4.1.07

WORK BREAKDOWN STRUCTURE DICTIONARY		
1 PROJECT TITLE/PARTICIPANT Spent Nuclear Fuel / Canister Storage Building	2 DATE June 21, 1995	3 IDENTIFICATION NO. 14107.WBS Project W-379
4 WBS ELEMENT CODE 1.4.1.07	5 WBS ELEMENT TITLE Canister Storage Building	
6 INDEX LINE NO.	7 REVISION NO AND AUTHORIZATION A	8 DATE June 21, 1995
9 APPROVED CHANGES		
10 SYSTEM DESIGN DESCRIPTION	11 BUDGET AND REPORTING NUMBER Expense EW3135040 Capital Line Item 39EW3135040	

A. STATEMENT OF WORK

Work To Be Performed

The Canister Storage Building (CSB) WBS element encompasses the acquisition and operation of the facility to stage and store the spent nuclear fuel after removal from the basins. The facility is sized to storage 2100 metric tons of fuel in a secure environment. The CSB receives fuel transported from the K Basins and safely maintains the fuel in vaults in the Multi-Canister Overpacks for up to 40 years after movement from the basins. The CSB provides staging of the fuel prior to conditioning in a co-located Conditioning Facility. After conditioning it is returned to the CSB for the extended storage period.

Under the mission of the SNF Project, the operation of the CSB is transferred to a facilities maintenance program in December 2000. Deactivation of the CSB is not included in the SNF Project.

Acquisition includes the definition of functions and requirements, design, procurement, construction, safety documentation, environmental compliance and permitting. Also included is the development of procedures, training, startup and the Operational Readiness Review.

The operation of the CSB after declaration of readiness is incorporated in a sub-element of this WBS element. The operations activities include storage monitoring, maintenance, security, and disposal of generated wastes.

1.4.1.07.01	Canister Storage Facility
1.4.1.07.01.01	CSB Acquisition Definition
1.4.1.07.01.02	CSB Project Management
1.4.1.07.01.03	Canister Storage Building Design
1.4.1.07.01.04	Canister Storage Building Construction
1.4.1.07.01.05	CSB Startup and ORR
1.4.1.07.01.06	CSB Regulatory Compliance
1.4.1.07.02.01	CSB - Conduct of Operations
1.4.1.07.02.02	Operations of Canister Storage Building
1.4.1.07.02.03	Waste Handling for CSB
1.4.1.07.02.04	Receive Fuel and Sludge
1.4.1.07.02.05	Inter-Facility Transfer of MCOs
1.4.1.07.02.06	Stage Fuel for Disposition

Major end-item deliverables (related to milestones and interfaces appropriate to this level of the WBS):

- Award Design Contract
- Definitive Design Report
- Safety Analysis Report
- Key Decisions 1, 2, 3A, 3B, and 4
- Construction Acceptance of Facility
- Trained Operators and ORR
- Operation of Facility to Project End Point

FIGURE 3-12
WBS DICTIONARY 1.4.1.08

WORK BREAKDOWN STRUCTURE DICTIONARY		
1 PROJECT TITLE/PARTICIPANT Spent Nuclear Fuel / Conditioning Facility	2 DATE June 21, 1995	3 IDENTIFICATION NO. 14108.WBS
4 WBS ELEMENT CODE 1.4.1.08	5 WBS ELEMENT TITLE Conditioning Facility	
6 INDEX LINE NO.	7 REVISION NO AND AUTHORIZATION A	8 DATE June 21, 1995
9 APPROVED CHANGES		
10 SYSTEM DESIGN DESCRIPTION	11 BUDGET AND REPORTING NUMBER Expense EW3135040 Capital Line Item 39EW3135040	

A. STATEMENT OF WORK

Work To Be Performed

The Conditioning Facility Acquisition will provide a facility and equipment to dry and condition spent nuclear fuel stored at K Basins. Fuel will be shipped to the CSB prior to processing at the Conditioning Facility. Scope includes establishment of process equipment and facility functions and requirements, product and feed criteria, design, procurement, testing, construction, safety documentation, permitting, management systems, and operational readiness activities.

The operations of the CF after declaration of readiness is incorporated in a sub-element of this WBS element. The operation activities include conditioning of the fuel, maintenance, security, and disposal of generated wastes.

1.4.1.08.01	Conditioning Facility Acquisition
1.4.1.08.01.01	Conditioning Facility Acquisition Definition
1.4.1.08.01.02	Process and Technology Acquisition
1.4.1.08.01.03	Conditioning Facility Project Management
1.4.1.08.01.04	Conditioning Facility Design
1.4.1.08.01.05	Conditioning Facility Construction

1.4.1.08.01.06	Facility Startup and ORR
1.4.1.08.01.07	Conditioning Facility Regulatory Compliance
1.4.1.08.02	Conditioning Facility Operations
1.4.1.08.02.01	Conduct of Operations - Conditioning Facilities
1.4.1.08.02.02	Operation of Conditioning Facility
1.4.1.08.02.03	Receive Fuel and Sludge - Conditioning Facility
1.4.1.08.02.04	Process Fuel and Sludge - Conditioning Facility
1.4.1.08.02.05	Return Fuel and Sludge to Storage Facility
1.4.1.08.02.06	Waste Handling

Major end-item deliverables (related to milestones and interfaces appropriate to this level of the WBS):

- Conceptual Design Report
- Award Design Contract
- Definitive Design Report
- Safety Analysis Report
- Key Decisions 1, 2, 3, and 4
- Construction Acceptance of Facility
- Trained Operators and ORR
- Operation of Facility to - Conditioned Fuel

FIGURE 3-13
WBS DICTIONARY 1.4.1.09

WORK BREAKDOWN STRUCTURE DICTIONARY		
1 PROJECT TITLE/PARTICIPANT Spent Nuclear Fuel / Other Hanford Fuel Retrieval Processing and Storage	2 DATE June 21, 1995	3 IDENTIFICATION NO. 14109.WBS
4 WBS ELEMENT CODE 1.4.1.09	5 WBS ELEMENT TITLE Other Hanford Fuel Retrieval Processing and Storage	
6 INDEX LINE NO.	7 REVISION NO AND AUTHORIZATION A	8 DATE June 21, 1995
9 APPROVED CHANGES		
10 SYSTEM DESIGN DESCRIPTION	11 BUDGET AND REPORTING NUMBER Expense EW3135040 Capital Line Item	

A. STATEMENT OF WORK

Work To Be Performed

The Other Fuel Management WBS element encompasses SNF Project activities necessary to attain safe interim storage of the SNF at the Hanford Site that is not currently stored at the K Basins and transfer of these materials to INEL in accordance with the SNF and INEL EIS Record of Decision. The SNF inventory in the 300 and 400 Areas will be consolidated at the 400 Area Interim Storage Area (ISA), primarily with non-SNF Project funds. The SNF Project will fund certain activities to maintain the materials at the 400 area ISA in accordance with approved project interface agreements. The 400 Area ISA SNF and T Plant SNF will later be transferred to a 200 Area ISA, which will include a pad provided under this WBS. PFP and LLBG SNF will be repackaged and staged at the 200 Area ISA for a short period until transferred to INEL.

The scope includes acquisition of casks, safety analysis, transportation of fuel onsite, interim storage surveillance and security and transportation of the fuel offsite. Each of the fuel types has specific interfaces and responsibility assignments with other Hanford programs.

The Other Hanford Fuel includes:

- N Reactor fuel currently located at the PUREX facility.
- Oregon State University reactor TRIGA fuel currently located at the Low Level Waste Burial Grounds.
- Shipping port PWR Core 2 fuel currently located at T Plant.
- Light Water Reactor fuel from the PNL 324, 325, and 327 Facilities.
- TRIGA fuel currently located at the 308 Facility Annex.
- FFTF fuel currently located the FFTF.
- LAMPRE and University of Washington reactor fuel currently located at the PFP facility.
- N Reactor fuel fragments in the N Basins sludge currently located at the N Basins.

1.4.1.09.01	Other Hanford Fuel Retrieval Processing and Storage
1.4.1.09.01.01	PUREX Fuel
1.4.1.09.01.02	Burial Grounds
1.4.1.09.01.03	T Plant
1.4.1.09.01.04	PNL Labs, Buildings 324, 325, 327
1.4.1.09.01.05	308 Annex
1.4.1.09.01.06	FFTF
1.4.1.09.01.07	PFP
1.4.1.09.01.08	N Basin Fuel

Major end-item deliverables (related to milestones and interfaces appropriate to this level of the WBS):

- The transfer of spent nuclear fuel located at PUREX, Low Level Waste Burial Grounds, T Plant, PNL Labs, FFTF and PFP, to an interim storage pad located adjacent to the CSB in the 200 Area.
- Following interim storage at the 200 Area, the transfer of PUREX, Burial Grounds, T Plant, PNL Labs, FFTF and PFP spent nuclear fuel to INEL.

TABLE 3-2
WORK BREAKDOWN STRUCTURE INDEX AND PROGRAMMATIC RESPONSIBILITY ASSIGNMENT MATRIX

PROGRAM ELEMENT	ACTIVITY	COST ACCOUNT	TITLE	RESPONSIBLE MANAGER	RESPONSIBLE ORGANIZATION
1.4.1.01			PROJECT INTEGRATION	DW SIDDOWAY	PROJECT INTEGRATION
	1.4.1.01.01		PROJECT INTEGRATION	DW SIDDOWAY	PROJECT INTEGRATION
		1.4.1.01.01.01	PLANNING & SCHEDULE INTEGRATION	SL MAGNANI	SCHEDULE INTEGRATION
		1.4.1.01.01.02	MANAGEMENT CONTROLS	JL DENNING	PROJECT BASELINE CONTROL
		1.4.1.01.01.03	MANAGEMENT ADMIN.	CC HAGES	ADMINISTRATION
		1.4.1.01.01.04	QA/ES&H	DW SMITH	QUALITY ASSURANCE
		1.4.1.01.01.05	REGULATORY PROGRAMS	GC MOOERS	REG INTEG /PUBLIC INV
		1.4.1.01.01.06	ENVIRONMENTAL COMPLIANCE & PERMITTING	GC MOOERS	REG INTEG /PUBLIC INV
		1.4.1.01.01.07	NATIONAL PROGRAMS	RL MCCORMACK	SNF DISPOSITION ENG
		1.4.1.01.01.08	REGULATORY INTEGRATION	GC MOOERS	REG INTEG /PUBLIC INV
		1.4.1.01.01.09	PUBLIC INVOLVEMENT	GC MOOERS	REG INTEG /PUBLIC INV
1.4.1.02			SYSTEM INTEGRATION	EW GERBER	SNF ENGINEERING
	1.4.1.02.01		SYSTEM INTEGRATION	JC WOMACK	SYSTEMS ENG/ INTEGRATION
		1.4.1.02.01.01	SYSTEM ENGINEERING	JC WOMACK	SYSTEMS ENG/ INTEGRATION
		1.4.1.02.01.02	PROCESS ENGINEERING	JR FREDERICKSON	PROCESS ENGINEERING
		1.4.1.02.01.03	TECHNOLOGY ACQUISITION	PA SCOTT	APPLIED TECHNOLOGY
		1.4.1.02.01.04	CHARACTERIZATION	RP OMBERG	CHARACTERIZATION
		1.4.1.02.01.05	INACTIVE		
		1.4.1.02.01.06	ENVIRONMENTAL IMPACT STATEMENT	RL MCCORMACK	SNF DISPOSITION ENG
		1.4.1.02.01.07	TECHNICAL PROGRAM INTEGRATION	JC WOMACK	SYSTEMS ENG /INTEGRATION

TABLE 3-2
WORK BREAKDOWN STRUCTURE INDEX AND PROGRAMMATIC RESPONSIBILITY ASSIGNMENT MATRIX

PROGRAM ELEMENT	ACTIVITY	COST ACCOUNT	TITLE	RESPONSIBLE MANAGER	RESPONSIBLE ORGANIZATION
1.4.1.03			K-BASIN MAINTENANCE & OPERATIONS	TB VENEZIANO	K BASINS
	1.4.1.03.01		K-BASIN MAINTENANCE & OPERATIONS	TB VENEZIANO	K BASINS
		1.4.1.03.01.01	OPERATE K BASINS	CT MILLER	K BASINS OPERATIONS
		1.4.1.03.01.02	MAINTAIN K BASIN	BL DEBBAN	K BASINS MAINTENANCE
		1.4.1.03.01.03	PROVIDE/MAINTAIN K BASIN BASELINE DOCUMENTATION	CT MILLER	K BASINS OPERATIONS
		1.4.1.03.01.04	K BASIN STAFF TRAINING	LL BLEHM	PROCEDURES & TRAINING
		1.4.1.03.01.05	K BASIN MANAGEMENT	CT MILLER	K BASINS OPERATIONS
1.4.1.04			K BASIN MATERIAL REMOVAL/CLEAN-UP	MJ WIEMERS	K BASINS PROJECTS
	1.4.1.04.01		K BASIN FACILITY PROJECTS	JL WISE	FACILITY PROJECTS
		1.4.1.04.01.01	ESSENTIAL SYSTEMS	JL WISE	FACILITY PROJECTS
		1.4.1.04.01.02	SEISMIC BARRIERS	CT MILLER	K BASINS SUPPORT
		1.4.1.04.01.03	ROOF REPAIRS	JL WISE	FACILITY PROJECTS
		1.4.1.04.01.04	TRAILER MOVES	JL WISE	FACILITY PROJECTS
		1.4.1.04.01.05	COLD TEST FACILITY	CJ ALDERMAN	ENGINEERING SUPPORT
		1.4.1.04.01.06	INACTIVE		
		1.4.1.04.01.07	BASIN PERSONNEL FACILITY UPGRADES	JL WISE	FACILITY PROJECTS
		1.4.1.04.01.08	BASIN FACILITY SUPPORT UPGRADES	JL WISE	FACILITY PROJECTS
	1.4.1.04.02		DOSE REDUCTION	MJ WIEMERS	K BASINS PROJECTS
		1.4.1.04.02.01	DOSE REDUCTION SYSTEM	FW MOORE	FACILITY SYSTEMS
	1.4.1.04.03		FUEL REMOVAL PROJECT	WD GALLO	PATH FORWARD PROJECTS

TABLE 3-2
WORK BREAKDOWN STRUCTURE INDEX AND PROGRAMMATIC RESPONSIBILITY ASSIGNMENT MATRIX

PROGRAM ELEMENT	ACTIVITY	COST ACCOUNT	TITLE	RESPONSIBLE MANAGER	RESPONSIBLE ORGANIZATION
		1.4.1.04.03.01	FRS PROJECT DEFINITION	JR FREDERICKSON	PROCESS ENGINEERING
		1.4.1.04.03.02	FRS PROJECT MANAGEMENT	TL YOUNT	PATH FORWARD PROJECTS
		1.4.1.04.03.03	FRS DESIGN	TL YOUNT	PATH FORWARD PROJECTS
		1.4.1.04.03.04	FRS PROCUREMENT/FAB/ CONSTRUCTION	TL YOUNT	PATH FORWARD PROJECTS
		1.4.1.04.03.05	FRS EQUIPMENT TEST	JR FREDERICKSON	PROCESS ENGINEERING
		1.4.1.04.03.06	FRS STARTUP/TRAINING	CA THOMPSON	FUEL HANDLING OPERATIONS
		1.4.1.04.03.07	FRS REGULATORY COMPLIANCE	LJ GARVIN	
		1.4.1.04.03.08	FUEL REMOVAL & TRANSPORTATION OPERATIONS	CA THOMPSON	FUEL HANDLING OPERATIONS
	1.4.1.04.04		SLUDGE REMOVAL PROJECT	MJ WIEMERS	K BASINS PROJECTS
		1.4.1.04.04.01	SLUDGE REMOVAL SYSTEM	FW MOORE	FACILITY SYSTEMS
		1.4.1.04.04.02	SLUDGE REMOVAL OPERATIONS	CT MILLER	K BASINS OPERATIONS
	1.4.1.04.05		DEBRIS REMOVAL PROJECT	MJ WIEMERS	K BASINS PROJECTS
		1.4.1.04.05.01	DEBRIS REMOVAL SYSTEM	DS TAKASUMI	PROCESS SYSTEM PROJECTS
		1.4.1.04.05.02	DEBRIS REMOVAL OPERATIONS	CT MILLER	K BASINS OPERATIONS
	1.4.1.04.06		WATER TREATMENT SYSTEM	MJ WIEMERS	K BASINS PROJECTS
		1.4.1.04.06.01	WATER TREATMENT SYSTEM	DS TAKASUMI	PROCESS SYSTEM PROJECTS
		1.4.1.04.06.02	WATER TREATMENT OPERATIONS	CT MILLER	K BASINS OPERATIONS
	1.4.1.04.07		DEACTIVATION PREPARATION	MJ WIEMERS	K BASINS PROJECTS
		1.4.1.04.07.01	DEACTIVATION PREPARATION	DL CHASE	K BASINS PROJECTS
1.4.1.05			MCO ACQUISITION	WD GALLO	PATH FORWARD PROJECTS

TABLE 3-2
WORK BREAKDOWN STRUCTURE INDEX AND PROGRAMMATIC RESPONSIBILITY ASSIGNMENT MATRIX

PROGRAM ELEMENT	ACTIVITY	COST ACCOUNT	TITLE	RESPONSIBLE MANAGER	RESPONSIBLE ORGANIZATION
	1.4.1.05.01		MCO ACQUISITION	WD GALLO	PATH FORWARD PROJECTS
		1.4.1.05.01.01	MCO ACQUISITION DEFINITION	JR FREDERICKSON	PROCESS ENGINEERING
		1.4.1.05.01.02	MCO PROJECT MGMT	WD GALLO	PATH FORWARD PROJECTS
		1.4.1.05.01.03	MCO DESIGN	WD GALLO	PATH FORWARD PROJECTS
		1.4.1.05.01.04	MCO FABRICATION	WD GALLO	PATH FORWARD PROJECTS
		1.4.1.05.01.05	TESTING/ QUALIFICATION MCOs	WD GALLO	PATH FORWARD PROJECTS
		1.4.1.05.01.06	MCO TOPICAL SAFETY REPORT	GC MOOERS	REG INTEG /PUBLIC INV
1.4.1.06			CASK/ TRANSPORTATION SYSTEM	WD GALLO	PATH FORWARD PROJECTS
	1.4.1.06.01		CASK/ TRANSPORTATION SYSTEM	WD GALLO	PATH FORWARD PROJECTS
		1.4.1.06.01.01	CASK/TRANS ACQUISITION DEFINITION	JR FREDERICKSON	PROCESS ENGINEERING
		1.4.1.06.01.02	CASK/TRANS PROJECT MGMT	WD GALLO	PATH FORWARD PROJECTS
		1.4.1.06.01.03	CASK & TRANS SYSTEM DESIGN	WD GALLO	PATH FORWARD PROJECTS
		1.4.1.06.01.04	CASK & TRANS SYSTEM FABRICATION	WD GALLO	PATH FORWARD PROJECTS
		1.4.1.06.01.05	TESTING & QUALIFICATION OF CASK	WD GALLO	PATH FORWARD PROJECTS
		1.4.1.06.01.06	TESTING & ORR OF TRANSPORTATION	WD GALLO	PATH FORWARD PROJECTS
		1.4.1.06.01.07	CASK/TRANS REGULATORY COMPLIANCE	GC MOOERS	REG INTEG /PUBLIC INV
		1.4.1.06.01.08	BASIN FACILITY UPGRADES FOR TRANSPORT	FW MOORE	FACILITY SYSTEMS
1.4.1.07			CANISTER STORAGE BUILDING	MK MAHAFFEY	PATH FORWARD PROJECTS

TABLE 3-2
WORK BREAKDOWN STRUCTURE INDEX AND PROGRAMMATIC RESPONSIBILITY ASSIGNMENT MATRIX

PROGRAM ELEMENT	ACTIVITY	COST ACCOUNT	TITLE	RESPONSIBLE MANAGER	RESPONSIBLE ORGANIZATION
	1.4.1.07.01		CANISTER STORAGE FACILITY	MK MAHAFFEY	PATH FORWARD PROJECTS
		1.4.1.07.01.01	CSB ACQUISITION	MK MAHAFFEY	PATH FORWARD PROJECTS
		1.4.1.07.01.02	CSB PROJECT MANAGEMENT	LE NILSEN	PATH FORWARD PROJECTS
		1.4.1.07.01.03	CANISTER STORAGE BUILDING DESIGN	MK MAHAFFEY	PATH FORWARD PROJECTS
		1.4.1.07.01.04	CANISTER STORAGE BUILDING CONSTRUCTION	JH MORTIMER	PATH FORWARD PROJECTS
		1.4.1.07.01.05	CSB STARTUP AND ORR	CA THOMPSON	FUEL HANDLING OPERATIONS
		1.4.1.07.01.06	CSB REGULATORY COMPLIANCE	GC MOOERS	REG INTEG /PUBLIC INV
	1.4.1.07.02		CANISTER STORAGE BUILDING OPERATIONS	CA THOMPSON	FUEL HANDLING OPERATIONS
		1.4.1.07.02.01	CSB - CONDUCT OF OPERATIONS	CA THOMPSON	FUEL HANDLING OPERATIONS
		1.4.1.07.02.02	OPERATIONS OF CANISTER STORAGE BUILDING	CA THOMPSON	FUEL HANDLING OPERATIONS
		1.4.1.07.02.03	WASTE HANDLING FOR CSB	CA THOMPSON	FUEL HANDLING OPERATIONS
		1.4.1.07.02.04	RECEIVE FUEL & SLUDGE	CA THOMPSON	FUEL HANDLING OPERATIONS
		1.4.1.07.02.05	INTER-FACILITY TRANSFER OF MCOs	CA THOMPSON	FUEL HANDLING OPERATIONS
		1.4.1.07.02.06	STAGE FUEL FOR DISPOSITION	CA THOMPSON	FUEL HANDLING OPERATIONS
1.4.1.08			CONDITIONING FACILITY	ME WITHERSPOON	PATH FORWARD PROJECTS
	1.4.1.08.01		CONDITIONING FACILITY ACQUISITION	ME WITHERSPOON	PATH FORWARD PROJECTS
		1.4.1.08.01.01	CONDITIONING FACILITY ACQUISITION DEFINITION	JR FREDERICKSON	SNF ENGINEERING
		1.4.1.08.01.02	PROCESS & TECHNOLOGY ACQUISITION	PA SCOTT	APPLIED TECHNOLOGY

TABLE 3-2
WORK BREAKDOWN STRUCTURE INDEX AND PROGRAMMATIC RESPONSIBILITY ASSIGNMENT MATRIX

PROGRAM ELEMENT	ACTIVITY	COST ACCOUNT	TITLE	RESPONSIBLE MANAGER	RESPONSIBLE ORGANIZATION
		1.4.1.08.01.03	CONDITIONING FACILITY PROJECT MGMT	ME WITHERSPOON	PATH FORWARD PROJECTS
		1.4.1.08.01.04	CONDITIONING FACILITY DESIGN	ME WITHERSPOON	PATH FORWARD PROJECTS
		1.4.1.08.01.05	CONDITIONING FACILITY CONSTRUCTION	ME WITHERSPOON	PATH FORWARD PROJECTS
		1.4.1.08.01.06	FACILITY START-UP & ORR	ME WITHERSPOON	PATH FORWARD PROJECTS
		1.4.1.08.01.07	CONDITIONING FACILITY REGULATORY COMPLIANCE	GC MOOERS	REG INTEG /PUBLIC INV
	1.4.1.08.02		CONDITIONING FACILITY OPS	CA THOMPSON	FUEL HANDLING OPERATIONS
		1.4.1.08.02.01	CONDUCT OF OPERATION CONDITIONING FACILITY	CA THOMPSON	FUEL HANDLING OPERATIONS
		1.4.1.08.02.02	OPERATION OF CONDITIONING FACILITY	CA THOMPSON	FUEL HANDLING OPERATIONS
		1.4.1.08.02.03	RECEIVE FUEL AND SLUDGE - CONDITIONING FACILITY	CA THOMPSON	FUEL HANDLING OPERATIONS
		1.4.1.08.02.04	PROCESS FUEL AND SLUDGE - CONDITIONING FACILITY	CA THOMPSON	FUEL HANDLING OPERATIONS
		1.4.1.08.02.05	RETURN FUEL AND SLUDGE TO STORAGE FACILITY	CA THOMPSON	FUEL HANDLING OPERATIONS
		1.4.1.08.02.06	WASTE HANDLING	ME WITHERSPOON	PATH FORWARD PROJECTS
1.4.1.09			OTHER HANFORD FUEL RETRIEVAL PROCESSING AND STORAGE	EW GERBER	SNF ENGINEERING
	1.4.1.09.01		OTHER HANFORD FUEL RETRIEVAL PROCESSING AND STORAGE	EW GERBER	SNF ENGINEERING
		1.4.1.09.01.01	PUREX FUEL	FW MOORE	FACILITY SYSTEMS
		1.4.1.09.01.02	BURIAL GROUNDS	RL MCCORMACK	SNF DISPOSITION ENG

TABLE 3-2
WORK BREAKDOWN STRUCTURE INDEX AND PROGRAMMATIC RESPONSIBILITY ASSIGNMENT MATRIX

PROGRAM ELEMENT	ACTIVITY	COST ACCOUNT	TITLE	RESPONSIBLE MANAGER	RESPONSIBLE ORGANIZATION
		1.4.1.09.01.03	T-PLANT	RL MCCORMACK	SNF DISPOSITION ENG
		1.4.1.09.01.04	PNL LABS, BUILDINGS 324, 325, 327	RL MCCORMACK	SNF DISPOSITION ENG
		1.4.1.09.01.05	308 ANNEX	RL MCCORMACK	SNF DISPOSITION ENG
		1.4.1.09.01.06	FFTF	RL MCCORMACK	SNF DISPOSITION ENG
		1.4.1.09.01.07	PFP	RL MCCORMACK	SNF DISPOSITION ENG
		1.4.1.09.01.08	N-BASIN FUEL	FW MOORE	FACILITY SYSTEMS

3.1.6 Waste Type Data

Waste type projections and anticipated volumes are provided as an integral aspect of the planning, scheduling, and budgeting process. Planned activities within the SNF Project contribute to the safe storage, treatment, or disposal of waste. It should be noted that spent nuclear fuel at Hanford is not waste and is considered Material as the type classification in the associated tables to this section. Assumptions are provided for the quantities identified in Tables 3-3 through 3-8. Assumptions follow:

- There are 24 m^3 low-level waste volume identified as a beginning inventory for FY 1996. This information was taken from the Held Waste Category in the 1995 Solid Waste Forecast. It is probable that this waste inventory will be shipped to the Solid Waste Division within the duration of the SNF Project. Currently, a shipment date is not assigned so the waste will be shown as carried until Project termination. All Low-Level Waste (LLW), Low-Level Mixed Waste (LLMW), Transuranic (TRU), and Hazardous (HAZ) waste volumes were projections from the 1995 Solid Waste Forecast.

  - FY 1996 Beginning Inventory for LLW represents heat exchangers in K Basin facilities (105 KE and 105 KW) which will remain in the buildings until deactivation. Deactivation is out of scope work for the SNF Project. The source for the volume was the FY 1995 Solid Waste Forecast.[2]

  - Other FY 1996 LLW is housekeeping waste, non-TRU ion exchange modules, and ion exchange columns.[1] This waste will be transferred to the Solid Waste Division.

  - FY 1996 LLMW is housekeeping and debris waste containing hazardous constituents. This waste will be transferred to the Solid Waste Division.

  - FY 1996 TRU waste generated consists of two ion exchange modules, cartridge filters, and ion exchange columns from the K Basins.[1] This waste will be transferred to the Solid Waste Division.

  - FY 1996 Hazardous waste generated is nonradioactive housekeeping and debris waste generated by K Basin Operations.[1] This waste will be transferred to the Solid Waste Division.

- 2,100 metric tones (MT) of spent nuclear fuel (material, not waste) will be transferred from the K Basins to the CSB, beginning in FY 1998 and finishing in FY 2000. The material will remain the responsibility of the SNF Project until CSB interim storage operations turnover. It is anticipated that Project facilities, with the exception of the CSB,

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[2] WHC Internal Report, C. D. Lucas to K. L. Hladek, "1995 Solid Waste Forecast Request," June 1995.

will be transferred to the Facilities Transition Projects organization. Waste generated from deactivation activities are not included in these waste type projections.

- The FY 1996 beginning material inventory of 2,100 MT of spent nuclear fuel is stored in KE and KW Basins. The source for the mass is the Hanford Irradiated Fuel Inventory Baseline.[3] Material received of 2.32 MT is TRIGA fuel (.02 MT) transferred from the 308 Building to the Interim Storage Area (near FFTF) and PWR/BWR fuel pins (2.3 MT) transferred from the 324 Building to the Interim Storage Area. The SNF Project will take ownership of the spent fuel after it is transferred.

- Beginning in December 1997, spent fuel is expected to be transferred to the CSB from the K Basins, with two years required for removal of all of the fuel. No work-off projections are available, but assuming a strictly linear work-off 9/24 x 2,102 MT = 788 MT would be shipped to the CSB in FY 1998.

- Assuming a linear fuel removal work-off, 12/24 x 2,102 MT = 1,050 MT of fuel would be shipped to the CSB in FY 1999.

- Assuming a linear fuel removal work-off, 3/24 x 2,102 MT = 263 MT of fuel would be shipped to the CSB in FY 2000.

• A total of 54.1 m^3 of sludge exists in the K Basins. Sludge includes corrosion products from fuel or basin structural materials plus dust or dirt from the surrounding environment that has accumulated over time to form a layer on the basin floors or in fuel canisters. Sludge is anticipated to be disposed as waste with the Tank Waste Remediation System. The disposed volumes will include water additions which will increase the volume.

- FY 1996 beginning inventory material of 54.1 m^3 is K Basin sludge.[4]

- Sludge shipments are not as well defined as the spent fuel. The current best estimate is that sludge will be shipped to the tank farms as liquid HLW. The Tank Waste Remediation System has reserved space in the tank farm system. Assuming that the sludge is shipped in the same time frame as the spent fuel, 9/24 x 54.1 = 20.3 m^3 would be shipped in FY 1998.

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[3] WHC-SD-CP-TI-175, "Hanford Irradiated Fuel Inventory Baseline," K. H. Bergsman, February 1993.

[4] WHC-SD-SNF-TI-009, "105-K Basin Material Design Basis Feed Description for Spent Nuclear Fuel Project Facilities (Draft)," W. L. Willis and A. N. Praga, March 1995.

- Assuming a linear sludge work-off in the same time frame as the spent fuel, 12/24 x 54.1 = 27.1 m^3 would be shipped in FY 1999.

- Assuming a linear sludge work-off in the same time frame as the spent fuel, 3/24 x 54.1 = 6.76 m^3 would be shipped in FY 2000.

- A total of 29.12864 MT of spent nuclear fuel (considered material), from other on-site storage locations other than the K Basins, will be transferred to the SNF Project from FY 1996 to FY 2005. The bulk of this fuel (26.8 MT) is from FFTF or the Shippingport power reactor. The remainder is currently stored in the 200 West Burial Grounds, T Plant, 324 Building, 308 Building, or PFP. This spent nuclear fuel will all be located at the 200 Area ISA prior to shipping for off-site storage or disposal.

  - 15.8 MT of material received is the Shippingport fuel now at T Plant. It would be shipped to the 200 Area ISA in FY 2000.

  - 11.0 MT of material received is fuel from the FFTF and TRIGA fuel at the 200 West Burial Grounds. The material will be shipped to the 200 Area ISA in FY 2000.

- FY 1997 through end of project wastes are from the same sources as for FY 1996.

TABLE 3-3

WASTE TYPE PROJECTION - FY 1996						
Waste Type	Beginning Inventory	Waste Material Generated	Waste Material Received	Waste Material Reduction	Waste Material Transferred	Waste Stored
HLW						
LLW (s)	24.0	383			383	
LLW (l)						
LLMW (s)		1.30			1.30	
LLMW (l)						
LLW (GTC3)						
TRU		31.5		31.5		
TRUM						
HAZ		2.60		2.60		
Landfill						
Asbestos						
San. (Liq)						
Material Spent Nuclear Fuel	2100 MT 54.1 m3		2.32 MT			

TABLE 3-4

WASTE TYPE PROJECTION - FY 1997						
Waste Type	Beginning Inventory	Waste Material Generated	Waste Material Received	Waste Material Reduction	Waste Material Transferred	Waste Stored
HLW						
LLW (s)	24.0	325			325	
LLW (l)						
LLMW (s)		1.30			1.30	
LLMW (l)						
LLW (GTC3)						
TRU		76.6			76.6	
TRUM						
HAZ						
Landfill						
Asbestos						
San. (Liq)						
Material Spent Nuclear Fuel	2102 MT 54.1 m3					

TABLE 3-5

WASTE TYPE PROJECTION - FY 1998						
Waste Type	Beginning Inventory	Waste Material Generated	Waste Material Received	Waste Material Reduction	Waste Material Transferred	Waste Stored
HLW						
LLW (s)	24.0	326			326	
LLW (l)						
LLMW (s)		1.30			1.30	
LLMW (l)						
LLW (GTC3)						
TRU		41.0			41.0	
TRUM						
HAZ		2.60			2.60	
Landfill						
Asbestos						
San. (Liq)						
Material Spent Nuclear Fuel	2102 MT 54.1 m3					

TABLE 3-6

WASTE TYPE PROJECTION - FY 1999						
Waste Type	Beginning Inventory	Waste Material Generated	Waste Material Received	Waste Material Reduction	Waste Material Transferred	Waste Stored
HLW						
LLW (s)	24.0	231			231	
LLW (l)						
LLMW (s)		1.30			1.30	
LLMW (l)						
LLW (GTC3)						
TRU		41.0			41.0	
TRUM						
HAZ		2.60			2.60	
Landfill						
Asbestos						
San. (Liq)						
Material Spent Nuclear Fuel	2102 MT 54.1 m3					

TABLE 3-7

WASTE TYPE PROJECTION - FY 2000						
Waste Type	Beginning Inventory	Waste Material Generated	Waste Material Received	Waste Material Reduction	Waste Material Transferred	Waste Stored
HLW						
LLW (s)	24.0	213			213	
LLW (l)						
LLMW (s)		1.30			1.30	
LLMW (l)						
LLW (GTC3)						
TRU		41.0			41.0	
TRUM						
HAZ		2.60			2.60	
Landfill						
Asbestos						
San. (Liq)						
Material Spent Nuclear Fuel	2102 MT 54.1 m3		15.8 MT			

TABLE 3-8

WASTE TYPE PROJECTION - FY 2001 to life cycle end date						
Waste Type	Beginning Inventory	Waste Material Generated	Waste Material Received	Waste Material Reduction	Waste Material Transferred	Waste Stored
HLW						
LLW (s)	24.0	150			174	
LLW (l)						
LLMW (s)		3.90			3.90	
LLMW (l)						
LLW (GTC3)						
TRU		41.0			41.0	
TRUM						
HAZ		7.80			7.80	
Landfill						
Asbestos						
San. (Liq)						
Material Spent Nuclear Fuel	2120 MT 54.1 m3		11.0 MT		2131 MT 54.1 m3	

TAB X

3.2 SCHEDULE BASELINE

In this section of the Program Plan, the multi-year schedule baseline, milestones, and milestone description sheets will be presented. Each product is further discussed in the appropriate subsection. The schedule baseline is zoned by the WBS and represents activities required to achieve the technical baseline.

3.2.1 Program Master Baseline Schedule

The Program Master Baseline Schedule (PMBS) begins to put the Project technical baseline into perspective. The schedule activities represent the time-phased logical sequence of work and deliverables that are necessary for the achievement of the SNF Project mission, objectives, and goals. This schedule represents the Project's contribution in achieving Hanford Strategic Plan goals. The PMBS is the SNF Project Multi-Year Baseline and is represented in Figure 3-14.

3.2.2 Milestone List

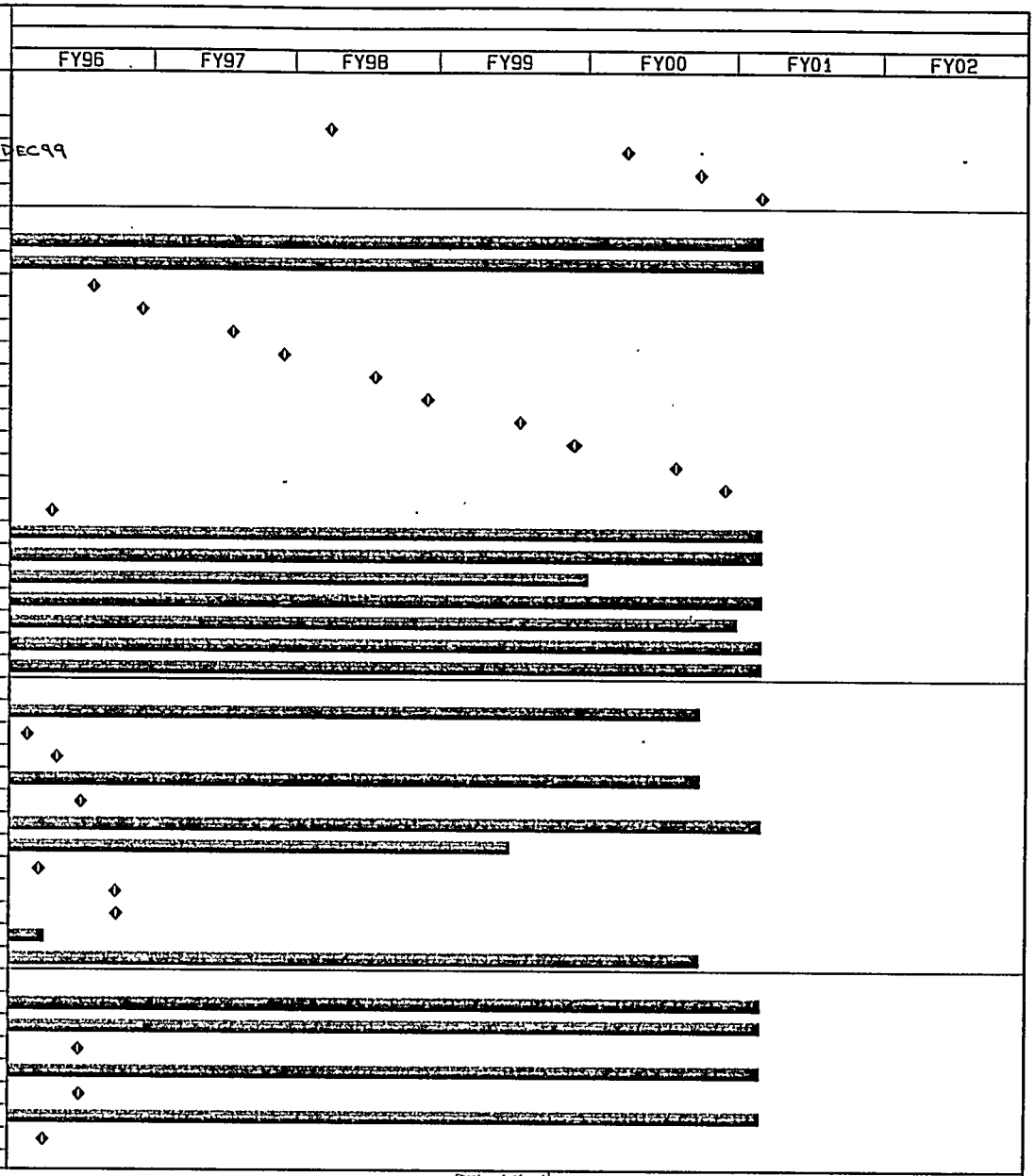
The milestone list consists of the TPA, HQ, and RL designated milestones for the SNF Project. These milestones represent identifiable end points that are the completion of significant activities that are critical to the accomplishment of the SNF Project mission. Each milestone is identified by a unique number that is traceable to the WBS and the schedule baseline data base. The milestone list is documented as Table 3-9.

3.2.3 Milestone Description Sheets

Included are the Milestone Description Sheets (MDS) for each uniquely identified milestone contained in the milestone list, Table 3-8. The MDS provides a statement of "what" constitutes successful completion of the schedule activities that lead up to the end item deliverable. The MDS describes the product or deliverable that will be generated and how notification of completion will be documented. MDSs are used as a measure of success or progress against the established schedule baseline. MDSs are documented as Figures 3-15.

FIGURE 3-14
PROGRAM MASTER BASELINE SCHEDULE
CONSISTING OF 4 PAGES

	EARLY START	EARLY FINISH
1.4.1 Spent Nuclear Fuel		
M/S Start Basin Fuel Removal	1JAN98	30DEC97
M/S Complete Basin Fuel Removal	3JAN00	~~30DEC99~~ 31DEC99
M/S Basin Fuel in Dry Storage	5JUL00	30JUN00
~~M/S Complete SNF K Basin Project~~	~~1DEC00~~	~~30NOV00~~
1.4.1.01 Project Integration		
Planning and Schedule Integration	20CT95	30NOV00
Management Controls	20CT95	30NOV00
M/S Issue FY 1998 ADS	30APR96	29APR96
M/S Issue the Final Program Plan (FY 97)	3SEP96	2SEP96
M/S Issue FY 1999 ADS	28APR97	25APR97
M/S Issue the Final Program Plan (FY 98)	3SEP97	2SEP97
M/S Issue FY 2000 ADS	27APR98	24APR98
M/S Issue the Final Program Plan (FY 99)	3SEP98	2SEP98
M/S Issue FY 2001 ADS	26APR99	23APR99
M/S Issue the Final Program Plan (FY 00)	3SEP99	2SEP99
M/S Issue FY 2002 ADS	1MAY00	28APR00
M/S Issue the Final Program Plan (FY 01)	4SEP00	1SEP00
M/S Sbmt WHC Aprvd BL Chng Rqst Incrp IPS into	16JAN96	15JAN96
Management Administration	20CT95	30NOV00
QA/ESSH	20CT95	30NOV00
Regulatory Programs	20CT95	30SEP99
Environmental Compliance & Permitting	20CT95	30NOV00
National Programs	20CT95	29SEP00
Regulatory Integration	3JAN95A	30NOV00
Public Involvement	20CT95	30NOV00
1.4.1.02 System Integration		
System Engineering	20CT95	30JUN00
M/S Issue FY 96 Tech Baseline	16NOV95	15NOV95
M/S Complete Conduct SNFP Systems Rqrmnts Rvw	31JAN96	30JAN96
Process Engineering	20CT95	30JUN00
M/S Issue SNF Process Flow Diagram	1APR96	31MAR96
Technology Acquisition	20CT95	30NOV00
Characterization	20CT95	31MAR99
M/S Complete Determine KE Sludge Composition	18DEC95	15DEC95
M/S Issue Drying Data Report for Process Def	1JUL96	28JUN96
M/S Complete Shipment of KE Fuel to Hot Cells	2JUL96	1JUL96
Environmental Impact Statment	20CT95	29DEC95
Technical Program Integration	20CT95	30JUN00
1.4.1.03 K-Basin Maintenance & Operations		
Operate K Basins	20CT95	30NOV00
Maintain K Basins	20CT95	30NOV00
M/S Update K Basins Maint Implementation Plan	27MAR96	26MAR96
Provide/Maintain K Basin Baseline Documentation	20CT95	30NOV00
M/S Cmplt K Basins Essential Dwgs & Sys Design	1APR96	29MAR96
K Basin Staff Training	20CT95	30NOV00
M/S Complete K Basin TIM Resolution	1JAN96	29DEC95



Plot Date 26SEP95
Data Date 20CT95
Project Start 10CT92
Project Finish 30SEP11

Summary Bar/Early Dates
Critical Designator
Progress Bar
Milestone/Flag Activity

OFFL

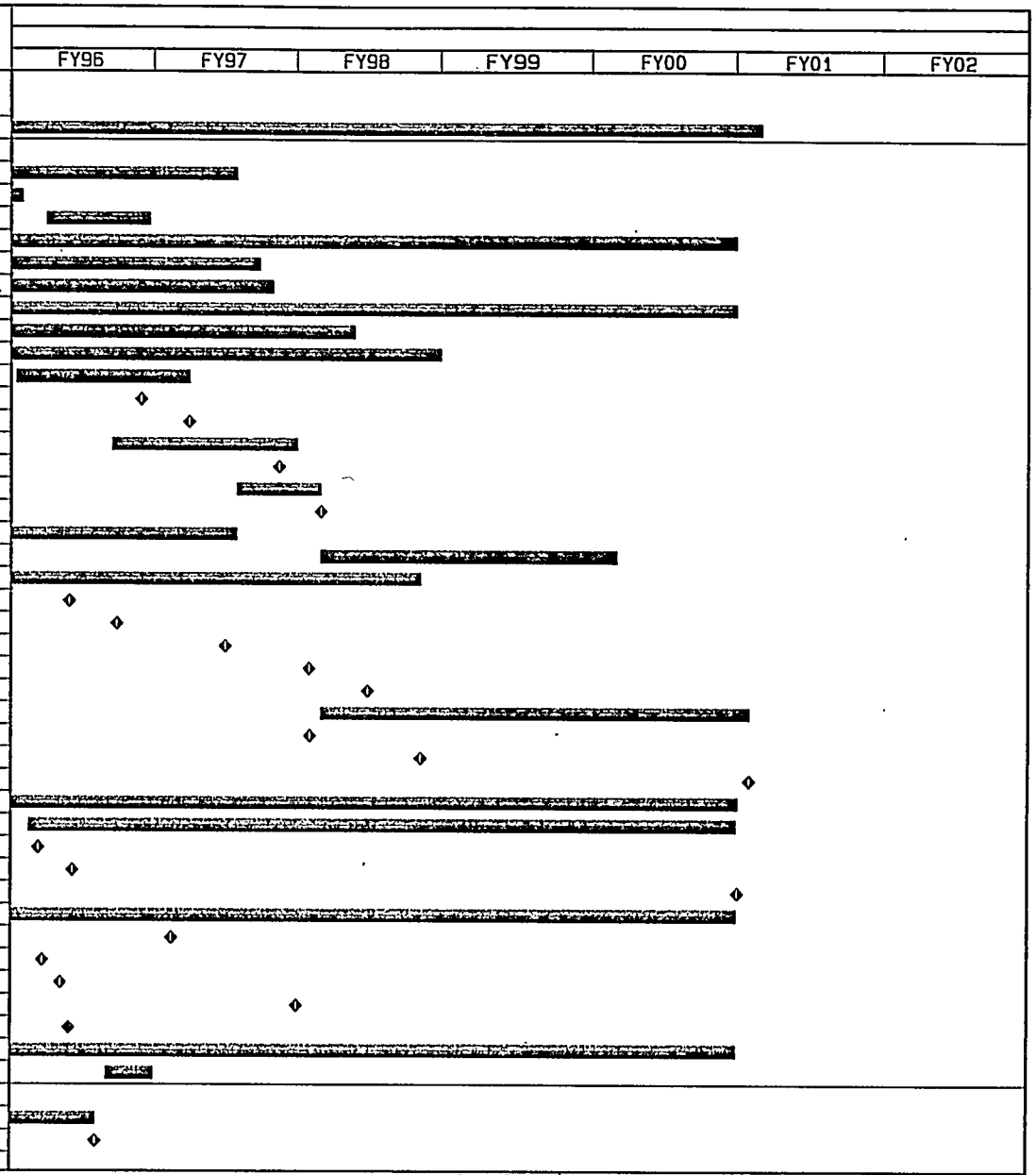
Sheet 1 of 4

Westinghouse Hanford Company
Spent Nuclear Fuel Project
Program Master Baseline Schedule

FY-96 MYPP (9/21/95)

Date	Revision	Checked	Approved

	EARLY START	EARLY FINISH
1.4.1.03 K-Basin Maintenance & Operations		
K Basin Management	20OCT95	30NOV00
1.4.1.04 K-Basin Mat'l. Rmvl/Clean-Up		
Essential Systems	20OCT95	30APR97
Roof Repairs	20OCT95	30OCT95
Trailer Moves	2JAN96	20SEP96
Cold Test Facility	20OCT95	29SEP00
Basin Personnel Facility Upgrades	20OCT95	26JUN97
Basin Facility Support Upgrades	20OCT95	30JUL97
Dose Reduction System	20OCT95	29SEP00
FRS Project Definition	20OCT95	27FEB98
FRS Project Management	20OCT95	30SEP98
FRS Design	16OCT95	30DEC96
M/S Complete Fuel Removal System Design	30AUG96	29AUG96
M/S Complete Fuel Removal System Mods Design	1JAN97	30DEC96
FRS Procure/Fab/Construction	17JUN96	1OCT97
M/S Complete Fuel Removal System Equip Install	18AUG97	15AUG97
FRS Startup/Training	1MAY97	1DEC97
M/S Cmplt Fuel Removal Sys Ready for Operation	2DEC97	1DEC97
FRS Regulatory Compliance	20OCT95	28APR97
FRS Removal & Transportation Operations	2DEC97	30NOV99
Sludge Removal System	1JUN95A	11AUG98
M/S Obtn Sgntr-Sludge MOU-TWRS WHC SNFP SNF-RL	1MAR96	29FEB96
M/S Estblsh KE Floor Sludge Tanks Acceptabilit	1JUL96	28JUN96
M/S Estblsh KE Canister Sludge Tank Acceptabil	1APR97	31MAR97
M/S Complete Readiness Assessment	3NOV97	31OCT97
M/S Estblsh KW Floor Sludge Tanks Acceptabilit	1APR98	31MAR98
Sludge Removal Operations	1DEC97	31OCT00
M/S Begin Sludge Transfer to TWRS	3NOV97	31OCT97
M/S Begin KE Floor Sludge Retreival	12AUG98	11AUG98
M/S Complete Sludge Removal	1NOV00	31OCT00
Debris Removal System	20OCT95	20OCT00
Debris Removal Operations	17NOV95	28SEP00
M/S Start Clean Debris at South Loadout Pit	12DEC95	11DEC95
M/S Complete South Loadout Pit Cleanup	11MAR96	8MAR96
M/S Complete Basin Debris Removal	3OCT00	20CT00
Water Treatment System	20CT95A	29SEP00
M/S Complete K East Basin Filtration Upgrades	18NOV96	15NOV96
M/S EPA Approve NOC	27DEC95	22DEC95
M/S Complete 105-KW BWFS - Ready for Operation	8FEB96	7FEB96
M/S Complete Water System Upgrade	1OCT97	30SEP97
M/S WHC Submit SARP to RL	29FEB96	29FEB96
Water Treatment Operations	20CT95	29SEP00
Deactivation Preparation	3JUN96	30SEP96
1.4.1.05 MCO Acquisition		
MCO Acquisition Definition	20CT95	6MAY96
M/S Complete MCO Testing	7MAY96	6MAY96



Plot Date 26SEP95
Data Date 20CT95
Project Start 1OCT92
Project Finish 30SEP11

(c) Primavera Systems, Inc.

Summary Bar/Early Dates
Critical Designator
Progress Bar
Milestone/Flag Activity

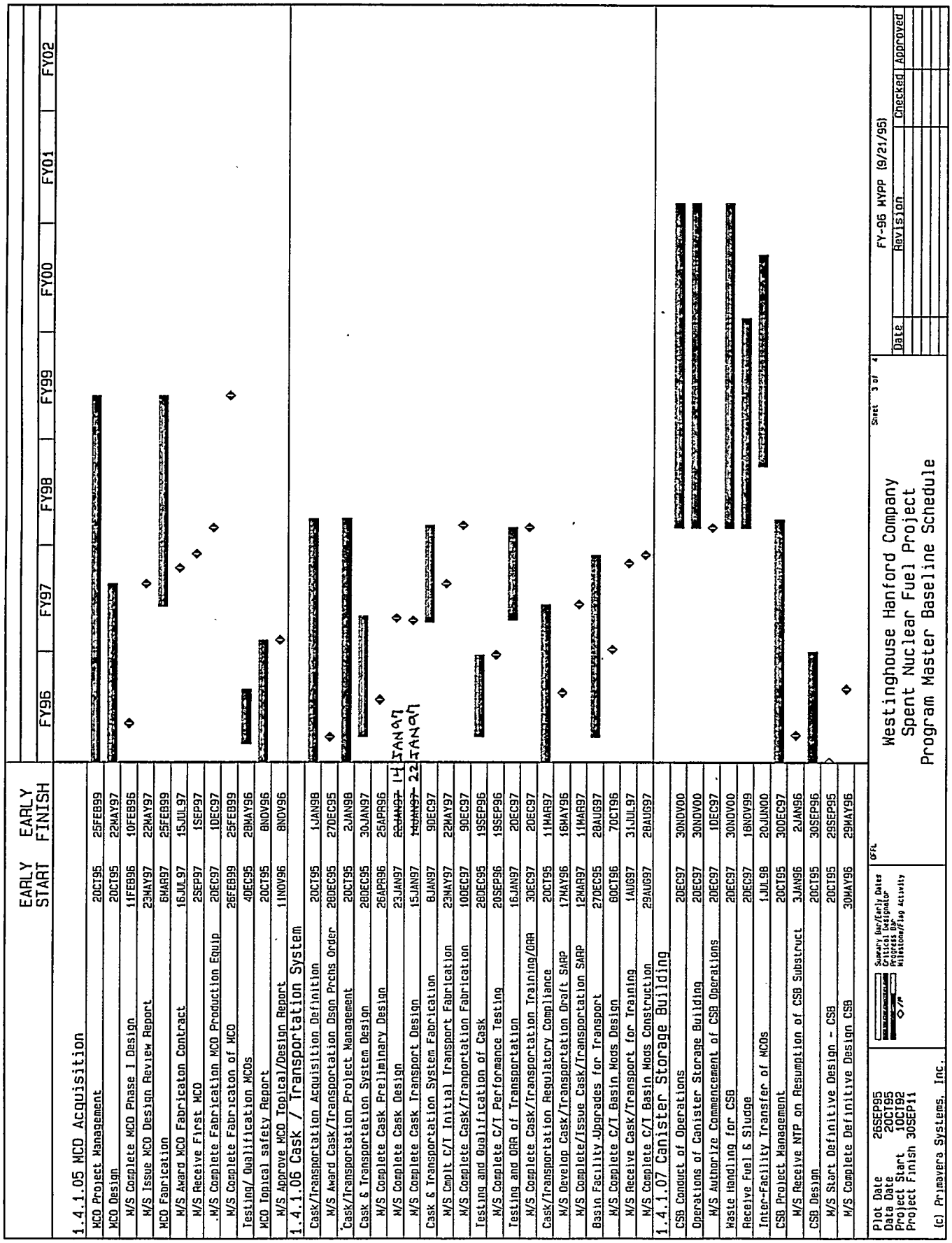
OFFL

Sheet 2 of 4

Westinghouse Hanford Company
Spent Nuclear Fuel Project
Program Master Baseline Schedule

FY-96 MYPP (9/21/95)

Date	Revision	Checked	Approved


EARLY START
EARLY FINISH
FY96
FY97
FY98
FY99
FY00
FY01
FY02
1.4.1.05 MCO Acquisition
MCO Project Management 20OCT95 25FEB99
MCO Design 20OCT95 22MAY97
M/S Complete MCO Phase 1 Design 11FEB96 10FEB96
M/S Issue MCO Design Review Report 23MAY97 22MAY97
MCO Fabrication 6MAR97 25FEB99
M/S Award MCO Fabricaton Contract 16JUL97 15JUL97
M/S Receive First MCO 2SEP97 1SEP97
M/S Complete Fabrication MCO Production Equip 20EC97 10EC97
M/S Complete Fabricaton of MCO 26FEB99 25FEB99
Testing/ Qualification MCOs 4DEC95 28MAY96
MCO Topical safety Report 20OCT95 8NOV96
M/S Approve MCO Topical/Design Report 11NOV96 8NOV96
1.4.1.06 Cask / Transportation System
Cask/Transportation Acquisition Definition 20OCT95 1JAN98
M/S Award Cask/Transportation Dsgn Prchs Order 28DEC95 27DEC95
Cask/Transportation Project Management 20OCT95 2JAN98
Cask & Transportation System Design 28DEC95 30JAN97
M/S Complete Cask Preliminary Design 26APR96 25APR96
M/S Complete Cask Design 23JAN97 22JAN97
M/S Complete Cask Transport Design 15JAN97 14JAN97
Cask & Transportation System Fabrication 8JAN97 9DEC97
M/S Cmplt C/T Initial Transport Fabrication 23MAY97 22MAY97
M/S Complete Cask/Tranportation Fabrication 10DEC97 9DEC97
Testing and Qualification of Cask 28DEC95 19SEP96
M/S Complete C/T Performance Testing 20SEP96 19SEP96
Testing and OAR of Transportation 16JAN97 20EC97
M/S Complete Cask/Transportation Training/OAR 30EC97 20EC97
Cask/Transportation Regulatory Compliance 20OCT95 11MAR97
M/S Develop Cask/Transportation Draft SARP 17MAY96 16MAY96
M/S Complete/Issue Cask/Transportation SARP 12MAR97 11MAR97
Basin Facility Upgrades for Transport 27DEC95 28AUG97
M/S Complete C/T Basin Mods Design 8OCT96 7OCT96
M/S Receive Cask/Transport for Training 1AUG97 31JUL97
M/S Complete C/T Basin Mods Construction 29AUG97 28AUG97
1.4.1.07 Canister Storage Building
CSB Conduct of Operations 2DEC97 30NOV00
Operations of Canister Storage Building 2DEC97 30NOV00
M/S Authorize Commencement of CSB Operations 2DEC97 1DEC97
Waste Handling for CSB 2DEC97 30NOV00
Receive Fuel & Sludge 2DEC97 18NOV99
Inter-Facility Transfer of MCOs 1JUL98 20JUN00
CSB Project Management 20OCT95 30DEC97
M/S Receive NTP on Resumption of CSB Substruct 3JAN96 2JAN96
CSB Design 20OCT95 30SEP96
M/S Start Definitive Design - CSB 20OCT95 29SEP95
M/S Complete Definitive Design CSB 30MAY96 29MAY96
Plot Date 26SEP95
Data Date 20CT95
Project Start 10CT92
Project Finish 30SEP11
Summary Bar/Early Dates
Critical Activity
Milestone/Flag Activity
(c) Primavera Systems, Inc.
DFL
Sheet 3 of 4
Westinghouse Hanford Company
Spent Nuclear Fuel Project
Program Master Baseline Schedule
FY-96 WYPP (9/21/95)
Date
Revision
Checked
Approved

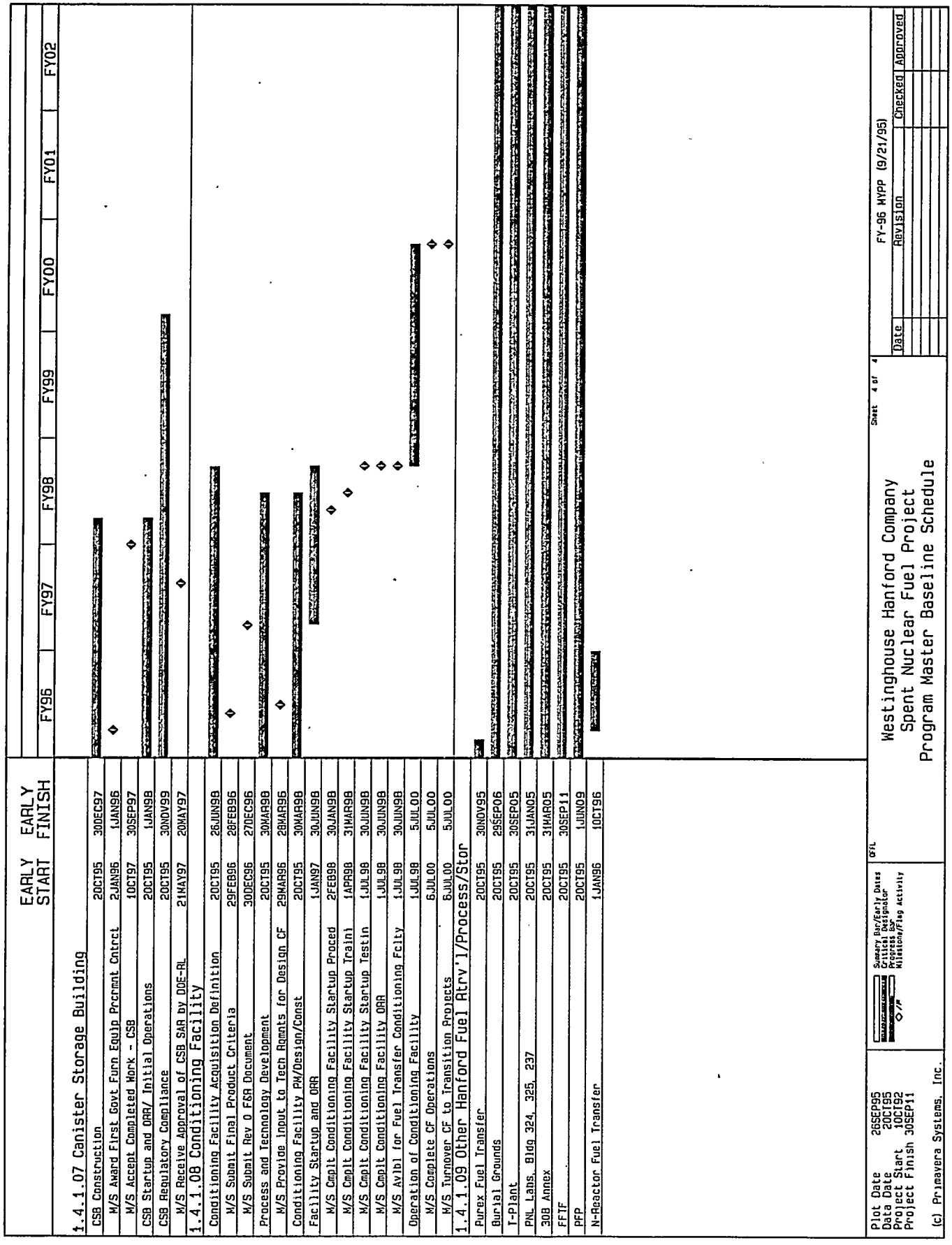

EARLY START
EARLY FINISH
FY96
FY97
FY98
FY99
FY00
FY01
FY02
1.4.1.07 Canister Storage Building
CSB Construction 20OCT95 30DEC97
M/S Award First Govt Furn Equip Prcmnt Cntrct 2JAN96 1JAN96
M/S Accept Completed Work - CSB 10CT97 30SEP97
CSB Startup and ORR/ Initial Operations 20OCT95 1JAN98
CSB Regulatory Compliance 20OCT95 30NOV99
M/S Receive Approval of CSB SAR by DOE-RL 21MAY97 20MAY97
1.4.1.08 Conditioning Facility
Conditioning Facility Acquisition Definition 20OCT95 26JUN98
M/S Submit Final Product Criteria 29FEB96 28FEB96
M/S Submit Rev 0 FSA Document 30DEC96 27DEC96
Process and Technology Development 20OCT95 30MAR98
M/S Provide Input to Tech Reqmts for Design CF 29MAR96 28MAR96
Conditioning Facility PM/Design/Const 20OCT95 30MAR98
Facility Startup and ORR 1JAN97 30JUN98
M/S Cmplt Conditioning Facility Startup Proced 2FEB98 30JAN98
M/S Cmplt Conditioning Facility Startup Train1 1APR98 31MAR98
M/S Cmplt Conditioning Facility Startup Testin 1JUL98 30JUN98
M/S Cmplt Conditioning Facility ORR 1JUL98 30JUN98
M/S Avlbl for Fuel Transfer Conditioning Fclty 1JUL98 30JUN98
Operation of Conditioning Facility 1JUL98 5JUL00
M/S Complete CF Operations 6JUL00 5JUL00
M/S Turnover CF to Transition Projects 6JUL00 5JUL00
1.4.1.09 Other Hanford Fuel Rtrv'l/Process/Stor
Purex Fuel Transfer 20OCT95 30NOV95
Burial Grounds 20OCT95 29SEP06
T-Plant 20OCT95 30SEP05
PNL Labs, Bldg 324, 325, 237 20OCT95 31JAN05
308 Annex 20OCT95 31MAR05
FFTF 20OCT95 30SEP11
PFP 20OCT95 1JUN09
N-Reactor Fuel Transfer 1JAN96 10CT96
Plot Date 26SEP95
Data Date 20CT95
Project Start 10CT92
Project Finish 30SEP11
(c) Primavera Systems, Inc.
Summary Bar/Early Dates
Critical Activity
Progress Bar
Milestone/Flag Activity
DFL
Sheet 4 of 4
Westinghouse Hanford Company
Spent Nuclear Fuel Project
Program Master Baseline Schedule
FY-96 MYPP (9/21/95)
Date
Revision
Checked
Approved

TABLE 3-8
MILESTONE LIST

Milestone Type*	Control Number	Milestone Description	Milestone Completion Date
DOE-RL	S07-96-010	START DEFINITIVE DESIGN - CANISTER STORAGE BUILDING	02OCT95
DOE-RL	S07-96-015	START OF PROCUREMENT	01JAN96
DOE-RL	S04-96-600	COMPLETE K EAST BASIN FILTRATION UPGRADES	15NOV95
DOE-RL	S02-96-105	ISSUE FY 1996 TECHNICAL BASELINE DOCUMENT	15NOV95
DOE-RL	S04-96-505	START CLEANUP DEBRIS AT SOUTH LOAD-OUT PIT	12DEC95
DOE-RL	S02-96-430	COMPLETE DETERMINATION OF KE SLUDGE COMPOSITION	15DEC95
DOE-RL	S04-96-609	TRANSMIT KW AIR PERMIT NOC WRITTEN APPLICATION TO WDOH (EPA Approve NOC)	22DEC95
DOE-RL	S06-96-001	AWARD CASK/TRANSPORTATION DESIGN PURCHASE ORDER	27DEC95
DOE-RL	S01-96-907	SUBMIT CHANGE REQUEST FOR SNFP INITIATION OF IPS	15JAN96
DOE-RL	S02-96-110	COMPLETE CONDUCT SNFP SYSTEMS REQUIREMENTS REVIEW	30JAN96
DOE-RL	S04-96-601	COMPLETE 105-KW BWFS - READY FOR OPERATION	07FEB96
DOE-RL	S05-96-006	COMPLETE MULTI-CANISTER OVERPACK (MCO) PHASE 1 DESIGN	10FEB96
DOE-RL	S08-96-002	SUBMIT FINAL PRODUCT CRITERIA	28FEB96
DOE-RL	S04-96-608	WHC SUBMIT SARP TO RL	29FEB96
DOE-RL	S04-96-107	OBTAIN SLUDGE MOU SIGNATURE BY TWRS, SNFP (WHC), & SFD (RL)	29FEB96
DOE-RL	S04-96-502	COMPLETE SOUTH LOADOUT PIT CLEANUP	08MAR96
DOE-RL	S07-96-025	RECEIVE NOTICE TO PROCEED ON RESUMPTION OF CSB SUBSTRUCTURE	02JAN96
DOE-RL	S03-96-049	UPDATE K BASINS MAINTENANCE IMPLEMENTATION PLAN	26MAR96
DOE-RL	S08-96-003	PROVIDE INPUT TO TECHNICAL REQUIREMENTS FOR DESIGN - CONDITIONING	28MAR96
DOE-RL	S03-96-048	COMPLETE K BASINS ESSENTIAL DRAWINGS AND SYS DESCRIPTION	29MAR96
DOE-RL	S03-96-039	COMPLETE K BASIN TIM RESOLUTION	29DEC95
DOE-RL	S06-96-005	COMPLETE CASK PRELIMINARY DESIGN	25APR96
DOE-RL	S01-96-111	ISSUE FY 1998 ACTIVITIES DATA SHEETS	29APR96

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

TABLE 3-8
MILESTONE LIST

Milestone Type*	Control Number	Milestone Description	Milestone Completion Date
DOE-RL	S05-96-007	COMPLETE MCO TESTING	06MAY96
DOE-RL	S06-96-007	DEVELOP CASK/TRANSPORTATION DRAFT SARP	16MAY96
DOE-RL	S07-96-011	COMPLETE DEFINITIVE DESIGN - CANISTER STORAGE BUILDING	29MAY96
DOE-RL	S02-96-425	ISSUE DRYING DATA REPORT FOR PROCESS DEFINITION	28JUN96
DOE-RL	S04-96-110	ESTABLISH ACCEPTABILITY OF 105-KE FLOOR SLUDGE BY TWRS	28JUN96
DOE-RL	S02-96-415	COMPLETE SHIPMENT OF KE FUEL AND CANISTER SLUDGE TO HOT CELLS	01JUL96
DOE-RL	S04-96-303	COMPLETE FUEL REMOVAL SYSTEM DESIGN	29AUG96
DOE-RL	S01-96-211	ISSUE THE FINAL PROGRAM PLAN (FY 97)	02SEP96
DOE-RL	S06-96-010	COMPLETE CASK/TRANSPORTATION PERFORMANCE TESTING	19SEP96
DOE-RL	S02-96-225	ISSUE SNF PROCESS FLOW DIAGRAM	31MAR96
DOE-RL	S06-97-001	COMPLETE CASK/TRANSPORTATION BASIN MODS DESIGN	07OCT96
DOE-RL	S05-97-004	APPROVE MCO TOPICAL/DESIGN REPORT	08NOV96
DOE-RL	S08-97-004	SUBMIT REV 0 F&R DOCUMENT	27DEC96
DOE-RL	S04-97-301	COMPLETE FUEL REMOVAL SYSTEM MODIFICATIONS DESIGN	30DEC96
DOE-RL	S06-97-003	COMPLETE CASK DESIGN	14JAN97
DOE-RL	S06-97-002	COMPLETE CASK TRANSPORT DESIGN	22JAN97
DOE-RL	S06-97-005	COMPLETE/ISSUE CASK/TRANSPORTATION SARP	11MAR97
DOE-RL	S04-97-115	ESTABLISH ACCEPTABILITY OF 105-KW CANISTER SLUDGE BY TWRS	31MAR97
DOE-RL	S01-97-111	ISSUE FY 99 ACTIVITY DATA SHEETS	25APR97
DOE-RL	S07-97-026	RECEIVE APPROVAL OF CSB SAR BY DOE-RL	20MAY97
DOE-RL	S06-97-006	COMPLETE CASK/TRANSPORTATION INITIAL TRANSPORT FABRICATION	22MAY97
DOE-RL	S05-97-007	ISSUE MCO DESIGN REVIEW REPORT	22MAY97
DOE-RL	S05-97-008	AWARD MCO FABRICATION CONTRACT	15JUL97

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

TABLE 3-8
MILESTONE LIST

Milestone Type*	Control Number	Milestone Description	Milestone Completion Date
DOE-RL	S06-97-010	RECEIVE CASK/TRANSPORT FOR TRAINING	31JUL97
DOE-RL	S04-97-303	COMPLETE FUEL REMOVAL SYSTEM EQUIPMENT INSTALLATION	15AUG97
DOE-RL	S06-97-009	COMPLETE CASK/TRANSPORTATION BASIN MODS CONSTRUCTION	28AUG97
DOE-RL	S01-97-211	ISSUE FINAL PROGRAM PLAN (FY-98)	02SEP97
DOE-RL	S05-97-010	RECEIVE FIRST MCO	02SEP97
DOE-RL	S04-97-607	COMPLETE WATER SYSTEM UPGRADE	30SEP97
DOE-RL	S07-97-014	ACCEPT COMPLETED WORK - CANISTER STORAGE BUILDING	30SEP97
DOE-RL	S04-97-117	COMPLETE READINESS ASSESSMENT - SLUDGE TRANSFER FROM 105 K EAST BASIN TO TWRS	31OCT97
DOE-RL	S04-98-205	BEGIN SLUDGE TRANSFER FROM 105 K EAST BASIN TO TWRS	03NOV97
DOE-RL	S07-98-022	AUTHORIZE COMMENCEMENT OF CSB OPERATIONS	01DEC97
DOE-RL	S04-98-304	COMPLETE FUEL REMOVAL SYSTEM - READY FOR OPERATIONS	01DEC97
DOE-RL	S05-98-002	COMPLETE FABRICATION MCO PRODUCTION EQUIPMENT	01DEC97
DOE-RL	S06-98-005	COMPLETE CASK/TRANSPORTATION TRAINING/ORR	02DEC97
DOE-RL	S06-98-006	COMPLETE CASK/TRANSPORTATION FABRICATION	09DEC97
DOE-HQ-TPA	S00-98-901	START BASIN FUEL REMOVAL	30DEC97
DOE-RL	S08-98-001	COMPLETE CONDITIONING FACILITY STARTUP PROCEDURES	30JAN98
DOE-RL	S08-98-003	COMPLETE CONDITIONING FACILITY STARTUP TRAINING	31MAR98
DOE-RL	S04-98-120	ESTABLISH KW FLOOR SLUDGE DISPOSITION PATH	31MAR98
DOE-RL	S01-98-111	ISSUE FY 00 ACTIVITY DATA SHEETS	24APR98
DOE-RL	S08-98-006	COMPLETE CONDITIONING FACILITY OPERATIONAL READINESS REVIEW	30JUN98
DOE-RL	S08-98-005	COMPLETION OF CONDITIONING FACILITY STARTUP TESTING	30JUN98
DOE-RL-TPA	S08-98-007	AVAILABLE FOR FUEL TRANSFER - CONDITIONING FACILITY	30JUN98
DOE-RL	S04-98-210	BEGIN 105-K EAST FLOOR SLUDGE RETRIEVAL	12AUG98

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

TABLE 3-8
MILESTONE LIST

Milestone Type*	Control Number	Milestone Description	Milestone Completion Date
DOE-RL	S01-98-211	ISSUE FINAL PROGRAM PLAN (FY-99)	02SEP98
DOE-RL	S05-99-001	COMPLETE FABRICATION OF MCO	25FEB99
DOE-RL	S01-99-111	ISSUE FY 01 ACTIVITY DATA SHEETS	23APR99
DOE-RL	S01-99-211	ISSUE FINAL PROGRAM PLAN (FY-00)	02SEP99
DOE-HQ-TPA	S00-00-902	COMPLETE BASIN FUEL REMOVAL	31DEC99
DOE-RL	S01-00-111	ISSUE FY 02 ACTIVITY DATA SHEETS	28APR00
DOE-HQ	S00-00-903	BASIN FUEL IN DRY STORAGE	30JUN00
DOE-RL	S08-00-002	TURNOVER CONDITIONING FACILITY TO TRANSITION PROJECTS	05JUL00
DOE-RL	S08-00-001	COMPLETE CF OPERATIONS	05JUL00
DOE-RL	S01-00-211	ISSUE FINAL PROGRAM PLAN (FY-01)	01SEP00
DOE-RL	S04-00-507	COMPLETE BASIN DEBRIS REMOVAL	02OCT00
DOE-RL-TPA	S04-01-215	COMPLETE SLUDGE REMOVAL	31OCT00

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

FIGURE 3-15
MILESTONE DESCRIPTION SHEETS
CONSISTING OF 81 PAGES

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Start Definitive Design - Canister Storage Building	Date: 08/24/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.07.01	Due Date: 10/02/95
Control Number: S07-96-010	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number _____	X Report ☐ Letter X Drawings ☐ Other (specify)	☐ DOE-HQ X DOE-RL Other (specify)

Milestone Description: Allows the A/E to begin working on the CSB Definitive Design.

Description of what constitutes completion of this milestone:
This milestone is complete when the A/E contract has been negotiated, or appropriate contractual direction issued to Fluor, the Performance Specification (WHC-S425 Rev 0), the QAP (WHC-SD-W379-QAPP-001 Rev 0), CDR comments submitted on A/E - tracking in place, and PSE (WHC-SD-PSE-002 Rev 0) are approved by WHC.

Note: Contingent upon receiving funds October 1, 1995

Cost Account Manager — Date M. K. Mahaffey 9/25/95	Program/Project Manager — Date J. C. Fulton 9-25-95
Program Element Manager — Date M. E. Witherspoon	DOE Monitor — Date J. B. Sullivan 9-25-95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Start of Procurement	Date: 09/08/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.07.01	Due Date: 1/02/96
Control Number: S07-96-015	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number _____	☐ Report X Letter ☐ Drawings ☐ Other (specify)	☐ DOE-HQ X DOE-RL Other (specify)

Milestone Description: Award procurement of such GFE items as tubes, bellows, crane, and other materials supporting the construction of the CSB.

Description of what constitutes completion of this milestone:
This milestone is complete when the contract is awarded for the first GFE procured equipment. Procurement schedule must support construction completion schedule (i.e. no delays in construction due to lack of GFE equipment).

Cost Account Manager	Date	Program/Project Manager	Date
M. K. Mahaffey	9/25/95	J. C. Fulton	9-25-95
Program Element Manager	Date	DOE Monitor	Date
M. E. Witherspoon	9/25/95	J. B. Sullivan	9-25-95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete K East Basin Filtration Upgrades	Date: 8/22/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.04.06.01	Due Date: 11/15/95
Control Number: S04-96-600	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number _____	☐ Report ☐ Letter ☐ Drawings X Other (specify) Completed Acceptance of Completed Work Form	☐ DOE-HQ X DOE-RL Other (specify)

Milestone Description:

Complete all work associated with the K East Filtration Upgrades project. This will be documented on a Acceptance of Completed Work form part I.

Description of what constitutes completion of this milestone:

Operations and Projects both will sign off the Acceptance of Completed Work form when the job is ready for turnover.

Cost Account Manager — Date	Program/Project Manager — Date
D. S. Takasumi D S Takasumi 9/25/95	J. C. Fulton J C Fulton 9-26-95
Program Element Manager — Date	DOE Monitor — Date
M. J. Wiemers M J Wiemers 9/25/95	D. H. Splett for 9/26/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Issue FY 1996 Technical Baseline Document	Date: 8/16/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.02.01.01.01.01	Due Date: 11/15/95
Control Number: S02-96-105	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ ☒ DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal ☒ DOE ☐ RCRA ☐ TPA Number	☐ Report ☐ Letter ☐ Drawings ☒ Other (specify) Document	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description: WHC approve and issue the FY 1996 Technical Baseline Document

Description of what constitutes completion of this milestone:

Approval by WHC and submittal of document to RL

Cost Account Manager — Date J. C. Womack Walker for 9/25/95	Program/Project Manager — Date J. C. Fulton 9-26-95
Program Element Manager — Date E. W. Gerber 9/25/95	DOE Monitor — Date 9/26/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Start Cleanup Debris at South Load-Out Pit	Date: 8/17/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.04.05.01.02	Due Date: 12/12/95
Control Number: S04-96-505	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ [X] DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal [X] DOE ☐ RCRA ☐ TPA Number _____	☐ Report [X] Letter ☐ Drawings ☐ Other (specify)	☐ DOE-HQ [X] DOE-RL ☐ Other (specify)

Milestone Description: Begin Cleanup of the 105K East Basin South Loadout Pit of debris and canisters.

Description of what constitutes completion of this milestone: This milestone shall be complete when the first canister is retrieved from the south loadout pit, cleaned, and removed from the basin.

Cost Account Manager Date D. S. Takasumi 9/26/95	Program/Project Manager Date J. C. Fulton 9-26-95
Program Element Manager Date M. J. Wiemers 9/24/95	DOE Monitor Date O. M. Holgado 9/26/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete Determination of KE Floor Sludge Composition	Date: 8/23/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.02.01.04.08.01	Due Date: 12/15/95
Control Number: S02-96-430	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ ☒ DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal ☒ DOE ☐ RCRA ☐ TPA Number	☒ Report ☐ Letter ☐ Drawings ☐ Other (specify)	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description:

Complete the analysis of KE floor sludge test data and prepare a preliminary lab data report

Description of what constitutes completion of this milestone:

WHC approve and issue report to RL

Cost Account Manager for R. P. Omberg — Date 9/25/95	Program/Project Manager J. C. Fulton — Date 9-26-95
Program Element Manager E. W. Gerber — Date 9/25/95	DOE Monitor J. S. Shum — Date 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Transmit KW Basin Air Permit NOC Written Application to WDOH (EPA Approve NOC)	Date: 9/19/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.04.06.01	Due Date: 12/22/95
Control Number: S04-96-609	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number _____	☐ Report X Letter ☐ Drawings ☐ Other (specify)	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description:
Transmit written Notice of Construction for KW Basin Filtration Upgrades main basin water system piping modification work to the Washington State Department of Health for approval. The required approval may come in a verbal approval from a site wide air permitting meeting, in which case this milestone would not apply.

Description of what constitutes completion of this milestone:
Transmittal of NOC application letter to RL for KW Basin Water Recirc. Piping Mods.

Cost Account Manager	Date	Program/Project Manager	Date
for D. S. Takasumi	9/25/95	J. C. Fulton	9-26-95
Program Element Manager	Date	DOE Monitor	Date
M. J. Wiemers	9/25/95	D. H. Splett	9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Award Cask/Transportation Design Purchase Order	Date: 09/14/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.06.01.01.04.02	Due Date: 12/27/95
Control Number: S06-96-001	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number _____	Report Letter EDT Drawings X Other (specify) Notice of Award	☐ DOE-HQ X DOE-RL Other (specify)

Milestone Description: Notice of Award to Contractor for Cask/Transportation System Design. (Completion of Activity: FBW027)

Description of what constitutes completion of this milestone: Completion of the Bid/Award process; preparation and issuance of the Notice of Award.

Cost Account Manager Date W. D. Gallo 9/25/95	Program/Project Manager Date J. C. Fulton 9/25/95
Program Element Manager Date M. E. Witherspoon 9/25/95	DOE Monitor Date K. M. Schierman 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Submit Change Request for Spent Nuclear Fuel Project Initiation of Integrated Process Strategy	Date: 9/18/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.01	Due Date: 01/15/96
Control Number: S01-96-907	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number _____	☐ Report ☐ Letter ☐ Drawings X Other (specify) Change request	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description:

Submit final WHC approved change request package incorporating cost, schedule, and technical scope changes necessary to implement the Integrated Process Strategy (IPS) for each of the Spent Nuclear Fuel Project sub-projects.

Description of what constitutes completion of this milestone:

A letter from Spent Nuclear Fuel Project Management accompanying the change request package for the implementation of the Integrated Process Strategy (IPS).

Cost Account Manager	Date	Program/Project Manager	Date
J. L. Denning	9-25-95	J. C. Fulton	9-26-95
Program Element Manager	**Date**	**DOE Monitor**	**Date**
J. L. Denning	9-25-95	G. R. Schroeder	9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete Conduct SNF Project Systems Requirements Review	Date: 8/17/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.02.01.01.01.01	Due Date: 1/30/96
Control Number: S02-96-110	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ ☒ DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal ☒ DOE ☐ RCRA ☐ TPA Number	☐ Report ☐ Letter ☐ Drawings ☒ Other (specify)	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description:

Complete an SNF Project SRR in accordance with a plan to be developed by WHC and approved by RL by October 5, 1995.

Description of what constitutes completion of this milestone:

SNF Project presents results of requirements review to WHC and RL senior management.

Cost Account Manager — Date J. C. Womack wcallam for — 9/25/95	Program/Project Manager — Date J. C. Fulton — 9-26-95
Program Element Manager — Date E. W. Gerber — 9/25/95	DOE Monitor — Date — 9/26/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete 105KW BWFS - Ready for Operation	Date: 8/22/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.04.06.01	Due Date: 02/07/96
Control Number: S04-96-601	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number _____	☐ Report ☐ Letter ☐ Drawings X Other (specify) Completed Acceptance of Completed Work form	☐ DOE-HQ X DOE-RL Other (specify)

Milestone Description:

Complete all work associated with the K West Filtration Upgrades project. This will be documented on a Acceptance of Completed Work form part I.

Description of what constitutes completion of this milestone:

Operations and Projects both will sign off the Acceptance of Completed Work form when the job is ready for turnover.

Cost Account Manager / Date for D. S. Takasumi 5/25/95	Program/Project Manager / Date J. C. Fulton 9-26-95
Program Element Manager / Date M. J. Wiemers 5/25/95	DOE Monitor / Date D. H. Splett 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete Multi-Canister Overpack (MCO) Phase I Design	Date: 09/13/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.05.01.03.02.01	Due Date: 02/10/96
Control Number: S05-96-006 (Schedule ID: FAWA251.1)	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	☐ Report ☐ Letter ☐ Drawings X Other (specify) Design Pkg; EDT	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description: Release of Phase I Design Package (in accordance with Statement of Work requirements).

Description of what constitutes completion of this milestone: Issuance of signed off design package to release station. Signed-off WHC EDT for Release

Cost Account Manager W. D. Gallo — Date 9/26/95	Program/Project Manager J. C. Fulton — Date 9-25-95
Program Element Manager M. E. Witherspoon — Date 9/26/95	DOE Monitor K. M. Schierman — Date 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Submit Final Product Criteria	Date: 9/18/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.08.01.01	Due Date: 2/28/96
Control Number: S08-96-002	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal ☒ DOE ☐ RCRA ☐ TPA Number _____	X Report ☐ Letter ☐ Drawings ☐ Other (specify)	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description:

This document describes the product criteria used as a design basis for the fuel conditioning facility. The document will specify product characteristics which must be provided by the process system that will be implemented, including the basis for each criteria.

Description of what constitutes completion of this milestone:

Completion and Release of the Final Product Criteria Document.

Cost Account Manager — Date J. R. Frederickson 9/25/95	Program/Project Manager — Date J. C. Fulton 9-25-95
Program Element Manager — Date M. E. Witherspoon 9/25/95	DOE Monitor — Date G. Trenchard 9-25-95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: WHC Submit SARP to RL	Date: 9/19/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.04.06.01	Due Date: 2/29/96
Control Number: S04-96-608	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	X Report ☐ Letter ☐ Drawings ☐ Other (specify)	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description: WHC to complete the Safety Analysis Report for Packaging (SARP) and submit to DOE-RL for approval. The SARP will support transfer of spent filters from the K Basin Water Treatment System in ECO ROK 25-11 Overpack assemblies.

Description of what constitutes completion of this milestone:
Submittal of ECO ROK Overpack SARP to RL for approval.

Cost Account Manager for D. S. Takasumi	Date 9/25/95	Program/Project Manager J. C. Fulton	Date 9-26-95
Program Element Manager M. J. Wiemers	Date 9/25/95	DOE Monitor D. H. Splett	Date 9/26/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Obtain Sludge MOU Signature by TWRS and SNFP (WHC), and TWRS and SFD (RL)	Date: 09/19/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: WBS: 1.4.1.04.04.01.02.02	Due Date: 02/29/96
Control Number: S04-96-107	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ x DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal x DOE ☐ RCRA ☐ TPA Number _____	☐ Report Letter ☐ Drawings x Other (specify) MOU	☐ DOE-HQ x DOE-RL ☐ Other (specify)

Milestone Description: Complete agreement between TWRS and SNFP on the process for obtaining acceptability of 105 K Basin sludge for transfer and storage to TWRS

Description of what constitutes completion of this milestone: TWRS and SNFP (WHC) and TWRS and SFD (RL) approval of MOU

Cost Account Manager Date F. W. Moore F.W.Moore 9/25/95	Program/Project Manager Date J. C. Fulton J.C.Fulton 9-26-95
Program Element Manager Date M. J. Wiemers M.J.Wiemers 9/25/95	DOE Monitor Date O. M. Holgado Mark Holgado 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete South Loadout Pit Cleanup	Date: 8/17/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.04.05.02	Due Date: 3/8/96
Control Number: S04-96-502	Rev: Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number _____	☐ Report ☐ Letter ☐ Drawings X Other (specify) video inspection of s. loadout pit	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description: Complete cleanup of the 105K East Basin South Loadout Pit of debris and canisters.

Description of what constitutes completion of this milestone: Milestone is complete when all canisters and debris currently in the South Loadout Pit have been removed from the 105 K East Basin.

Cost Account Manager — Date D. S. Takasumi D S Takasumi 9/25/95	Program/Project Manager — Date J. C. Fulton J. C. Fulton 9-26-95
Program Element Manager — Date M. J. Wiemers M J Wiemers 9/25/95	DOE Monitor — Date O. M. Holgado Oscar M. Holgado 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Receive Notice to Proceed on Resumption of CSB Substructure	Date: 08/24/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.07.01	Due Date: 01/02/96
Control Number: S07-96-025	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number _____	☐ Report X Letter ☐ Drawings ☐ Other (specify)	DOE-HQ X DOE-RL Other (specify)

Milestone Description: Review and approval of substructure contractors submittal.

Description of what constitutes completion of this milestone:
This milestone is complete when review and approval of the fixed contractor's bonding, property management plan, safety QA vendor submittals, vendor submittals for concrete and rebar, and mobilization plan (any and all mobilization activities i.e. identify lay down areas, clear access roads). Note: Still requires KD-3A by October 24, 1995.

Cost Account Manager — Date M. K. Mahaffey 9/25/95	Program/Project Manager — Date J. C. Fulton 9.25.95
Program Element Manager — Date M. E. Witherspoon 9/25/95	DOE Monitor — Date J. B. Sullivan 9-25-95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Update K Basins Maintenance Implementation Plan (MIP)	Date: 8-24-95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.03.01.02.01.05 Facility Maintenance/Management	Due Date: 03/26/96
Control Number: S03-96-049	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	☐ Report ☐ Letter ☐ Drawings X Other (specify)	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description: Update K Basins Maintenance Implementation Plan (MIP)

Description of what constitutes completion of this milestone: Issuance of the K Basins MIP revision to DOE for approval.

Cost Account Manager FOR B. L. Debban	Date 9/25/95	Program/Project Manager J. C. Fulton	Date 9-25-95
Program Element Manager T. B. Veneziano	Date 9/25/95	DOE Monitor J. M. Escamillo	Date 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Provide Input To Technical Requirements For Design - Conditioning Facility	Date: 9/19/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.08	Due Date: 3/28/96
Control Number: S08-96-003	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal x DOE ☐ RCRA ☐ TPA Number _____	x Report ☐ Letter ☐ Drawings ☐ Other (specify)	☐ DOE-HQ x DOE-RL ☐ Other (specify)

Milestone Description: Provide input of tests, analyses, and subsequent reporting for fuel material behavior to support development of Conditioning Facility design specification.

Description of what constitutes completion of this milestone: Receipt by WHC of report documenting tests and analyses for fuel material behavior.

Cost Account Manager — Date P. A. Scott 9/25/95	Program/Project Manager — Date J. C. Fulton 9-20-95
Program Element Manager — Date E. W. Gerber 9/25/95	DOE Monitor — Date G. TRENCHARD 9-25-95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete K Basins Essential Drawings and Systems Descriptions	Date: 8-24-95
Assigned To: Spent Nuclear Fuels Project	CIN:
Program WBS Designator: 1.4.1.03.01.03.04.01	Due Date: 03/29/96
Control Number: S03-96-048	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	☐ Report ☐ Letter X Drawings ☐ Other (specify)	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description: Complete conversion of 160 K Basins essential drawings to "as-built" status and issue "Technical Manual-Systems Design Description Document".

Description of what constitutes completion of this milestone: The Design Reconstitution Program Plan and Procedures for K Basins (WHC-SD-SNF-DRP-001) defines a systematic, graded approach to re-establish and maintain configuration control at the K Basins. A defined and documented configuration baseline is essential to the SNF mission objectives and complex-wide configuration management initiatives. The major K Basins deliverables are 160 "as-built" essential drawings supported by Systems Design Descriptions containing the supporting design basis. Completion shall be defined as release of these documents and drawings to WHC document control.

Cost Account Manager — Date C. T. Miller II 9/25/95	Program/Project Manager — Date J. C. Fulton 9/25/95
Program Element Manager — Date T. B. Veneziano 9/25/95	DOE Monitor — Date J. M. Escamillo 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete K Basins TIM Resolution	Date: 8-24-95
Assigned To: Spent Nuclear Fuels Project	CIN:
Program WBS Designator: 1.4.1.03.01.04.01.01	Due Date: 12/29/95
Control Number: S03-96-039	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	☐ Report ☐ Letter ☐ Drawings X Other (specify)	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description: The K Basins Training Implementation Matrix (TIM) provides the documentation of facility compliance with DOE Order 5480.20A,"Personnel Selection, Qualification and Training Requirements for DOE Nuclear Facilities". This matrix was submitted for DOE RL approval on July 31, 1995 and identified 44 areas of noncompliance with the Order requirements. Noncompliances were both administrative and programmatic in nature and have been committed to be complete on or before December 29, 1995.

Description of what constitutes completion of this milestone: Closure of 44 identified noncompliances. Actions will include revision of K Basins Training Plan and procedures as well as the establishment of continuing training programs for facility personnel.

Cost Account Manager	Date	Program/Project Manager	Date
L. L. Blehm	9/25/95	J. C. Fulton	9/25/95
Program Element Manager	Date	DOE Monitor	Date
T. B. Veneziano	9/25/95	J. M. Escamillo	9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete Cask Preliminary Design	Date: 09/11/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.06.01.03.02.01	Due Date: 04/25/96
Control Number: S06-96-005	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	X Report Letter EDT ☐ Drawings Other (specify)	☐ DOE-HQ X DOE-RL Other (specify)

Milestone Description: Receipt, review, and acceptance of Contractors Design Deliverables as identified in Performance Specification and Contract Documents. (Completed activity FBW049.1, Preliminary Design Review)

Description of what constitutes completion of this milestone: Completion of Approved Preliminary Design Report, including incorporation of review comments.

Cost Account Manager — Date W. D. Gallo 9/25/95	Program/Project Manager — Date J. C. Fulton 9-25-95
Program Element Manager — Date M. E. Witherspoon 9/25/95	DOE Monitor — Date K. M. Schierman 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: ISSUE THE FY 1998 ACTIVITY DATA SHEET	Date: 28AUG95
Assigned To: Spent Nuclear Fuel Project	CIN: N/A
Program WBS Designator: 1.4.1.01.02	Due Date: 04/29/96
Control Number: SO1-96-111	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	X Report ☐ Letter ☐ Drawings ☐ Other (specify)	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description:

The 1998 Activity Data Sheet (ADS) is the Congressional Budget Request for future planning activities to achieve the Spent Nuclear Fuel (SNF) Project mission and goals. The ADS will reflect the resource planning base for Fiscal Year (FY) 1997 and FY's 1998 through 2003.

Description of what constitutes completion of this milestone:

Submittal of the 1998 ADS will constitute completion of this milestone. The ADS is to reflect current and future planning strategies for achieving the SNF Project mission.

Cost Account Manager — Date J. L. Denning 9-25-95	Program/Project Manager — Date J. C. Fulton 9-25-95
Program Element Manager — Date D. W. Siddoway 9-25-95	DOE Monitor — Date G. R. Schroeder 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete MCO Testing	Date: 09/13/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.05.01.01.02.03	Due Date: 05/06/96
Control Number: S05-96-007 (Schedule ID: FAWM014)	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	X Report ☐ Letter ☐ Drawings ☐ Other (specify)	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description: The Spent Nuclear Fuel is loaded into the MCO in rerack baskets. The loading of these baskets has to be demonstrated to ascertain loading ease and reliability. Three different basket designs will be tested in the mockup pool.

Description of what constitutes completion of this milestone: Successful completion of the tests at 305 Building.

Deliverables: Results documented in a report.

Cost Account Manager — Date W. D. Gallo 9/25/95	Program/Project Manager — Date J. C. Fulton 9-25-95
Program Element Manager — Date M. E. Witherspoon 9/25/95	DOE Monitor — Date K. M. Schierman 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Develop Cask Transportation Draft Safety Analysis Report for Packaging (SARP)			Date: 09/11/95
Assigned To: Spent Nuclear Fuel Project			CIN:
Program WBS Designator: 1.4.1.06.01.07.01.02			Due Date: 05/16/96
Control Number: S06-96-007			Rev: 0
MILESTONE TYPE: ☐ DOE-HQ X DOE-RL CONTRACTOR	DIVISION: ☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number _____	DELIVERABLE: Report Letter EDT Drawings X Other (specify) Draft Safety Analysis Report for Packaging	ADDRESS TO: ☐ DOE-HQ X DOE-RL Other (specify)

Milestone Description: Completion of Draft Safety Analysis Report for Packaging (SARP) including Vendor Design input. (completed activity FBW076, Draft SARP)

Description of what constitutes completion of this milestone: Transmittal of Draft Safety Analysis Report for Packaging (SARP) to WHC Project Management.

Cost Account Manager W. D. Gallo	Date 9/25/95	Program/Project Manager J. C. Fulton	Date 9-25-95
Program Element Manager M. E. Witherspoon	Date 9/25/95	DOE Monitor K. M. Schierman	Date 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete Definitive Design - Canister Storage Building	Date: 09/08/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.07.01	Due Date: 05/29/96
Control Number: S07-96-011	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	X Report ☐ Letter X Drawings ☐ Other (specify)	☐ DOE-HQ X DOE-RL Other (specify)

Milestone Description: Marks the completion by the A/E on the CSB Definitive Design.

Description of what constitutes completion of this milestone:
This milestone is complete when the A/E delivers a report and drawings, identifying their completion of work on the CSB Definitive Design.

Note: Contingent upon receiving funds October 1, 1995, to start Definitive Design (milestone # S07-96-010)

Cost Account Manager M. K. Mahaffey — Date 9/25/95	Program/Project Manager J. C. Fulton — Date 9-25-95
Program Element Manager M. E. Witherspoon — Date 9/25/95	DOE Monitor J. B. Sullivan — Date 9-25-95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Issue Drying Data Report For Process Definition	Date: 9/19/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.02.01.04	Due Date: 6/28/96
Control Number: S02-96-425	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ x DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal x DOE ☐ RCRA ☐ TPA Number _____	x Report ☐ Letter ☐ Drawings ☐ Other (specify)	☐ DOE-HQ x DOE-RL ☐ Other (specify)

Milestone Description: Issue report for drying tests of fuel shipments.

Description of what constitutes completion of this milestone: WHC Sign-off of supporting document.

Cost Account Manager — Date For R. P. Omberg 9/25/95	Program/Project Manager — Date J. C. Fulton 9-26-95
Program Element Manager — Date E. W. Gerber 9/25/95	DOE Monitor — Date J. S. Shuen J. S. Shuen 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Establish Acceptability of 105-KE Floor Sludge by TWRS	Date: 09/19/95
Assigned To: Spent Fuel Nuclear Project	CIN:
Program WBS Designator: 1.4.1.04.04.01.02.02	Due Date: 06/28/96
Control Number: S04-96-110	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ x DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	☐ Report X Letter ☐ Drawings ☐ Other (specify)	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description: TWRS complete compatibility assessment and issue recommendation letter to the SNF Project.

Description of what constitutes completion of this milestone: TWRS issues recommendation letter covering compatibility of 105 K East floor sludge with other waste inventory at their double shell tank.

Cost Account Manager — Date F. W. Moore F W Moore 9/25/95	Program/Project Manager — Date J. C. Fulton J C Fulton 9-26-95
Program Element Manager — Date M. J. Wiemers M J Wiemers 9/25/95	DOE Monitor — Date O. M. Holgado O M Holgado 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete Shipment of KE Fuel and Canister Sludge to Hot Cell	Date: 8/23/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.02.01.04.04.03	Due Date: 07/01/96
Control Number: S02-96-415	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ ☒ DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal ☒ DOE ☐ RCRA ☐ TPA Number	☐ Report ☐ Letter ☐ Drawings X Other (specify) Completion of Shipments to Hot Cells	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description: Complete the shipment of fuel and sludge from KE Basin to the Hot Cells for testing

Description of what constitutes completion of this milestone: Last KE fuel and sludge samples are received at the Hot Cell

Cost Account Manager For R. P. Omberg — Date 9/25/95	Program/Project Manager — Date 9-26-95
Program Element Manager E. W. Gerber — Date 9/25/95	DOE Monitor J. S. Shuen — Date 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete Fuel Removal System Design	Date: 09/11/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.04.03.03.02.01	Due Date: 08/29/96
Control Number: S04-96-303 (Schedule ID: ECWM004)	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	Report X Letter ☐ Drawings ☐ Other (specify)	☐ DOE-HQ X DOE-RL Other (specify)

Milestone Description: Completion of Detailed Fabrication/Procurement Design Media by Design Agent with WHC review comments incorporated

Description of what constitutes completion of this milestone: Sign off of Engineering Data Transmittal for release.

Deliverables: Engineering Data Transmittal

Cost Account Manager Date W. D. Gallo 9/21/95	Program/Project Manager Date J. C. Fulton 9-25-95
Program Element Manager Date M. E. Witherspoon 9/25/95	DOE Monitor Date K. M. Schierman 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: ISSUE THE FINAL PROGRAM PLAN (FY-97)	Date: 28AUG95
Assigned To: Spent Nuclear Fuel Project	CIN: N/A
Program WBS Designator: 1.4.1.01.02	Due Date: 09/02/96
Control Number: S01-96-211	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	☐ Report ☐ Letter ☐ Drawings X Other (specify) 1997 Multi-Year Program Plan	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description: The 1997 Multi-Year Program Plan (Program Plan) is to provide the Spent Nuclear Fuel (SNF) Project technical, schedule, and cost baseline for the life cycle cost associated with the SNF Project mission, vision, and objectives.

Description of what constitutes completion of this milestone: Completion of this milestone will be the issuance of the SNF Project 1997 Program Plan. The 1997 Program Plan will document the SNF Project technical, schedule, and cost baseline for life cycle costs associated with the SNF Project. The Program Plan will be consistent with guidance provided from the U.S. Department of Energy, Richland Operations Office, Planning Integration Division.

Cost Account Manager — Date J. L. Denning 9-25-95	Program/Project Manager — Date J. C. Fulton 9-25-95
Program Element Manager — Date D. W. Siddoway 9-25-95	DOE Monitor — Date G. R. Schroeder 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete Cask/Transportation Performance Testing	Date: 09/14/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.06.01.05.02.01	Due Date: 09/19/96
Control Number: S06-96-010 (Schedule ID: FBW001.4)	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	X Report Letter EDT Drawings Other (specify)	☐ DOE-HQ X DOE-RL Other (specify)

Milestone Description: This activity performs structural testing of the packaging containment and confinement features. The Seller may choose to substitute analyses in lieu of structural tests.

Description of what constitutes completion of this milestone: Delivery of completed test procedures. Completion of tests (as required) or delivery of analyses report.

Deliverables: Drop test procedures - completed
and/or Analytical Report

Cost Account Manager Date W. D. Gallo 9/25/95	Program/Project Manager Date J. C. Fulton 9.21.95
Program Element Manager Date M. E. Witherspoon 9/25/95	DOE Monitor Date K. M. Schierman 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Issue SNF Process Flow Diagram	Date: 8/15/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.02.01.02.03.01	Due Date: 3/31/96
Control Number: S02-96-225	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ x DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	☐ Report ☐ Letter ☒ Drawings ☐ Other (specify)	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description:

Issue Rev. 0 cross project level 0 & level 1 Process Flow Diagram

Description of what constitutes completion of this milestone:

Release of Rev. 0 Process Flow Diagrams via Engineering Data Transmittal

Cost Account Manager — Date J. R. Frederickson — 9/25/95	Program/Project Manager — Date J. C. Fulton — 9-26-95
Program Element Manager — Date E. W. Gerber — 9/25/95	DOE Monitor — Date 9/26/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete Cask/Transportation Basin Mods Design	Date: 09/14/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.06.01.08.01.02	Due Date: 10/07/96
Control Number: S06-97-001 (Schedule ID: FBWM020)	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	Report Letter EDT X Drawings Other (specify)	☐ DOE-HQ X DOE-RL Other (specify)

Milestone Description: Release of design package.

Description of what constitutes completion of this milestone: Rev 0 release of design package.

Deliverables: Design Package

Cost Account Manager Date W. D. Gallo 9/25/95	Program/Project Manager Date J. C. Fulton 9-20-95
Program Element Manager Date M. E. Witherspoon 9/25/95	DOE Monitor Date K. M. Schierman 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Approve MCO Topical/Design Report	Date: 09/13/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.05.01.06.02.01	Due Date: 11/08/96
Control Number: S05-97-004 (Schedule ID: FAWM008)	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	X Report ☐ Letter ☐ Drawings ☐ Other (specify)	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description: WHC approval of the MCO Topical Design Report.

Description of what constitutes completion of this milestone: Signed EDT ready for release.

Deliverables: MCO Topical Design Report

Cost Account Manager Date W. D. Gallo 9/25/95	Program/Project Manager Date J. C. Fulton 9.25-95
Program Element Manager Date M. E. Witherspoon 9/25/95	DOE Monitor Date K. M. Schierman 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Submit Rev 0 Functions & Requirements Document	Date: 9/18/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.08.01.01	Due Date: 12/27/96
Control Number: S08-97-004	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	X Report ☐ Letter ☐ Drawings ☐ Other (specify)	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description:

This milestone marks the preparation of a functions and requirements document. This document will support procurement activities for the fuel conditioning facility.

Description of what constitutes completion of this milestone:

Completion and Release of a Functions & Requirements document for the fuel conditioning facility.

Cost Account Manager — Date J. R. Frederickson 9/25/95	Program/Project Manager — Date J. C. Fulton 9-25-95
Program Element Manager — Date M. E. Witherspoon 9/25/95	DOE Monitor — Date G. TRENCHARD 9-25-95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete Fuel Removal System Modifications Design	Date: 09/11/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.04.03.03.01.01	Due Date: 12/30/96
Control Number: S04-97-301 (Schedule ID: ECWM003)	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	Report X Letter ☐ Drawings ☐ Other (specify)	☐ DOE-HQ X DOE-RL Other (specify)

Milestone Description: Facility modification design package issued with WHC review comments incorporated.

Description of what constitutes completion of this milestone: Sign Engineering Data Transmittal for release.

Deliverables: Engineering Data Transmittal

Cost Account Manager Date W. D. Gallo 9/25/95	Program/Project Manager Date J. C. Fulton 9-25-95
Program Element Manager Date M. E. Witherspoon 9/25/95	DOE Monitor Date K. M. Schierman 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete Cask Design	Date: 09/11/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.06.01.03.03.01	Due Date: 01/14/97
Control Number: S06-97-003	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	X Report ☐ Letter ☐ Drawings ☐ Other (specify)	☐ DOE-HQ X DOE-RL Other (specify)

Milestone Description: Receipt, review, and acceptance of Contractors Design Deliverables as identified in Performance Specification and Contract Documents. (Completed activity FBW051.1, Final Design Review)

Description of what constitutes completion of this milestone: Completion of Approved Design Analysis Report.

Cost Account Manager Date W. D. Gallo 9/25/95	Program/Project Manager Date J. C. Fulton 9-25-95
Program Element Manager Date M. E. Witherspoon 9/25/95	DOE Monitor Date K. M. Schierman 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete Cask Transport Design	Date: 09/14/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.06.01.03.04.01	Due Date: 01/22/97
Control Number: S06-97-002 (Schedule ID: FBWM006)	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	X Report Letter EDT Drawings Other (specify)	☐ DOE-HQ X DOE-RL Other (specify)

Milestone Description: Completion of design report -- includes all design deliverables and design review. Incorporation of design review comments included.

Description of what constitutes completion of this milestone: Buyer acceptance of design report (approved).

Deliverables: Design report

Cost Account Manager Date W. D. Gallo 9/25/95	Program/Project Manager Date J. C. Fulton 9-25-95
Program Element Manager Date M. E. Witherspoon 9/25/95	DOE Monitor Date K. M. Schierman 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete/Issue Cask Transport Safety Analysis Report for Packaging (SARP)	Date: 09/11/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.06.01.07.01.02	Due Date: 03/11/97
Control Number: S06-97-005	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	X Report ☐ Letter ☐ Drawings ☐ Other (specify)	☐ DOE-HQ X DOE-RL Other (specify)

Milestone Description: Completed, approved Safety Analysis Report for Packaging (SARP), issued for use. (Completed Activity FBW078 SARP Reviewed and Approved)

Description of what constitutes completion of this milestone: Transmittal of Safety Analysis Report for Packaging. Report approved by DOE-RL.

Cost Account Manager Date W. D. Gallo 9/25/95	Program/Project Manager Date J. C. Fulton 9-25-95
Program Element Manager Date M. E. Witherspoon 9/25/95	DOE Monitor Date K. M. Schierman 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Establish Acceptability of 105-KW Canister Sludge by TWRS	Date: 09/19/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.04.04.01.02.02	Due Date: 03/31/97
Control Number: S04-97-115	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	☐ Report X Letter ☐ Drawings ☐ Other (specify)	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description: TWRS complete compatibility assessment and issue recommendation letter to the SNF Project.

Description of what constitutes completion of this milestone: TWRS issues recommendation letter covering compatibility of 105 K West canister sludge with other waste inventory at their double shell tank.

Cost Account Manager	Date	Program/Project Manager	Date
F. W. Moore F W Moore	9/25/95	J. C. Fulton J C Fulton	9-26-95
Program Element Manager	Date	DOE Monitor	Date
M. J. Wiemers M J Wi	9/25/95	O. M. Holgado O M Holgado	9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: ISSUE THE FY 1999 ACTIVITY DATA SHEET	Date: 28AUG95
Assigned To: Spent Nuclear Fuel Project	CIN: N/A
Program WBS Designator: 1.4.1.01.02	Due Date: 04/25/97
Control Number: SO1-97-111	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	X Report ☐ Letter ☐ Drawings ☐ Other (specify)	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description: The 1999 Activity Data Sheet (ADS) is the Congressional Budget Request for future planning activities to achieve the Spent Nuclear Fuel (SNF) Project mission and goals. The ADS will reflect the resource planning base for Fiscal Year (FY) 1998 and FY's 1999 through 2004.

Description of what constitutes completion of this milestone:

Submittal of the 1999 ADS will constitute completion of this milestone. The ADS is to reflect current and future planning strategies for achieving the SNF Project mission.

Cost Account Manager — Date J. L. Denning 9-25-95	Program/Project Manager — Date J. C. Fulton 9-25-95
Program Element Manager — Date D. W. Siddoway 9-25-95	DOE Monitor — Date G. R. Schroeder 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Receive Approval of CSB SAR by DOE-RL	Date: 09/08/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.07.01	Due Date: 05/20/97
Control Number: S07-97-026	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	☐ Report X Letter ☐ Drawings ☐ Other (specify)	DOE-HQ X DOE-RL Other (specify)

Milestone Description: DOE final review and approval of SAR.

Description of what constitutes completion of this milestone:
This milestone is complete when WHC approves and submits the SAR to DOE-RL allowing for a two week period, with no impact to project schedule.

Cost Account Manager — Date M. K. Mahaffey 9-25-95	Program/Project Manager — Date J. C. Fulton 9-26-95
Program Element Manager — Date M. E. Witherspoon 9/25/95	DOE Monitor — Date J. B. Sullivan 9-25-95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete Cask/Transportation Initial Transport Fabrication	Date: 09/14/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.06.01.04.03.01	Due Date: 05/22/97
Control Number: S06-97-006 (Schedule ID: FBWM011)	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	Report Letter EDT Drawings X Other (specify) Hardware	☐ DOE-HQ X DOE-RL Other (specify)

Milestone Description:

- Sellers QA acceptance of conveyance at job site.
- Sellers QA acceptance of ancillary equipment at job site.

Description of what constitutes completion of this milestone:

- Receipt of Sellers job travelers.

Deliverables: Approved job package.

Cost Account Manager / Date W. D. Gallo 9/25/95	Program/Project Manager / Date J. C. Fulton 9-25-95
Program Element Manager / Date M. E. Witherspoon 9/26/95	DOE Monitor / Date K. M. Schierman 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Issue MCO Design Review Report	Date: 09/13/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.05.01.03.02.01	Due Date: 05/22/97
Control Number: S05-97-007 (Schedule ID: FAWA0252)	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	☐ Report ☐ Letter ☐ Drawings X Other (specify) Design Pkg; EDT	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description: Release of Phase II Design Package (in accordance with Statement of Work requirements).

Description of what constitutes completion of this milestone: Issuance of signed off design package to release station. Signed-off WHC Engineering Data Transmittal for Release

Cost Account Manager / Date W. P. Gallo 9/25/95	Program/Project Manager / Date J. C. Fulton 9-25-95
Program Element Manager / Date M. E. Witherspoon 9/25/95	DOE Monitor / Date K. M. Schierman 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Award MCO Fabrication Contract	Date: 09/13/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.05.01.04.01.01	Due Date: 07/15/97
Control Number: S05-97-008 (Schedule ID: FAWM002)	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	☐ Report X Letter (NTP) ☐ Drawings ☐ Other (specify)	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description: WHC Procurement issuance of NTP to Fabrication Contractor.

Description of what constitutes completion of this milestone: Signed and issued notice to proceed.

Deliverables: Notice to Proceed

Cost Account Manager Date W. D. Gallo 9/21/95	Program/Project Manager Date J. C. Fulton 9-25-95
Program Element Manager Date M. E. Witherspoon 9/25/95	DOE Monitor Date K. M. Schierman 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Receive Cask/Transport For Training	Date: 09/11/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.06.01.04.01.01	Due Date: 07/31/97
Control Number: S06-97-010	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	Report Letter EDT Drawings X Other (specify) Cask/Transportation System	☐ DOE-HQ X DOE-RL Other (specify)

Milestone Description: Receipt of Cask/Transportation System at buyers location, ready for training use.

Description of what constitutes completion of this milestone: Deliver system to training authority. Includes cask, transport, and related accessories as defined by contract (Initial Shipment). Complete Activity FBW066.2

Cost Account Manager Date W. D. Gallo 9/25/95	Program/Project Manager Date J. C. Fulton 9-25-95
Program Element Manager Date M. E. Witherspoon 9/25/95	DOE Monitor Date K. M. Schierman 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete Fuel Removal System Equipment Installation	Date: 09/11/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.04.03.04.02.01	Due Date: 08/15/97
Control Number: S04-97-303 (Schedule ID: ECWM007)	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	Report Letter ☐ Drawings X Other (specify) Punchlist	☐ DOE-HQ X DOE-RL Other (specify)

Milestone Description: Installation of Process Equipment at K West and K East with Punchlist Walkdown complete.

Description of what constitutes completion of this milestone: Punchlist issued, ready for turnover to Operations for OTP.

Deliverables: Construction Punchlist issued.

Cost Account Manager Date W. D. Gallo 9/25/95	Program/Project Manager Date J. C. Fulton 9-25-95
Program Element Manager Date M. E. Witherspoon 9/25/95	DOE Monitor Date K. M. Schierman 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete Cask/Transportation Basin Mods/Construction	Date: 09/14/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.06.01.08.01.04	Due Date: 08/28/97
Control Number: S06-97-009 (Schedule ID: FBWM021)	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number _____	Report Letter EDT Drawings X Other (specify) Sign construction punchlist	☐ DOE-HQ X DOE-RL Other (specify)

Milestone Description: Completion of all construction activities as defined to support Basin Mods for Fuel Removal.

Description of what constitutes completion of this milestone: Sign off of final construction punchlist.

Deliverables: Completed modifications

Cost Account Manager Date W. D. Gallo 9/25/95	Program/Project Manager Date J. C. Fulton 9-25-95
Program Element Manager Date M. E. Witherspoon 9/25/95	DOE Monitor Date K. M. Schierman 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: ISSUE THE FINAL PROGRAM PLAN (FY-98)	Date: 28AUG95
Assigned To: Spent Nuclear Fuel Project	CIN: N/A
Program WBS Designator: 1.4.1.01.02	Due Date: 09/02/97
Control Number: SO1-97-211	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number _____	☐ Report ☐ Letter ☐ Drawings X Other (specify) 1998 Multi-Year Program Plan	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description: The 1998 Multi-Year Program Plan (Program Plan) is to provide the Spent Nuclear Fuel (SNF) Project technical, schedule, and cost baseline for the life cycle cost associated with the SNF Project mission, vision, and objectives.

Description of what constitutes completion of this milestone: Completion of this milestone will be the issuance of the SNF Project 1998 Program Plan. The 1998 Program Plan will document the SNF Project technical, schedule, and cost baseline for life cycle costs associated with the SNF Project. The Program Plan will be consistent with guidance provided from the U.S. Department of Energy, Richland Operations Office, Planning Integration Division.

Cost Account Manager — Date J. L. Denning 9-25-95	Program/Project Manager — Date J. C. Fulton 9-25-95
Program Element Manager — Date D. W. Siddoway 9-25-95	DOE Monitor — Date G. R. Schroeder 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Receive First MCO	Date: 09/13/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.05.01.04.01.01	Due Date: 09/02/97
Control Number: S05-97-010 (Schedule ID: FAWA1180)	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	☐ Report ☐ Letter ☐ Drawings X Other (specify) MCOs & Baskets	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description: Fabrication contractor delivers first shipment of MCOs and baskets to warehousing.

Description of what constitutes completion of this milestone: Receipt of shipment at warehousing.

Deliverables: MCOs and baskets

Cost Account Manager Date W. D. Gallo 9/25/95	Program/Project Manager Date J. C. Fulton 9-25-95
Program Element Manager Date M. E. Witherspoon 9/25/95	DOE Monitor Date K. M. Schierman 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete Water System Upgrade	Date: 9/19/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.04.06.01	Due Date: 09/30/97
Control Number: S04-97-607	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	☐ Report X Letter ☐ Drawings ☐ Other (specify)	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description: Complete K Basin Water Treatment Upgrades project. Completion is defined upon official Acceptance of Construction parts I and II signed off and turned over to operations. Minor punchlist items will remain open.

Description of what constitutes completion of this milestone: The required approval signatures on parts I and II of the official Acceptance of Construction for the K Basins Water Treatment Upgrades project.

Cost Account Manager — Date for D. S. Takasumi 9/25/95	Program/Project Manager — Date J. C. Fulton 9-26-95
Program Element Manager — Date M. J. Wiemers 9/25/95	DOE Monitor — Date D. H. Splett for 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Accept Completed Work - Canister Storage Building	Date: 08/24/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.07.01	Due Date: 09/30/97
Control Number: S07-97-014	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	☐ Report X Letter ☐ Drawings ☐ Other (specify)	☐ DOE-HQ X DOE-RL Other (specify)

Milestone Description: This milestone represents the completion of construction, and CSB readiness for turnover to Operations.

Description of what constitutes completion of this milestone: This milestone is complete when the last system turnover package is approved by the CSB construction manager and the CSB Start-Up/Operations manager. Sign-Off Sections I & II (Official acceptance of construction; Chapter X, DOE-RL 4700.1A CHG 3).

Cost Account Manager	Date	Program/Project Manager	Date
M. K. Mahaffey	9-25-95	J. C. Fulton	9-25-95
Program Element Manager	Date	DOE Monitor	Date
M. E. Witherspoon	9/25/95	J. B. Sullivan	9-25-95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete Readiness Assessment - Sludge Transfer from 105 K East Basin to TWRS	Date: 09/19/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.04.04.01.08.04	Due Date: 10/31/97
Control Number: S04-97-117	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	☐ Report ☐ Letter ☐ Drawings X Other (specify) Completion of tasks listed below.	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description: The readiness assessment(s) for loadout of K East Basin sludge, sludge transport package, and TWRS off-load systems are complete and readiness declared.

Description of what constitutes completion of this milestone: Declaration to RL of readiness.

Assumes completion of a Readiness Assessment rather than an Operaitonal Readiness Review (ORR).

Cost Account Manager — Date F. W. Moore F.W.Moore 9/25/95	Program/Project Manager — Date J. C. Fulton J.C.Fulton 9-26-95
Program Element Manager — Date M. J. Wiemers M.J.W. 9/25/95	DOE Monitor — Date O. M. Holgado Oscar M. Holgado 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Begin Sludge Transfer from 105 K East Basin to TWRS	Date: 9/20/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.04.04.01	Due Date: 11/3/97
Control Number: S04-98-205	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	☐ Report ☐ Letter ☐ Drawings X Other (specify) First sludge transfer initiated	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description: Initiate transfer of K East Basin sludge waste to TWRS.

Description of what constitutes completion of this milestone: Initiate transport of first batch of sludge waste to TWRS.

Cost Account Manager	Date	Program/Project Manager	Date
F. W. Moore	9/25/95	J. C. Fulton	9-26-95
Program Element Manager	**Date**	**DOE Monitor**	**Date**
M. J. Wiemers	9/25/95	O. M. Holgado	9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: KD 4 Authorize Commencement of CSB Operations	Date: 08/24/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.07.02	Due Date: 12/01/97
Control Number: S07-98-022	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	☐ Report X Letter ☐ Drawings ☐ Other (specify)	DOE-HQ X DOE-RL Other (specify)

Milestone Description: Approval authorizes the plant manager to initiate operations.

Description of what constitutes completion of this milestone:
Approval of KD-4, is scheduled after plant manager declares readiness. The plant manager declares readiness after successful demonstration of plant capabilities. A readiness team will assess management, programs, personnel, and physical conditions of the facility. The readiness review team ensures the facility is ready to operate with respect to safety, health, environmental compliance, and management. The plant manager will make a written declaration to the approval authority (DOE).
[Reference DOE order 5480.31 and RLID 5480.31 (Appendix A), DOE Order 5480.19 (Conduct of Operations)]

Cost Account Manager M. K. Mahaffey Date 9.25-95	Program/Project Manager J. C. Fulton Date 9.25-95
Program Element Manager M. E. Witherspoon Date 9/25/95	DOE Monitor J. B. Sullivan Date 9-25-95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete Fuel Removal System - Ready for Operation	Date: 09/11/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.04.03.08.01.01	Due Date: 12/01/97
Control Number: S04-98-304 (Schedule ID: ECWM012)	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	Report X Letter EDT ☐ Drawings Other (specify)	☐ DOE-HQ X DOE-RL Other (specify)

Milestone Description: Readiness Assessment complete authorizing initiation of Fuel Removal Process activities in K West and K East.

Description of what constitutes completion of this milestone: Signed Readiness Assessment

Deliverables: Engineering Data Transmittal Signed Readiness Assessment.

Cost Account Manager Date W. D. Gallo 9/25/95	Program/Project Manager Date J. C. Fulton 9-25-95
Program Element Manager Date M. E. Witherspoon 9/25/95	DOE Monitor Date K. M. Schierman 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete Fabrication MCO Production Equipment	Date: 09/13/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.05.01.04.02.01	Due Date: 12/01/97
Control Number: S05-98-002 (Schedule ID: FAWAM004)	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	☐ Report ☐ Letter ☐ Drawings X Other (specify) Prod. Equip.	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description: Complete fabrication and delivery of MCOs production equipment.

Description of what constitutes completion of this milestone: Delivery and acceptance of production equipment at Buyer's location.

Deliverables: Production equipment

Cost Account Manager Date W. D. Gallo 9/25/95	Program/Project Manager Date J. C. Fulton 9-25-95
Program Element Manager Date M. E. Witherspoon 9/25/95	DOE Monitor Date K. M. Schierman 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete Cask/Transportation Training/Operational Readiness Review	Date: 09/14/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.06.01.06.01.01	Due Date: 12/02/97
Control Number: S06-98-005 (Schedule ID: FBWM016)	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ x DOE-RL CONTRACTOR	☐ State ☐ Federal x DOE ☐ RCRA ☐ TPA Number	Report Letter EDT Drawings X Other (specify) Approved Readiness Review	☐ DOE-HQ X DOE-RL Other (specify)

Milestone Description: Complete training of first three crews in Cask/Transportation equipment and acceptance of readiness review.

Description of what constitutes completion of this milestone: Approved Readiness Review (Readiness Acceptance).

Deliverables: Signed off Readiness Acceptance

Cost Account Manager Date W. D. Gallo 9/21/95	Program/Project Manager Date J. C. Fulton 9-25-95
Program Element Manager Date M. E. Witherspoon 9/25/95	DOE Monitor Date K. M. Schierman 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete Cask/Transportation Final Transport Fabrication	Date: 09/14/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.06.01.04.03.01	Due Date: 12/09/97
Control Number: S06-98-006 (Schedule ID: FBW001.5)	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	☐ Report ☐ Letter ☐ Drawings X Other (specify) Hardware	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description:

- Sellers QA acceptance of conveyance at job site.
- Sellers QA acceptance of ancillary equipment at job site.

Description of what constitutes completion of this milestone:

- Receipt of Sellers job travelers.

Deliverables: Approved job package.

Cost Account Manager Date W. D. Gallo 9/25/95	Program/Project Manager Date J. C. Fulton 9-25-95
Program Element Manager Date M. E. Witherspoon 9/25/95	DOE Monitor Date K. M. Schierman 9/25/95

Westinghouse Hanford Company MILESTONE DESCRIPTION SHEET			
Title: Start Basin Fuel Removal			Date: 09/06/95
Assigned To: Spent Nuclear Fuel Project			CIN:
Program WBS Designator: 1.4.1			Due Date: 12/30/97
Control Number: S00-98-901			Rev: 0
MILESTONE TYPE: X DOE-HQ ☐ DOE-RL ☐ CONTRACTOR	DIVISION: ☐ State X Federal X DOE ☐ RCRA ☐ TPA Number	DELIVERABLE: ☐ Report ☐ Letter ☐ Drawings X Other (specify) Begin Fuel Removal	ADDRESS TO: X DOE-HQ ☐ DOE-RL ☐ Other (specify)
Milestone Description: Start removal of fuel from K Basins.			
Description of what constitutes completion of this milestone: This milestone is complete when the removal of fuel from the K Basin is initiated. Fuel removal will be initiated at the start of physical movement of fuel.			
Cost Account Manager Date		Program/Project Manager Date 9-26-95	
Program Element Manager Date		DOE Monitor Date	

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete Conditioning Facility Start-Up Procedures	Date: 9/18/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.08.01.06	Due Date: 1/30/98
Control Number: S08-98-001	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number _____	☐ Report ☐ Letter ☐ Drawings X Other (specify): Operating Procedures	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description:

Develop and Release approved Start-Up procedures for the Conditioning facility.

Description of what constitutes completion of this milestone:

Release of Approved Start-Up procedures.

Cost Account Manager ~~M. E. Witherspoon~~ BRADSHAW — Date 9/25/95	Program/Project Manager J. C. Fulton — Date 9-25-95
Program Element Manager M. E. Witherspoon — Date 9/25/95	DOE Monitor G. TRENCHARD — Date 9-25-95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete Conditioning Facility Start-Up Training	Date: 9/18/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.08.01.06	Due Date: 3/31/98
Control Number: S08-98-003	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number _____	☐ Report ☐ Letter ☐ Drawings X Other (specify): Training Certifications	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description:

Perform Operator Training on prototype and plant systems for the Conditioning facility.

Description of what constitutes completion of this milestone:

Certification of acceptable Operator qualification for the Conditioning facility.

Cost Account Manager / Date ~~M. E. Witherspoon~~ BRADSHAW 9/25/95	Program/Project Manager / Date J. C. Fulton 9-25-95
Program Element Manager / Date M. E. Witherspoon 9/25/95	DOE Monitor / Date G. TRENCHARD 9-25-95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Establish KW Floor Sludge Disposition Path	Date: 09/19/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.04.04.01.02.02	Due Date: 03/31/98
Control Number: S04-98-120	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	☐ Report X Letter ☐ Drawings ☐ Other (specify)	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description: Complete the decision on acceptability of KW floor sludge for TWRS or solid waste and prepare recommendation letter

Description of what constitutes completion of this milestone: Issue a recommendation letter

Cost Account Manager	Date	Program/Project Manager	Date
F. W. Moore FWMoore	9/25/95	J. C. Fulton JCFulton	9-26-95
Program Element Manager	Date	DOE Monitor	Date
M. J. Wiemers MJW	9/25/95	O. M. Holgado OMHolgado	9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: ISSUE THE FY 2000 ACTIVITY DATA SHEET	Date: 28AUG95
Assigned To: Spent Nuclear Fuel Project	CIN: N/A
Program WBS Designator: 1.4.1.01.02	Due Date: 04/24/98
Control Number: S01-98-111	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	X Report ☐ Letter ☐ Drawings ☐ Other (specify)	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description: The 2000 Activity Data Sheet (ADS) is the Congressional Budget Request for future planning activities to achieve the Spent Nuclear Fuel (SNF) Project mission and goals. The ADS will reflect the resource planning base for Fiscal Year (FY) 1999 and FY's 2000 through 2005.

Description of what constitutes completion of this milestone: Submittal of the 2000 ADS will constitute completion of this milestone. The ADS is to reflect current and future planning strategies for achieving the SNF Project mission.

Cost Account Manager — Date J. L. Denning 9-25-95	Program/Project Manager — Date J. C. Fulton 9-25-95
Program Element Manager — Date D. W. Siddoway 9-25-95	DOE Monitor — Date G. R. Schroeder 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete Conditioning Facility Operational Readiness Review	Date: 9/20/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.08	Due Date: 6/30/98
Control Number: S08-98-006	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ x DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal x DOE ☐ RCRA ☐ TPA Number	☐ Report x Letter ☐ Drawings ☐ Other (specify)	☐ DOE-HQ x DOE-RL ☐ Other (specify)

Milestone Description: Completion of all reviews and action items necessary for operation of Conditioning Facility

Description of what constitutes completion of this milestone: Letter from WHC to DOE/RL confirming completion of reviews

Cost Account Manager — Date M. E. Witherspoon 9/25/95	Program/Project Manager — Date J. C. Fulton 9-25-95
Program Element Manager — Date M. E. Witherspoon 9/25/95	DOE Monitor — Date G. TRENCHARD 9-25-95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Completion of Conditioning Facility Startup Testing			Date: 9/18/95
Assigned To: Spent Nuclear Fuel Project			CIN:
Program WBS Designator: 1.4.1.08.01.06			Due Date: 6/30/98
Control Number: S08-98-005			Rev: 0
MILESTONE TYPE: ☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	DIVISION: ☐ State ☐ Federal ☒ DOE ☐ RCRA ☐ TPA Number	DELIVERABLE: ☐ Report X Letter ☐ Drawings ☐ Other (specify)	ADDRESS TO: ☐ DOE-HQ X DOE-RL ☐ Other (specify)
Milestone Description: Acceptance testing of the Conditioning facility.			
Description of what constitutes completion of this milestone: Certification by the Construction Manager and Operations Manager of the Acceptance Test Report.			
Cost Account Manager M. E. Witherspoon BRADSHAW 9/25/95 Date		Program/Project Manager J. C. Fulton 9-25-95 Date	
Program Element Manager M. E. Witherspoon 9/25/95 Date		DOE Monitor G. TRENCHARD 9-25-95 Date	

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Available for Fuel Transfer - Conditioning Facility	Date: 9/18/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.08.01.06	Due Date: 6/30/98
Control Number: S08-98-007	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	☐ Report X Letter ☐ Drawings ☐ Other (specify)	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description: Demonstration of availability of the Conditioning facility for the transfer of K-Basin spent nuclear fuel.

Description of what constitutes completion of this milestone: Completion of Start-Up testing and all operational action items.

Cost Account Manager ~~M. E. Witherspoon~~ BRADSHAW — Date 9/25/95	Program/Project Manager J. C. Fulton — Date 9-25-95
Program Element Manager M. E. Witherspoon — Date 9/25/95	DOE Monitor G. TRENCHARD — Date 9-25-95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Begin 105-K East Floor Sludge Retrieval	Date: 9/6/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.04.04.02.01.01	Due Date: 08/12/98
Control Number: S04-98-210	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ x DOE-RL CONTRACTOR	x State x Federal ☐ DOE ☐ RCRA x TPA Number M-34-00-T08	☐ Report ☐ Letter ☐ Drawings X Other (specify) Begin Sludge Retrieval	☐ DOE-HQ X DOE-RL Other (specify)

Milestone Description: Begin the retrieval operations of floor sludge from 105 K East Basin.

New date to begin this activity will be negotiated with the regulators.

Description of what constitutes completion of this milestone: Retrieval of floor sludge from 105 K East Basin has started.

Cost Account Manager — Date F. W. Moore 9/25/95	Program/Project Manager — Date J. C. Fulton 9-26-95
Program Element Manager — Date M. J. Wiemers 9/25/95	DOE Monitor — Date O. M. Holgado 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: ISSUE THE FINAL PROGRAM PLAN (FY-99)	Date: 28AUG95
Assigned To: Spent Nuclear Fuel Project	CIN: N/A
Program WBS Designator: 1.4.1.01.02	Due Date: 09/02/98
Control Number: S01-98-211	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	☐ Report ☐ Letter ☐ Drawings X Other (specify) 1999 Multi-Year Program Plan	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description: The 1999 Multi-Year Program Plan (Program Plan) is to provide the Spent Nuclear Fuel (SNF) Project technical, schedule, and cost baseline for the life cycle cost associated with the SNF Project mission, vision, and objectives.

Description of what constitutes completion of this milestone: Completion of this milestone will be the issuance of the SNF Project 1999 Program Plan. The 1999 Program Plan will document the SNF Project technical, schedule, and cost baseline for life cycle costs associated with the SNF Project. The Program Plan will be consistent with guidance provided from the U.S. Department of Energy, Richland Operations Office, Planning Integration Division.

Cost Account Manager — Date J. L. Denning 9-25-95	Program/Project Manager — Date J. C. Fulton 9/25/95
Program Element Manager — Date D. W. Siddoway 9-25-95	DOE Monitor — Date G. R. Schroeder 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete Fabrication of MCO	Date: 09/13/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.05.01.04.01.01	Due Date: 02/25/99
Control Number: S05-99-001 (Schedule ID: FAWA1200)	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	☐ Report ☐ Letter ☐ Drawings X Other (specify) MCOs on Site	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description: This commitment is complete when Fabrication contractor delivers final shipment of MCOs to Hanford

Description of what constitutes completion of this milestone: Shipping papers delivered to warehousing. (shipping papers invoicing quantity of MCOs shipped to match order request).

Cost Account Manager Date W. D. Gallo 9/25/95	Program/Project Manager Date J. C. Fulton 9-25-95
Program Element Manager Date M. E. Witherspoon 9/25/95	DOE Monitor Date K. M. Schierman 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: ISSUE THE FY 2001 ACTIVITY DATA SHEET	Date: 28AUG95
Assigned To: Spent Nuclear Fuel Project	CIN: N/A
Program WBS Designator: 1.4.1.01.02	Due Date: 04/23/99
Control Number: S01-99-111	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	X Report ☐ Letter ☐ Drawings ☐ Other (specify)	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description: The 2001 Activity Data Sheet (ADS) is the Congressional Budget Request for future planning activities to achieve the Spent Nuclear Fuel (SNF) Project mission and goals. The ADS will reflect the resource planning base for Fiscal Year (FY) 2000 and FY's 2001 through 2006.

Description of what constitutes completion of this milestone: Submittal of the 2001 ADS will constitute completion of this milestone. The ADS is to reflect current and future planning strategies for achieving the SNF Project mission.

Cost Account Manager J. L. Denning	Date 9-25-95	Program/Project Manager J. C. Fulton	Date 9-25-95
Program Element Manager D. W. Siddoway	Date 9-25-95	DOE Monitor G. R. Schroeder	Date 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: ISSUE THE FINAL PROGRAM PLAN (FY-00)	Date: 28AUG95
Assigned To: Spent Nuclear Fuel Project	CIN: N/A
Program WBS Designator: 1.4.1.01.02	Due Date: 09/02/99
Control Number: S01-99-211	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number _____	☐ Report ☐ Letter ☐ Drawings X Other (specify) 2000 Multi-Year Program Plan	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description:
The 2000 Multi-Year Program Plan (Program Plan) is to provide the Spent Nuclear Fuel (SNF) Project technical, schedule, and cost baseline for the life cycle cost associated with the SNF Project mission, vision, and objectives.

Description of what constitutes completion of this milestone:
Completion of this milestone will be the issuance of the SNF Project 2000 Program Plan. The 2000 Program Plan will document the SNF Project technical, schedule, and cost baseline for life cycle costs associated with the SNF Project. The Program Plan will be consistent with guidance provided from the U.S. Department of Energy, Richland Operations Office, Planning Integration Division.

Cost Account Manager	Date	Program/Project Manager	Date
J. L. Denning	9-25-95	J. C. Fulton	9-25-95
Program Element Manager	Date	DOE Monitor	Date
D. W. Siddoway	9-25-95	G. R. Schroeder	9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete Basin Fuel Removal	Date: 09/06/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1	Due Date: 12/31/99
Control Number: S00-00-902	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
X DOE-HQ ☐ DOE-RL ☐ CONTRACTOR	X State X Federal X DOE ☐ RCRA X TPA Number M-34-00-T08	☐ Report ☐ Letter ☐ Drawings X Other (specify) Complete fuel removal	X DOE-HQ ☐ DOE-RL ☐ Other (specify)

Milestone Description: Complete the removal of fuel from the K Basins.

TPA date to complete this activity will be negotiated with the regulators.

Description of what constitutes completion of this milestone: Removal of fuel from the K Basins.

Cost Account Manager Date	Program/Project Manager Date 9-26-95
Program Element Manager Date	DOE Monitor Date

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: ISSUE THE FY 2002 ACTIVITY DATA SHEET	Date: 28AUG95
Assigned To: Spent Nuclear Fuel Project	CIN: N/A
Program WBS Designator: 1.4.1.01.02	Due Date: 04/28/00
Control Number: S01-00-111	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	X Report ☐ Letter ☐ Drawings ☐ Other (specify)	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description: The 2002 Activity Data Sheet (ADS) is the Congressional Budget Request for future planning activities to achieve the Spent Nuclear Fuel (SNF) Project mission and goals. The ADS will reflect the resource planning base for Fiscal Year (FY) 2001 and FY's 2002 through 2007.

Description of what constitutes completion of this milestone: Submittal of the 2002 ADS will constitute completion of this milestone. The ADS is to reflect current and future planning strategies for achieving the SNF Project mission.

Cost Account Manager	Date	Program/Project Manager	Date
J. L. Denning	9-25-95	J. C. Fulton	9-25-95
Program Element Manager	Date	DOE Monitor	Date
D. W. Siddoway	9-25-95	G. R. Schroeder	9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Basin Fuel in Dry Storage	Date: 09/06/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1	Due Date: 06/30/00
Control Number: S00-00-903	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
X DOE-HQ ☐ DOE-RL CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number DNFSB 94-1 Sub 7	☐ Report ☐ Letter ☐ Drawings X Other (specify) Complete processing fuel.	X DOE-HQ ☐ DOE-RL ☐ Other (specify)

Milestone Description: K Basin spent fuel in dry storage.

Description of what constitutes completion of this milestone: All of the K Basin spent fuel has been placed in dry storage.

Cost Account Manager Date	Program/Project Manager Date 9-26-95
Program Element Manager Date	DOE Monitor Date

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Turnover Conditioning Facility to Transition Projects	Date: 8/23/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.08	Due Date: 07/05/00
Control Number: S08-00-002	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	☐ Report ☒ Letter ☐ Drawings ☐ Other (specify)	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description: After completion of conditioning of all fuel removed from the K Basins, the Conditioning Facility will be turned over to the Facility Transition Project for initiation of deactivation operations.

Description of what constitutes completion of this milestone: A letter confirming completion of required turnover activities, signed off by SNF and Facility Transition management.

Cost Account Manager	Date	Program/Project Manager	Date
J. R. Frederickson	9/25/95		9-25-95
Program Element Manager	**Date**	**DOE Monitor**	**Date**
E. W. Gerber	9/25/95	G TRENCHARD	9-25-95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete Conditioning Facility Startup Procedures	Date: 9/18/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.08.02.02	Due Date: 7/05/00
Control Number: S08-00-001	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal x DOE ☐ RCRA ☐ TPA Number	☐ Report X Letter ☐ Drawings ☐ Other (specify)	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description: Complete Conditioning Facility operations for processing of spent fuel prior to Canister Storage Building (CSB) storage.

Description of what constitutes completion of this milestone: Processing of all spent fuel which requires conditioning and an internal SNFP letter which documents the completion of all required campaigns.

Cost Account Manager ~~M. E. Witherspoon~~ BRENSHAW Date 9/25/95	Program/Project Manager J. C. Fulton Date 5-25-95
Program Element Manager M. E. Witherspoon Date 9/25/95	DOE Monitor G. TRENCHARD Date 9-25-95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: ISSUE THE FINAL PROGRAM PLAN (FY-01)	Date: 28AUG95
Assigned To: Spent Nuclear Fuel Project	CIN: N/A
Program WBS Designator: 1.4.1.01.02	Due Date: 09/01/00
Control Number: S01-00-211	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	☐ Report ☐ Letter ☐ Drawings X Other (specify) 2001 Multi-Year Program Plan	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description: The 2001 Multi-Year Program Plan (Program Plan) is to provide the Spent Nuclear Fuel (SNF) Project technical, schedule, and cost baseline for the life cycle cost associated with the SNF Project mission, vision, and objectives.

Description of what constitutes completion of this milestone: Completion of this milestone will be the issuance of the SNF Project 2001 Program Plan. The 2001 Program Plan will document the SNF Project technical, schedule, and cost baseline for life cycle costs associated with the SNF Project. The Program Plan will be consistent with guidance provided from the U.S. Department of Energy, Richland Operations Office, Planning Integration Division.

Cost Account Manager Date J. J. Denning 9-25-95	Program/Project Manager Date J. C. Fulton 9-25-95
Program Element Manager Date D. W. Siddoway 9-25-95	DOE Monitor Date G. R. Schroeder 9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete Basin Debris Removal	Date: 9/21/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.04.05.01	Due Date: 10/02/00
Control Number: S04-00-507	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL ☐ CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number	☐ Report ☐ Letter ☐ Drawings X Other (specify)	☐ DOE-HQ X DOE-RL ☐ Other (specify)

Milestone Description:

Remove all racks, canisters and miscellaneous debris from K East Basin.

Description of what constitutes completion of this milestone:

Approval of an Acceptance of Completed Work with punch list items.

Cost Account Manager	Date	Program/Project Manager	Date
D. S. Takasumi D S Takasumi	9/25/95	J. C. Fulton J C Fulton	9-26-95
Program Element Manager	Date	DOE Monitor	Date
M. J. Wiemers M J Wiemers	9/25/95	O. M. Holgado O M Holgado	9/25/95

Westinghouse Hanford Company
MILESTONE DESCRIPTION SHEET

Title: Complete Sludge Removal	Date: 9/6/95
Assigned To: Spent Nuclear Fuel Project	CIN:
Program WBS Designator: 1.4.1.04.04.02.01.01	Due Date: 10/31/00
Control Number: S04-01-215	Rev: 0

MILESTONE TYPE:	DIVISION:	DELIVERABLE:	ADDRESS TO:
☐ DOE-HQ X DOE-RL CONTRACTOR	☐ State ☐ Federal X DOE ☐ RCRA ☐ TPA Number _____	☐ Report ☐ Letter ☐ Drawings X Other (specify) Complete Sludge Removal	☐ DOE-HQ ☐ DOE-RL X Other (specify) WHC K Basin Operations

Milestone Description: Removal of KE floor sludge and transfer to TWRS.

Description of what constitutes completion of this milestone: Complete the removal of KE floor sludge and transfer to TWRS.

Cost Account Manager Date F. W. Moore	Program/Project Manager Date J. C. Fulton
Program Element Manager Date M. J. Wiemers	DOE Monitor Date O. M. Holgado

TAB X

3.3 COST BASELINE

In this section of the Program Plan, the cost associated for performing schedule activities will be presented. Resources identified in the schedule date base are supported by basis of estimate documentation. A profile of the labor resources is documented and represents Hanford Site standard job classifications. There is a direct correlation between the resources identified in the schedule baseline and the summary reports reflected in this section.

3.3.1 Cost Baseline Summary By Year

Table 3-10 represents the cost baseline yearly summary as generated from priced resources contained in the integrated schedule baseline. Various fund types are documented and represented in the table. A detailed explanation of how the cost profile was generated is documented in Section 3.3.2, "Basis for Estimate."

3.3.2 Basis of Estimate

One goal in developing the technical, schedule, and cost baseline for the SNF Project was to provide an effective management tool for the efficient utilization of resources during performance of the SNF Project work scope. Another primary goal was to develop sound, well documented, technical, schedule, and cost baselines that will establish defensible schedule activities and resource estimates. The intent is to provide a plan that will withstand the scrutiny of budget review committees.

To achieve these goals the SNF Project, utilizing systems engineering methodologies, prepared a technical baseline that is traceable from the Hanford Mission and Strategic Plan to the lowest levels of the SNF Project WBS. Scopes of work and end item deliverables were generated for each level in the WBS represented in Figure 3-4. Sequential schedule activities zoned by the WBS were developed to accomplish the scopes of work identified. Integration of the schedule activities both internal and external to the SNF Project were developed. Resource allocations for the schedule activities were generated and placed in the schedule data base. Time constraints and resource constraints established for the SNF Project were evaluated against the schedule baseline and adjustment were made where feasible.

The result is a schedule baseline that utilizes critical path methodologies and Activity Based Cost Estimating practices. Basis for Estimate documentation is available that quantifies units of measure, provides defensible resource estimates, and documents planning assumptions. Signing of this Program Plan and subsequent work authorization acknowledges acceptance of the information contained in the basis of estimate documentation. This backup documentation can be reviewed by contacting the WHC SNF Project Office.

3.3.3 Planned Staffing Profiles

Table 3-11 provides an annual staffing profile for the SNF Project. The information is based on the labor resources identified in the schedule baseline for WHC, ICF-KH, PNL, and BCSR.

TABLE 3 – 10

Cost Baseline Summary by Year ($ In Thousands)

Program Element/ADS	Fund Type (OP, CE, LI, GPP,)	FY 1996 SMS Planning Guidance	FY 1997 Plan	FY 1998 Plan	FY 1999 Plan	FY 2000 Plan	FY 2001 Plan	FY 2002 Plan	TOTAL
1.4.1.1/ Project Integration	OP	9,255	10,500	10,046	9,764	8,030	4,414		52,009
	CE								0
	GPP								0
	LI								0
1.4.1.2/ System Integration	OP	15,185	11,075	8,724	2,555	1,527	8		39,074
	CE								0
	GPP								0
	LI								0
1.4.1.3/ K Basin Maint. & Op's	OP	29,553	29,685	29,671	29,529	30,662	5,250		154,350
	CE								0
	GPP								0
	LI								0
1.4.1.4/ K Basin Mat. Rem./Clean–Up	OP	25,246	28,578	16,371	19,226	20,534	588		110,543
	CE								0
	GPP								0
	LI								0
1.4.1.5/ MCO Acquisition	OP	2,724	6,221	28,270	10,816				48,031
	CE								0
	GPP								0
	LI								0
1.4.1.6/ Cask Trans. System	OP	1,446	1,587	459					3,492
	CE	5,905	13,184	1,262					20,351
	GPP								0
	LI								0
1.4.1.7/ Canister Stor. Building	OP	1,702	5,611	8,907	9,412	5,657	716		32,005
	CE								0
	GPP								0
	LI	38,744	39,066	1,673					79,483
1.4.1.8/ Conditioning Facility	OP	1,830	2,428	6,321	19,084	12,618			42,281
	CE								0
	GPP								0
	LI	3,101	26,739	11,000					40,840
1.4.1.9/ Other Hanf. Fuel	OP	1,312	323	274	3,366	3,094	4,789	1,980	15,138
	CE								0
	GPP								0
	LI								0
Total Program Cost Summary	OP	88,253	96,008	109,043	103,752	82,122	15,765	1,980	496,923
	CE	5,905	13,184	1,262	0	0	0	0	20,351
	GPP	0	0	0	0	0	0	0	0
	LI	41,845	65,805	12,673	0	0	0	0	120,323
	Total	**$136,003**	**$174,997**	**$122,978**	**$103,752**	**$82,122**	**$15,765**	**$1,980**	**$637,597**

TABLE 3-11
PLANNED STAFFING PROFILE

Planned Staffing (Full Time Equivalent)				NOTE: Job Family Only After 1997				
JOB FAMILY	Number							
Job category		1996	1997	1998	1999	2000	2001	2002
MANAGERS	M000			56.0	51.8	42.8	4.3	.3
First line	M010	16.7	22.6					
General/executive	M020	27.7	26.8					
Project/Program	M030	13.5	9.3					
Other-Project Eng.	M040	12.7	11.5					
Subtotal		70.6	70.2	56.0	51.8	42.8	4.3	.3
ENGINEERS	E000			158.6	130.2	128.9	20.1	2.0
Chemical	E010	27.3	25.1					
Civil	E020	5.8	5.4					
Computer	E030	.3	.9					
Electrical	E040	16.5	12.7					
Environmental	E050	5.7	4.5					
Industrial	E060							
Mechanical	E070	66.7	54.2					
Nuclear	E080	3.5	3.4					
Petroleum/Mining	E090	.2	.2					
Plant	E100	57.2	62.8					
Quality Control	E110	9.1	8.7					
Safety	E120	9.2	5.5					
Other	E130	26.8	35.2					
Subtotal		228.3	218.6	158.6	130.2	128.9	20.1	2.0

TABLE 3-11
PLANNED STAFFING PROFILE

Planned Staffing (Full Time Equivalent)				NOTE: Job Family Only After 1997				
JOB FAMILY	Number							
SCIENTISTS	S000			.1	0.0	0.0	0.0	0.0
Chemists	S010	.2						
Environmental	S020	.6	1.8					
Geologists	S030							
Life	S040							
Material	S050	.8						
Mathematicians	S060							
Physicists	S070							
Social	S080							
Other	S090	.1						
Subtotal		1.7	1.8	.1	0.0	0.0	0.0	0.0
ADMIN/OTHER PROFESSIONALS	P000			37.1	31.5	29.6	4.4	0.0
Accountant/auditor	P010	10.8	11.0					
Architect	P020	1.9	.5					
Buyers/procurement	P030	2.7	2.9					
Communications	P040	2.5	2.5					
Compliance inspectors	P050	1.8	1.9					
Computer System Anal	P060	.1	.1					
Cost Est/planner/sch	P070	14.1	14.9					
Health Physics	P080	7.8	6.5					
Industrial Hygiene	P090	.8	.7					
Lawyers	P100							
Personnel/Labor Rela	P110							

TABLE 3-11
PLANNED STAFFING PROFILE

Planned Staffing (Full Time Equivalent)				NOTE: Job Family Only After 1997				
JOB FAMILY	Number							
Physicians	P120							
Physician Assis/Nurs	P130							
Safeguard & Security	P140	1.0	2.2					
Tech Writers & Edit	P150	4.3	5.0					
Trainers	P160	.5	2.5					
Other	P170	2.1	2.3					
Subtotal		50.4	53.0	37.1	31.5	29.6	4.4	0.0
GEN ADM/SECRETARY/CLERK	G000			51.5	44.3	40.6	5.4	.2
Admin Assistants	G010	9.0	10.8					
Office Clerks (Gen)	G020	28.6	25.3					
Office Clerks (Special)	G030	4.9	5.9					
Secretaries	G040	22.4	22.0					
Typist/Word Process	G050	1.3	.5					
Other	G060							
Subtotal		66.2	64.5	51.5	44.3	40.6	5.4	.2
TECHNICIANS	T000			63.0	85.6	76.8	9.9	0.0
Computer Oper/Coder	T010							
Drafters	T020	10.7	5.1					
Engrs/Tech	T030	9.3	5.9					
Envir. Sci Technicians	T040							
Health Phys. Technic.	T050	27.7	26.0					
Indus. Saf/Health Tech	T060							
Instru/Control Tech	T070	2.9	4.7					

TABLE 3-11
PLANNED STAFFING PROFILE

Planned Staffing (Full Time Equivalent)				NOTE: Job Family Only After 1997				
JOB FAMILY	Number							
Lab. Technicians	T080							
Media Technicians	T090							
Survey/Map Tech	T100	.1						
Other	T110	.8	.1					
Subtotal		51.5	41.8	63.0	85.6	76.8	9.9	0.0
CRAFTS	C000			60.8	79.0	64.2	19.8	10.4
Carpenters	C010	21.5	13.0					
Electricians	C020	22.2	12.4					
HVAC	C030							
Machinists	C040	.5	.2					
Masons	C050							
Millwrights	C060	2.1	1.5					
Painters	C070	2.3	3.2					
Plumbers/Pipefitters	C080	14.3	4.1					
Struct/Metal Workers	C090	2.8	5.9					
Vehic./Mob Equip Mech	C100	.1	.6					
Welders	C110	.1						
Other	C120	.2	.6					
Subtotal		66.1	41.5	60.8	79.0	64.2	19.8	10.4
OPERATORS	R000			135.7	218.4	142.9	9.0	.2
Chemical System	R010							
Drillers	R020							
Material Moving Equip	R030	.6	1.0					

TABLE 3-11
PLANNED STAFFING PROFILE

Planned Staffing (Full Time Equivalent)				NOTE: Job Family Only After 1997				
JOB FAMILY	Number							
Nuclear Plant	R040	10.4	12.8					
Nuclear Waste Process	R050							
Production System	R060	.1						
Utilities Waste Process	R070	25.0	25.0					
Other	R080	1.8	14.2					
Subtotal		37.9	53.0	135.7	218.4	142.9	9.0	.2
LABOR & GEN WORKERS	L000			17.8	17.8	13.0	1.7	0.0
Firefighters	L010							
Floor Service	L020	3.5	3.5					
Hand/Help Lab Gen	L050	.2	.6					
Hand/Help Lab Spec	L060							
Janitors/Cleaners	L030							
Laundry Workers	L040							
Security Guards	L080	14.3	14.4					
Light Vehicle Drivers	L070	5.0	6.7					
Other	L090							
Subtotal		23.0	25.2	17.8	17.8	13.0	1.7	0.0
TOTAL FTEs		595.6	569.4	580.7	658.6	538.7	74.7	13.0

TAB X

3.4 PERFORMANCE MEASURES

The approval of this Program Plan and subsequent work authorization will provide the SNF Project with a Performance Measurement Baseline. Progress will be monitored through schedule and cost performance and variance analysis. This performance measurement baseline will be kept current and will be managed utilizing baseline change control methodologies. Performance measures will be conducted utilizing the earned value method. Earned value is a method applied to measure the value of work accomplished compared to the value of work planned to be accomplished. The earned value method provides an objective method to calculate progress towards the completion of the SNF Project goals.


TAB
X

4.0 EXECUTION YEAR

The FY 1996 execution year documentation provides the SNF Project performance measurement technical, schedule, and cost baseline. This baseline will provide for the execution of work by formal work authorization from DOE-RL. The configuration of the baseline will be maintained utilizing the change control process. Changes to the baseline are incorporated after an approved programmatic change request is received. Performance reporting will be maintained for cost and schedule variance for the duration of the FY.

Section 4.1 of this Program Plan provides general objectives or specific activities that must occur in the execution year to support the SNF Project mission and goals.

The Program Performance Baseline Schedule depicts the scheduled activities down to the task level for FY 1996 and is presented in Section 4.2. The schedule data base will be maintained to enable performance reporting. The schedule serves as a management tool and for the execution of work. This schedule is generated from the resource loaded time-phased logic network data base established for the SNF Project.

Documented in Section 4.3 are the resource cost profiles by month for FY 1996. This budget detail provides for the estimated resource requirements. Included in the total costs presented are fully burdened rates for resources. The resources were priced using the Hanford standard rates as applied by the Financial Data System. Cost profiles are documented at the Cost Account level. Table 4.3.1 represents a summary cost profile for Operating Expense, Capital Equipment is documented as Table 4.3.2, General Plant Projects as Table 4.3.3, and Line Item Cost summary is represented as Table 4.3.4.

Section 4.4 provides the Project funding requirements for the execution year. A funding summary for the SNF Project is documented in Table 4.4. Details are further delineated in Table 4.4.1, providing information on the Program Element funding requirements by fund type. A projected carryover chart is provided and represented as Table 4.4.2 depicting carryover at the Program Element.

TAB X

4.1 TECHNICAL OBJECTIVES

The technical objectives for FY 1996 are provided for the Program Element level of the WBS. These objectives are supported by the schedule activities contained in the FY 1996 schedule baseline. Objectives for each Program Element follow:

1.4.1.01 Project Integration

- Develop and Document the FY 1997 technical, schedule, and cost baseline
- Provide the Congressional Budget Request for the SNF Project by issuing the 1998 Activity Data Sheet
- Provide essential performance measurement reporting to effectively manage the project
- Provide for the interpretation of regulatory requirements
- Continue effective involvment with stakholders, tribal nations, the public, and our regulators
- Maintain a Quality Assurance Program and interface with the SNF National Program

1.4.1.02 Technical Integration

- Maintain the technical baseline for the SNF Project through systems engineering analysis
- Maintain the appropriate and required documentaion for configuation control, mangement practices, and safegards
- Maintain the essential Characterization program for fuel and sludge
- Initiate test programs for fuel drying, sludge transport, reactivity, and TWRS acceptability
- Issue technology reports for energetic reactions under water, basis for dry fuel storage, basis of corrosion and gas evolution, sludge handling and disposition technology
- Issue K Basins draft EIS, final EIS, and Record of Decision

1.4.1.03 K Basin Maintenance and Operation

- Perform monthly surveillances for draw down testing, level, pH, temperature instrumentation calibrations and sludge depth
- Perform quarterly fissile material equipment sampling and analysis

- Complete and verify training for special nuclear material personnel
- Ensure required work control to maintain facilities in safe configuation
- Complete Design Basis Reconstitution; issue 160 "As Found, Safe to Operate" Essential drawings

1.4.1.04 K Basins Material Removal/Cleanup

- Establish Essential System Recovery physical systems at the K Basins
- Maintain Cold Test Facility for the SNF Project development and training
- Establish the Fuel Removal project
- Continue with dose reduction measures
- Award Fuel Removal design tasks for definitions equipment, basin modifications
- Prepare the K East Basin sludge process and loadout
- Cleanout debris at K East Basin south loadout pit
- Develop F&R for water systems upgrades and legacy IXC disposal
- Install and turnover Basin Water System cartridge filter system upgrade
- Initiate K Basin facility transition and end point criteria

1.4.1.05 MCO Acquisition

- Develop MCO phase I design
- Prepare MCO topical design report
- Perform MCO qualification test

1.4.1.06 Cask/Transportation System

- Award Cask/Transporter Design/Fab purchase order
- Prepare transporter final design
- Prepare cask preliminary design
- Fabricate and deliver test cask

- Perform cask qualification test
- Prepare basin transport modification design

1.4.1.07 Canister Storage Building

- Develop CSB Functions and Requirement
- Complete CSB advanced conceptual design
- Complete CSB Title II design
- Obtain KD-3B
- Award design contract
- Mobilize facility and site contractor at the CSB site
- Start facility and site site construction
- Prepare CSB test specification
- Obtain DOE and EPA approval
- Issue approved PSE/FHA for CSB
- Issue draft CSB Safety Analysis Report

1.4.1.08 Conditioning Facility (CF)

- Issue CF feed material design basis document
- Issue CF final product criteria
- Issue CF process flow diagrams
- Prepare Hot Cell for conditioning test program
- Prepare CF conceptual design

1.4.1.09 Other Hanford Fuel Retrieval Processing and Storage

- Complete transfer of N Reactor fuel at PUREX to K Basins
- Obtain interface agreement with the Low Level Waste Burial Grounds to accept their stored fuel into the SNFP
- Complete an alternatives study for acceptance of the T Plant into the SNFP

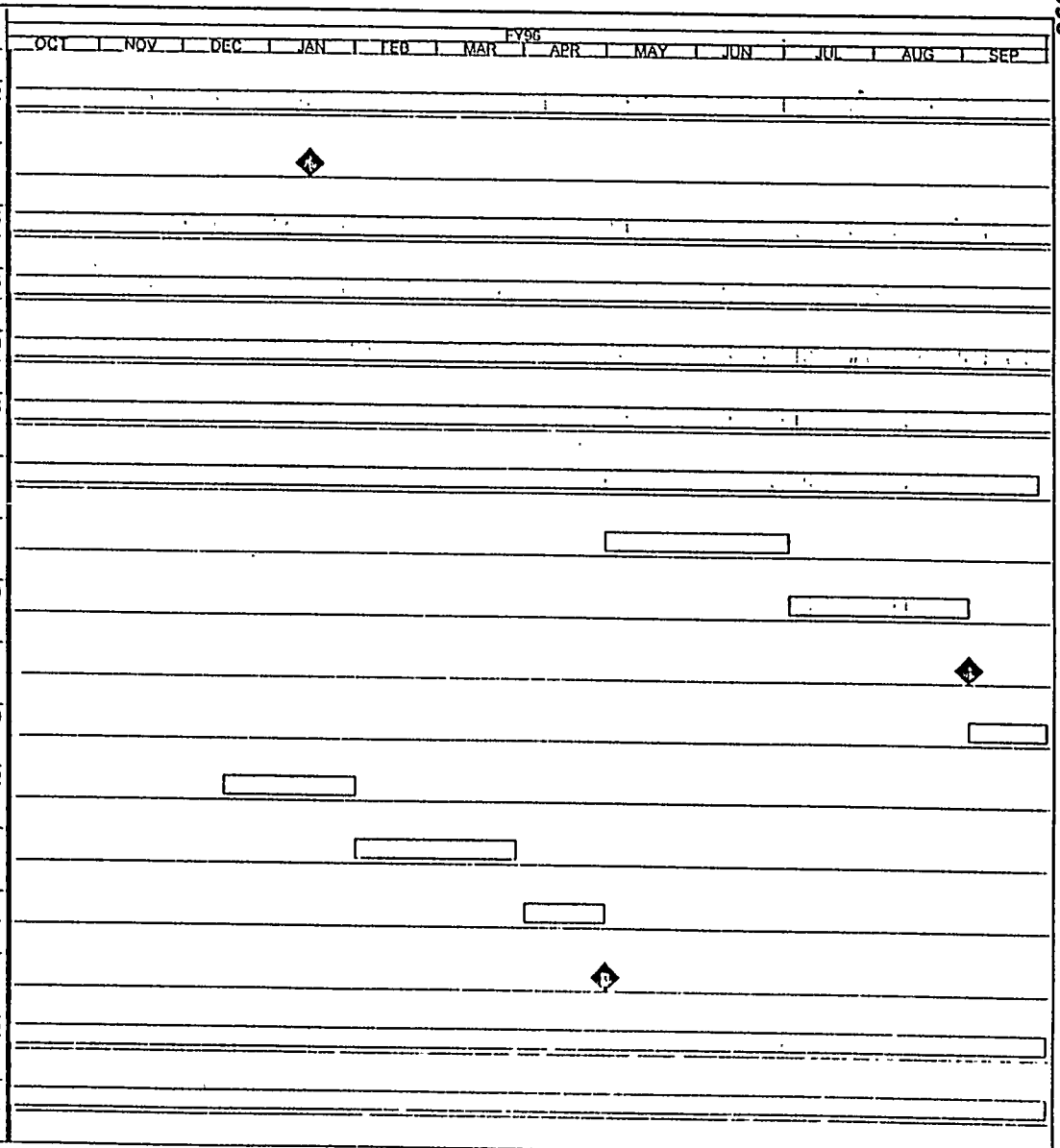
- Complete transfer of the fuel stored in the PNL 324, 325, and 328 Labs to the 400 Area Interim Storage Area
- Maintain interface with fuel storage at the 308 Building
- Provide review of source term specification for FFTF fuel
- Complete relocation alternatives study for FFTF fuel
- Complete transfer of N Reactor fuel pieces stored in the N Basin to the K Basins

TAB X

4.2 PROGRAM PERFORMANCE BASELINE SCHEDULE

TABLE 4.2
PROGRAM PERFORMANCE BASELINE SCHEDULE
CONSISTING OF 22 PAGES

Early Start	Early Finish	Original duration	Milestone No.	Milestone Type	Budgeted Cost ($K)
+ 1LAA010101 Integrated Schedule Prep					
10-02-95	12-01-97	546			907.2
+ Submit Change Request for SNFP Initiation of IPS					
	01-15-96	0	S01-96-907	5	
+ 1LAA010102 Plan of the Week					
10-02-95	12-01-97	546			34.5
+ 1LAA010103 "Mgmt, Training, etc"					
10-02-95	12-01-97	546			156.6
+ 1LAA010201 MYPP Phase 1					
10-02-95	12-01-97	546			60.0
+ 1LAA010202 MYPP Phase 2					
10-02-95	12-01-97	546			6.8
+ 1LAA020101 Proj Baseline Control Admin					
10-02-95	09-27-96	250			4510.1
+ 1LAA020201 Prepare Draft Program Plan					
04-30-96	07-01-96	44			23.1
+ 1LAA020202 Prepare Final Program Plan					
07-02-96	09-02-96	43			23.9
+ M/S-O - ISSUE FINAL PROGRAM PLAN (FY-97)					
	09-02-96	0	S01-96-211	5	
+ 1LAA020203 Obtain FY 1997 Work Authoriza					
09-03-96	09-30-96	19			6.0
+ 1LAA020301 Prep Drft Activity Data Sheet					
12-15-95	01-31-96	32			12.2
+ 1LAA020302 ADS Review					
02-01-96	03-28-96	40			8.1
+ 1LAA020303 Prepare Final ADS					
04-01-96	04-29-96	21			8.1
+ M/S-O - ISSUE FY-97 ADS					
	04-29-96	0	S01-96-111	5	
+ 1LAA020401 Site Reporting					
10-02-95	09-30-96	251			33.2
+ 1LAA020501 Proj Baseline Financial Cntrl					
10-02-95	09-30-96	251			548.1
+ 1LAA030101 Administration FY96					



Project Start 10-01-92
Project Finish 09-30-11
Data Date 10 02 95
Plot Date 09 26 95
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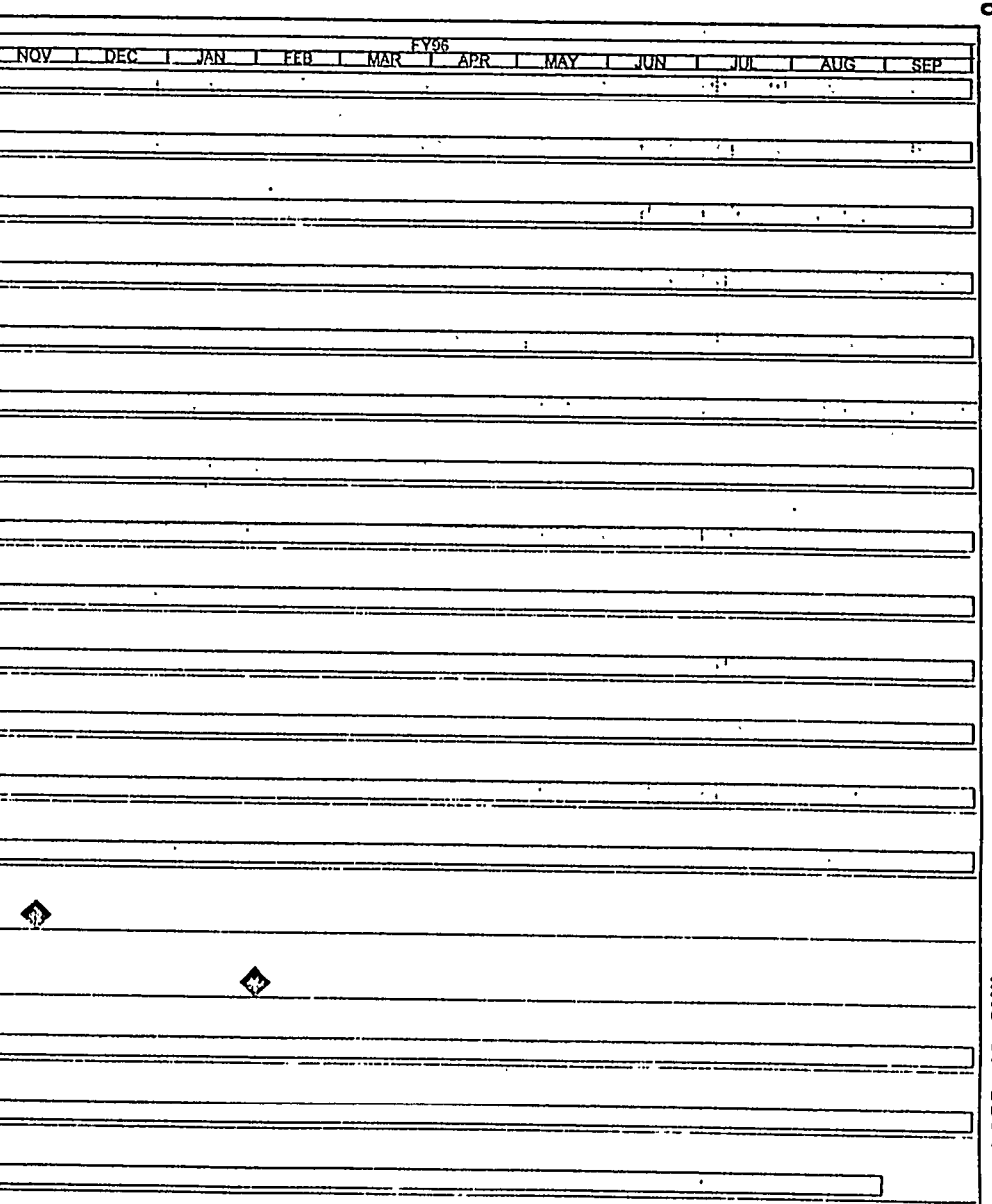
Early Bar
Progress Bar
Critical Activity

1P02

Westinghouse Hanford Company
Spent Nuclear Fuel Project
Program Perfromance Baseline Sched.

Sheet 1 of 22

Early Start	Early Finish	Original duration	Milestone No.	Milestone Type	Budgeted Cost ($K)
10-02-95	09-30-96	251			633.8
+ 1LAA030201 Reporting FY96					
10-02-95	09-30-96	251			41.7
+ 1LAA040101 QA Mgmt & Oversite FY96					
10-02-95	09-30-96	251			270.6
+ 1LAA050101 Regulatory Prog Phase 1 & 2					
10-02-95	09-30-96	251			1108.2
+ 1LAA060101 Envr Compliance Phase 1 & 2					
10-02-95	09-30-96	251			175.4
+ 1LAA070101 National Programs					
10-02-95	09-29-00	1,264			118.5
+ 1LAA080101 Regulatory Integr Phase 1					
10-02-95	09-30-96	251			277.2
+ 1LAA090101 Public Participation Phase 1					
10-02-95	09-30-96	251			116.9
+ 1LAA090201 Media Relations Phase 1					
10-02-95	09-30-96	251			72.2
+ 1LAA090301 Tribal Relations Phase 1					
10-02-95	09-30-96	251			25.9
+ 1LAA090501 Government Relations Phase 1					
10-02-95	09-30-96	251			39.4
+ 1LAA090601 Employee Relations Phase 1					
10-02-95	09-30-96	251			37.3
+ 1LBB010101 Sustems Engr Integrtn Phase 1					
10-02-95	09-30-96	251			678.2
+ M/S-K-ISSUE FY-96 TECHNICAL BASELINE DOCUME					
	11-15-95	0	S02-96-105	5	
+ M/S-K-COMPL CONDUCT SNFP SYS REQUIREMTS RE					
	01-30-96	0	S02-96-110	5	
+ 1LBB010201 Systems Engr Implmntn Phase 1					
10-02-95	09-30-96	251			677.4
+ 1LBB010301 Sys Engr Subproj Supt Phase 1					
10-02-95	09-30-96	251			724.8
+ 1LBB020101 Establish Safety Basis					
10-02-95	08-29-96	230			488.6



Project Start 10-01-92
Project Finish 09-30-11
Data Date 10-02-95
Plot Date 09-26-95
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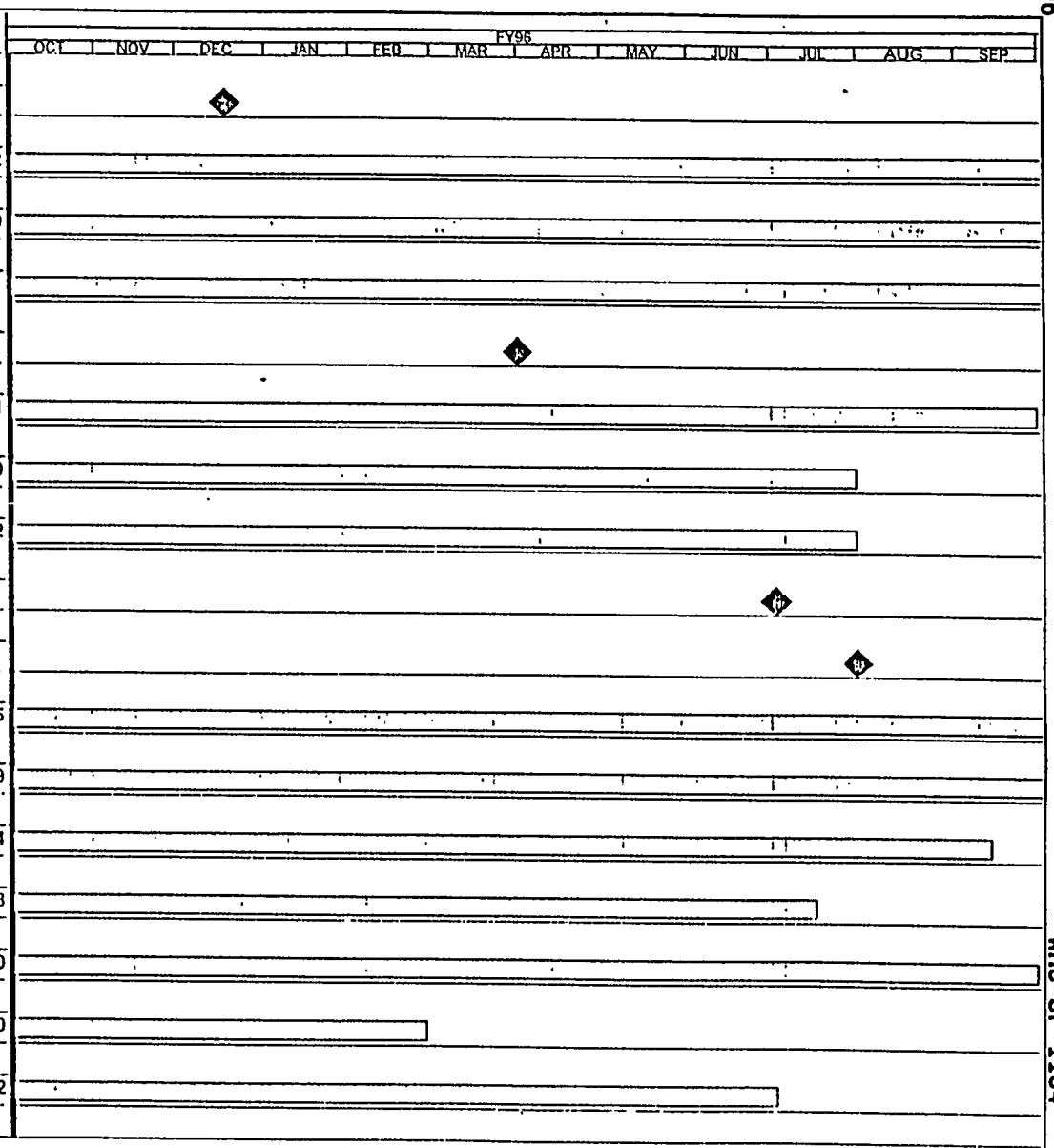
Early Bar
Progress Bar
Critical Activity

TP02

Sheet 2 of 22

Westinghouse Hanford Company
Spent Nuclear Fuel Project
Program Perfromance Baseline Sched.

Early Start	Early Finish	Original duration	Milestone No.	Milestone Type	Budgeted Cost ($K)
+ M/S-O-Complete Process Risk Mgmt Plan					
	12-18-95	0	S02-96-205	5	
+ 1LBB020102 Process Engineering Support					
10-02-95	09-18-97	496			551.2
+ 1LBB020201 SNF/Waste Mgmt Interface (TP)					
10-02-95	06-28-00	1,200			126.0
+ 1LBB020301 Prepare Rev 0 Process Flow					
10-02-95	09-30-97	504			
+ Issue SNF Process Flow Diagram					
	03-31-96	0	S02-96-225	5	
+ 1LBB020401 System Design Description					
10-02-95	09-30-96	251			111.1
+ 1LBB030101 Description of Energetic Chem					
10-02-95	07-31-96	209			641.0
+ 1LBB030102 Dev Basis to Eval MCO					
10-02-95	07-31-96	209			571.2
+ ISSUE FINAL REPORT (TASKS P-1/P-3)					
	07-01-96	0	S02-96-330	6	
+ ISSUE FINAL REPORT ON SLUDGE BEHAVIOR					
	07-31-96	0	S02-96-325	6	
+ 1LBB030201 Dev Basis for Tech Basis F/FL					
10-02-95	09-30-98	758			472.5
+ 1LBB030303 National Program Support					
10-02-95	11-30-00	1,307			264.9
+ 1LBB040101 Prep Charact Mgmt Plan					
10-02-95	09-13-96	240			122.4
+ 1LBB040201 Video/Boroscope 2nd KW Shipmt					
10-02-95	07-15-96	197			181.8
+ 1LBB040301 Eval KW G/L Sampling Data					
10-02-95	09-30-96	251			549.0
+ 1LBB040401 Ship 2nd Shipmt to Hot Cells					
10-02-95	02-27-96	101			494.0
+ 1LBB040402 Prepare for Shipment from KE					
10-02-95	07-01-96	189			1006.2
+ Complete Shipment of KE Fuel to Hot Cells					



Project Start	10-01-92	Early Bar	TP02
Project Finish	09-30-11	Progress Bar	
Data Date	10-02 95	Critical Activity	
Plot Date	09 26 95		

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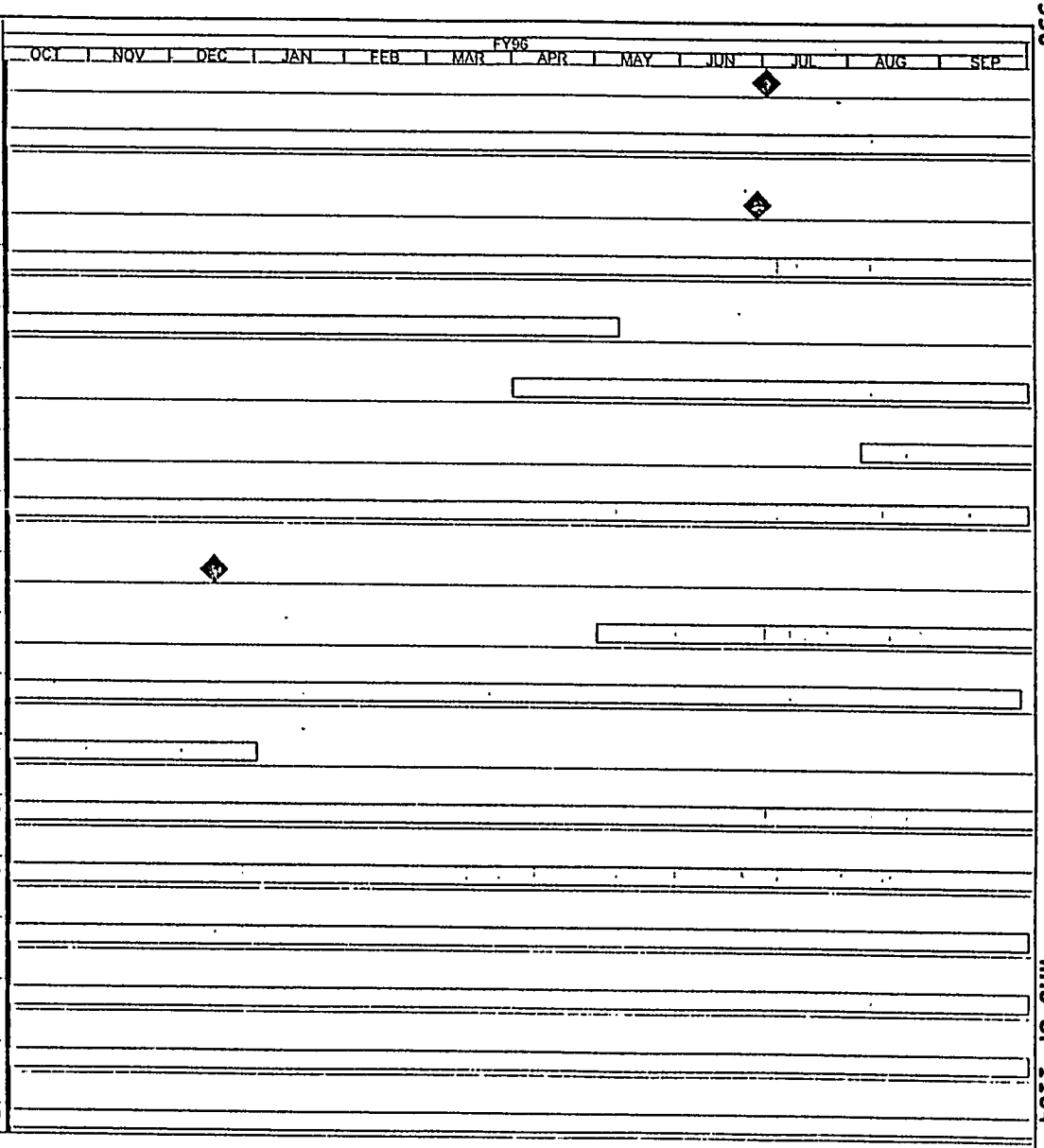
Spent Nuclear Fuel Project
Program Perfromance Baseline Sched.

Sheet 3 of 22

Early Start	Early Finish	Original duration	Milestone No.	Milestone Type	Budgeted Cost ($K)
	07-01-96	0	S02-96-415	5	
+ 1LBB040501 DE 1st Fuel Shipment					
10-02-95	03-31-97	376			2274.1
+ Issue Drying Data Report for Process Definition					
	06-28-96	0	S02-96-425	5	
+ 1LBB040601 Fcity Prep & Rcpt of KE Fuel					
10-02-95	03-31-97	376			660.4
+ 1LBB040701 Smpl KW Cnstr Sldge/Send Labs					
10-02-95	05-09-96	153			488.6
+ 1LBB040702 Smpl KE Cnstr Sldg/Send Labs					
04-01-96	09-30-96	127			548.1
+ 1LBB040703 Sample KW Floor/Pit Sludge					
08-05-96	03-31-97	165			108.6
+ 1LBB040801 Detm KE Floor/Pit Sludge					
10-02-95	09-30-96	251			708.3
+ Compl Determination of KE Sludge Composition					
	12-15-95	0	S02-96-430	5	
+ 1LBB040901 Detm Canister Sludge Removal					
05-01-96	01-02-97	168			706.6
+ 1LBB041101 Disposition Wastes & SNF					
10-02-95	09-27-96	250			579.4
+ 1LBB060101 Process K-Basin EIS					
10-02-95	12-31-95	60			77.8
+ 1LBB070101 Engr Planning & Mgmt Phase 1					
10-02-95	06-30-98	694			154.5
+ 1LBB070201 Tech Prog Dvlp/Intgrt Phase 1					
10-02-95	06-30-98	694			999.3
+ 1LCC010101 Purchase Utilities					
10-02-95	09-30-96	251			1610.1
+ 1LCC010102 Basin Operations					
10-02-95	09-30-96	251			4303.8
+ 1LCC010103 Onshift Engineering Services					
10-02-95	09-30-96	251			301.1
+ 1LCC010104 Onshift Training Services					
10-02-95	10-16-96	263			297.0



Project Start 10-01-92
Project Finish 09-30-11
Data Date 10-02-95
Plot Date 09-26-95
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Early Bar
Progress Bar
Critical Activity

TP02

Westinghouse Hanford Company
Spent Nuclear Fuel Project
Program Perfromance Baseline Sched.

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Early Start	Early Finish	Original duration	Milestone No.	Milestone Type	Budgeted Cost ($K)
+ 1LCC010201 Operate Water Treatment Plant					
10-02-95	09-30-96	251			360.3
+ 1LCC010202 Effluent Sampling					
10-02-95	09-30-96	251			250.3
+ 1LCC010301 Criticality Surveillance					
10-02-95	09-30-96	251			102.0
+ 1LCC010302 OSR/Envr Surveillance					
10-02-95	12-02-96	294			253.5
+ 1LCC010401 Waste Management/ Handling					
10-02-95	09-30-96	251			621.4
+ 1LCC010402 SW Expense Assessment					
10-02-95	09-30-96	251			573.6
+ 1LCC010501 Emergency Preparedness					
10-02-95	09-30-96	251			64.7
+ 1LCC010502 Operational Drills					
10-02-95	09-30-96	251			64.7
+ 1LCC010503 Occurance Reporting					
10-02-95	09-30-96	251			198.1
+ 1LCC010601 SNM Inventory/ Accountability					
10-02-95	09-30-96	251			107.1
+ 1LCC010602 K-Basins Security					
10-02-95	09-30-96	251			2114.2
+ 1LCC010701 Excell in Radiological Cntrl					
10-02-95	09-30-96	251			120.6
+ 1LCC010702 Radiological Standards					
10-02-95	09-30-96	251			166.8
+ 1LCC010703 Conduct of Radiologocial Work					
10-02-95	09-30-96	251			236.6
+ 1LCC010704 Radioactive Materials					
10-02-95	09-30-96	251			286.2
+ 1LCC010705 Radiological Health Supt Ops					
10-02-95	09-30-96	251			1703.2
+ 1LCC010706 Training & Qualification					
10-02-95	09-30-96	251			500.1
+ 1LCC010707 Radiological Records					

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FY96

Project Start 10-01-95 | Early Bar | TP02
Project Finish 09-30-96 | Progress Bar
Data Date 10-02-95 | Critical Activity
Plot Date 09-26-95

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Westinghouse Hanford Company
Spent Nuclear Fuel Project
Program Perfromance Baseline Sched.

SPENT NUCLEAR FUEL PROJECT
WBS 1.4.1

FY 1996

Early Start	Early Finish	Original duration	Milestone No.	Milestone Type	Budgeted Cost ($K)
10-02-95	09-30-96	251			524.2
+ 1LCC010801 SNFS Training/ Travel					
10-02-95	09-30-96	251			65.1
+ 1LCC010802 Supt Safety Self Assessments					
10-02-95	09-30-96	251			25.0
+ 1LCC010805 Fire Protection Assessments					
10-02-95	09-30-96	251			1.4
+ 1LCC010806 Operational Safety Assessment					
10-02-95	09-30-96	251			20.9
+ 1LCC010807 Revw K-Basin Safety Basis Doc					
10-02-95	09-30-96	251			18.9
+ 1LCC010808 Other SNFS Support					
10-02-95	09-30-96	251			57.2
+ 1LCC010809 Doc Rev/Apprls (excl Safety B					
10-02-95	09-30-96	251			85.7
+ 1LCC010812 Supt Safety Issue/Concern Res					
10-02-95	09-30-96	251			72.3
+ 1LCC010813 Supt Devl/Imprvmnt..Rslv Comp					
10-02-95	09-30-96	251			95.3
+ 1LCC010814 Job Hazards Analysis					
10-02-95	09-30-96	251			13.4
+ 1LCC010815 Spt S/RIDS Dev Eval Ordr Comp					
10-02-95	09-30-96	251			11.9
+ 1LCC010816 Hnfrd Occup Expos Assessments					
10-02-95	09-30-96	251			13.4
+ 1LCC010901 QA Oversite					
10-02-95	09-30-96	251			234.0
+ 1LCC010902 Quality Control Verifications					
10-02-95	09-30-96	251			97.3
+ 1LCC010903 Engineering Support					
10-02-95	09-30-96	251			78.1
+ 1LCC010904 Procurement Support					
10-02-95	09-30-96	251			60.5
+ 1LCC010906 Work Control Support					
10-02-95	09-30-96	251			133.5

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Project Start 10-01-92 | Early Bar
Project Finish 09-30-11 | Progress Bar
Data Date 10-02-95 | Critical Activity
Plot Date 09-28-95 | TF02

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Westinghouse Hanford Company
Spent Nuclear Fuel Project
Program Perfromance Baseline Sched.

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Early Start	Early Finish	Original duration	Milestone No.	Milestone Type	Budgeted Cost ($K)
+ 1LCC010907 "Procedure Devl, Rev & Aproval"					
10-02-95	09-30-96	251			42.3
+ 1LCC010908 NCR Program Management					
10-02-95	09-30-96	251			8.5
+ 1LCC020101 Preventive Maintenance					
10-02-95	09-30-96	251			755.1
+ 1LCC020102 Corrective Maintenance					
10-02-95	09-30-96	251			508.4
+ 1LCC020103 Equipment Instrument Calibrat					
10-02-95	09-30-96	251			92.0
+ 1LCC020104 Modifications Maintenance					
10-02-95	09-30-96	251			208.1
+ 1LCC020105 Facility Maintenance/ Mgmt					
10-02-95	09-30-96	251			894.5
+ 1LCC020106 Material Control/ Warehousing					
10-02-95	09-30-96	251			744.4
+ 1LCC020107 Maintenance Service Contracts					
10-02-95	09-30-96	251			252.8
+ 1LCC020108 Spare Parts Procedure					
10-02-95	09-30-96	251			0.0
+ 1LCC020201 Integrated Schedule					
10-02-95	09-30-96	251			153.1
+ 1LCC020202 Pm Recall JCS - Schedule					
10-02-95	09-30-96	251			190.5
+ 1LCC020203 Plant Tracking System					
10-02-95	09-30-96	251			303.5
+ 1LCC020204 J-3 System					
10-02-95	09-30-96	251			73.1
+ 1LCC020205 Manage/ Support POD/POW/WCC					
10-02-95	09-30-96	251			387.3
+ 1LCC020206 "WP Validation, Revw, Closeout"					
10-02-95	10-17-96	264			138.0
+ 1LCC020301 Prepare Modifications WPs					
10-02-95	09-30-96	251			1247.6
+ 1LCC020302 Prep Trblshtng/ Repair WPs					

OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP

FY96

Project Start 10-01-92
Project Finish 09-30-11
Data Date 10 02 95
Plot Date 09 26 95

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Westinghouse Hanford Company
Spent Nuclear Fuel Project
Program Perfromance Baseline Sched.

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Early Start	Early Finish	Original duration	Milestone No.	Milestone Type	Budgeted Cost ($K)
10-02-95	10-22-96	267			1657.8
+ 1LCC030101 Policeis & Admin Procedures					
10-02-95	09-30-96	251			90.5
+ 1LCC030102 S/RIDS Database Administratio					
10-02-95	09-30-96	251			71.7
+ 1LCC030103 Technical Procedures					
10-02-95	09-30-96	251			369.5
+ 1LCC030201 Regulatory Compliance					
10-02-95	09-30-96	251			175.6
+ 1LCC030202 Maintain Safety Basis					
10-02-95	09-30-96	251			124.3
+ 1LCC030203 USQ/PRC Process					
10-02-95	09-30-96	251			89.1
+ 1LCC030301 Design Services					
10-02-95	09-30-96	251			336.4
+ 1LCC030302 Maint Plant Config Mgmt Docum					
10-02-95	09-30-96	251			1758.6
+ 1LCC030303 Maintain Plant Drawings					
10-02-95	09-30-96	251			83.1
+ 1LCC030304 Engineering Documentation					
10-02-95	09-30-96	251			102.6
+ 1LCC030305 Engr Doc Release Station					
10-02-95	09-30-96	251			173.2
+ 1LCC030307 Cmplt Dsgn Basis Reconstituti					
10-02-95	10-18-96	265			1275.1
+ 1LCC040101 Training Development & Mgmt					
10-02-95	09-30-96	251			255.7
+ Complete K-Basins TIM Resolution					
	12-29-95	0	S03-96-039	5	
+ 1LCC040201 Operations Qualifications					
10-02-95	09-30-96	251			101.7
+ 1LCC040202 Maintenance Qualifications					
10-02-95	09-30-96	251			159.3
+ 1LCC040203 Engineering Qualifiactions					
10-02-95	09-30-96	251			111.9

FY95: OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP

Project Start	10-01-92
Project Finish	09-30-11
Data Date	10-02-95
Plot Date	09-26-95

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Early Bar
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Spent Nuclear Fuel Project
Program Perfromance Baseline Sched.

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Early Start	Early Finish	Original duration	Milestone No.	Milestone Type	Budgeted Cost ($K)
+ 1LCC050103 Audit Appraisal Presentations					
10-02-95	09-30-96	251			33.2
+ 1LCC050104 K-Basin Tours & Presentations					
10-02-95	09-30-96	251			13.8
+ 1LCC050201 K-Basins Management					
10-02-95	09-30-96	251			384.6
+ 1LCC050202 Self Assessments					
10-02-95	09-30-96	251			86.6
+ 1LCC050301 Corrective Action Mgmt Actvts					
10-02-95	09-30-96	251			55.2
+ 1LCC050303 Commitment Tracking					
10-02-95	09-30-96	251			19.5
+ 1LCC050501 Misc Admin Documentation					
10-02-95	09-30-96	251			119.7
+ 1LCC050502 Human Resources					
10-02-95	09-30-96	251			11.0
+ 1LCC050504 Mypp/Budget Dev & Mgmt					
10-02-95	09-30-96	251			50.7
+ 1LCC050505 Contract Administration					
10-02-95	09-30-96	251			19.9
+ 1LDE010501 Permits					
10-02-95	09-30-96	251			100.4
+ 1LDE010502 Water Test					
12-01-95	02-14-96	52			50.1
+ 1LDE010503 Transformer Test					
10-02-95	11-15-95	33			80.0
+ 1LDE010504 Manuals					
06-03-96	10-01-96	84			38.7
+ 1LDE010505 Operating Procedures					
10-02-95	09-30-96	251			14.9
+ 1LDE010506 Operator Training					
10-02-95	09-30-96	251			5.1
+ 1LDE040101 Project Management					
01-02-96	09-20-96	184			77.3
+ 1LDE040201 Design					

FY96: OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP

Project Start 10-01-92
Project Finish 09-30-11
Data Date 10-02-95
Plot Date 09-26-95
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Early Bar
Progress Bar
Critical Activity

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Westinghouse Hanford Company
Spent Nuclear Fuel Project
Program Perfromance Baseline Sched.

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Early Start	Early Finish	Original duration	Milestone No.	Milestone Type	Budgeted Cost ($K)
01-03-96	02-29-96	41			10.9
+ 1LDE040401 Construction					
03-01-96	06-14-96	75			464.4
+ 1LDE040501 Project Close-Out					
06-17-96	09-20-96	67			5.2
+ 1LDE040601 Mgmt Contingency					
01-02-96	09-20-96	184			67.8
+ 1LDE050101 Cold Test Facility Management					
10-02-95	09-30-96	251			607.1
+ 1LDE070101 Project Management					
10-02-95	06-26-97	439			82.3
+ 1LDE070201 Conceptual Design					
10-02-95	09-27-96	250			97.2
+ 1LDE070301 Definitive Design					
09-30-96	10-25-96	20			1.2
+ 1LDE070701 Management Close-Out					
10-02-95	06-26-97	439			128.3
+ ....Cont Air Monitoring Elec'l Sys. Circuits					
10-02-95	01-30-96	82			39.8
+ 1LDE080202 Power Outlets in 105 KE / KW					
10-02-95	03-28-96	123			39.8
+ 1LDE080203 Portable H2O Monitoring Instrumentati					
10-02-95	05-30-96	168			39.8
+ 1LDE080204 Backflow Preventers					
10-02-95	07-30-96	208			99.0
+ 1LDE080205 Backwash H2O Monitor Instrmentation					
10-02-95	07-30-96	208			39.8
+ 1LDE080206 Roof Repair - 1717 & 4-Trailers					
10-02-95	07-30-96	208			39.8
+ 1LDE080207 Contaminated Waste Compactor					
10-02-95	09-30-96	251			19.3
+ 1LDE080208 Upgrade Rad Analysis Lab					
10-02-95	07-30-96	208			99.0
+ 1LDE080209 Mitigate Lead & Asbestos Hazards					
10-02-95	07-30-96	208			99.0

Project Start 10-01-92 | Early Bar | TP02
Project Finish 09-30-11 | Progress Bar
Data Date 10-02-95 | Critical Activity
Plot Date 09-26-95
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Westinghouse Hanford Company
Spent Nuclear Fuel Project
Program Performance Baseline Sched.

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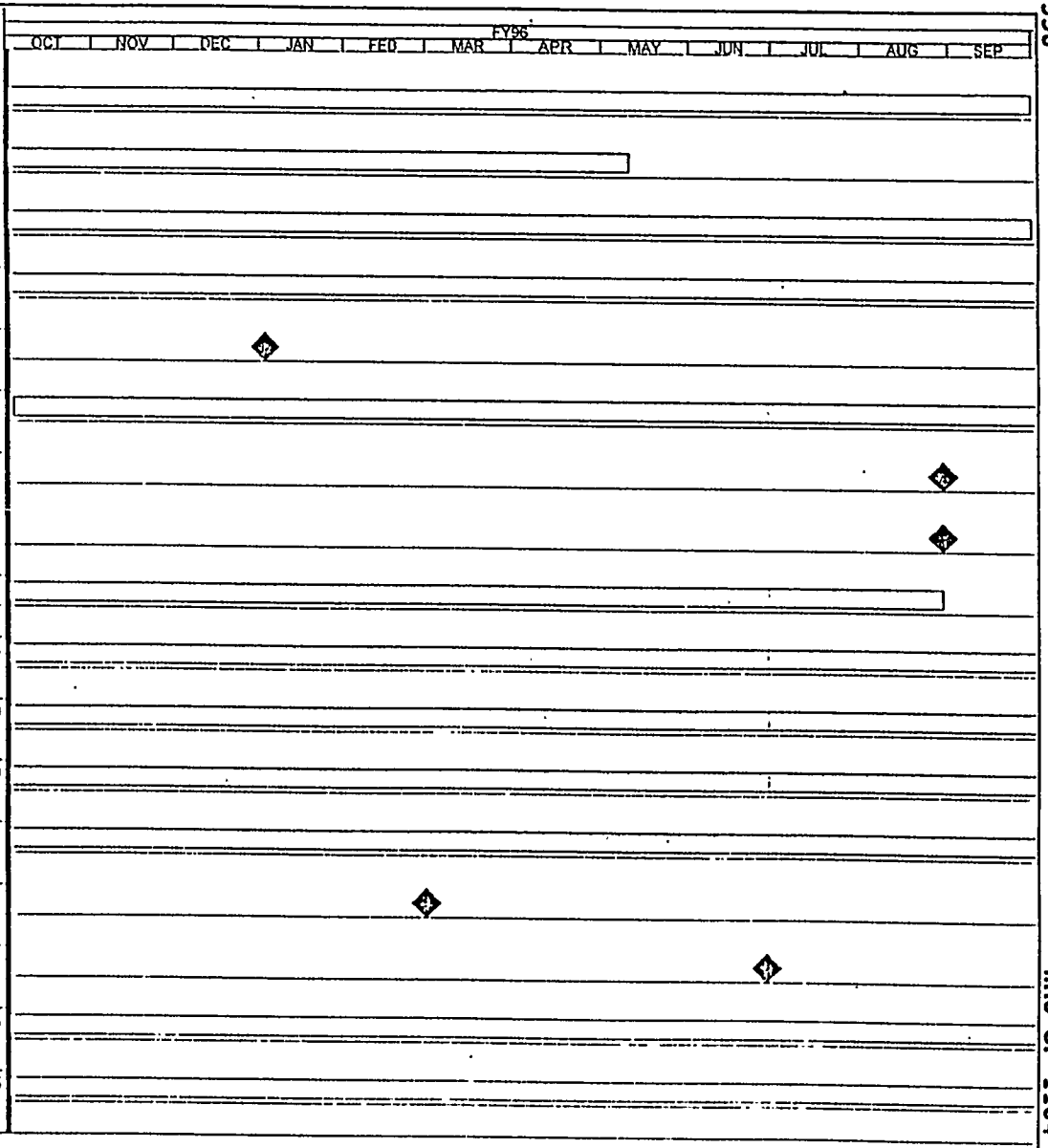
Early Start	Early Finish	Original duration	Milestone No.	Milestone Type	Budgeted Cost ($K)
+ 1LDF010101 Project Management					
10-02-95	09-30-96	251			739.0
+ 1LDF010103 Concrete Wall Dose Reduction					
10-02-95	05-10-96	154			299.4
+ 1LDF010104 Dose & Manapower Management					
10-02-95	09-30-96	251			1333.7
+ 1LDG010101 FRSProject Definition					
10-02-95	02-27-98	607			478.0
+ COMPLETE FUEL REMOVAL SYSTEM STUDIES					
	01-02-96	0	S04-96-315	6	
+ 1LDG010201 FRS Design Fab Install					
10-04-95	02-13-97	342			801.5
+ COMPL SNF REMOVAL PRELIM DESIGN (PBI-96-141)					
	08-29-96	0	S04-96-302	6	
+ M/S-I-Cmplt FRS System Design					
	08-29-96	0	S04-96-303	5	
+ 1LDG010401 FRS Regulatory Compliance					
10-02-95	08-29-96	230			1.7
+ 1LDG010501 FRS Safety Analysis & USQ					
10-02-95	04-28-97	396			843.3
+ 1LDH010101 SRS Project Management					
10-02-95	03-12-98	616			409.0
+ 1LDH010201 SRS Planning & Scheduling Act					
10-02-95	03-12-98	616			78.0
+ 1LDH010202 SRS Sludge Engr Support					
06-01-95A	09-30-11	4,138			430.4
+ M/S-K-Sludge MOU Signd TWRS,WHC SNF Proj, SFD(					
	02-29-96	0	S04-96-107	5	
+ M/S-K Compl Estab KE Floor Sludge Tank Acceptbly					
	06-28-96	0	S04-96-110	5	
+ 1LDH010203 SRS Conduct Devel Testing					
10-02-95	04-30-97	398			221.3
+ 1LDH010501 KE Sludge Storage: Engr					
10-02-95	01-31-97	335			456.5
+ 1LDH010601 Sludge System Regulatory Comp					



Project Start 10-01-92
Project Finish 09-30-11
Data Date 10-02-95
Plot Date 09-26-95
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Early Bar
Progress Bar
Critical Activity

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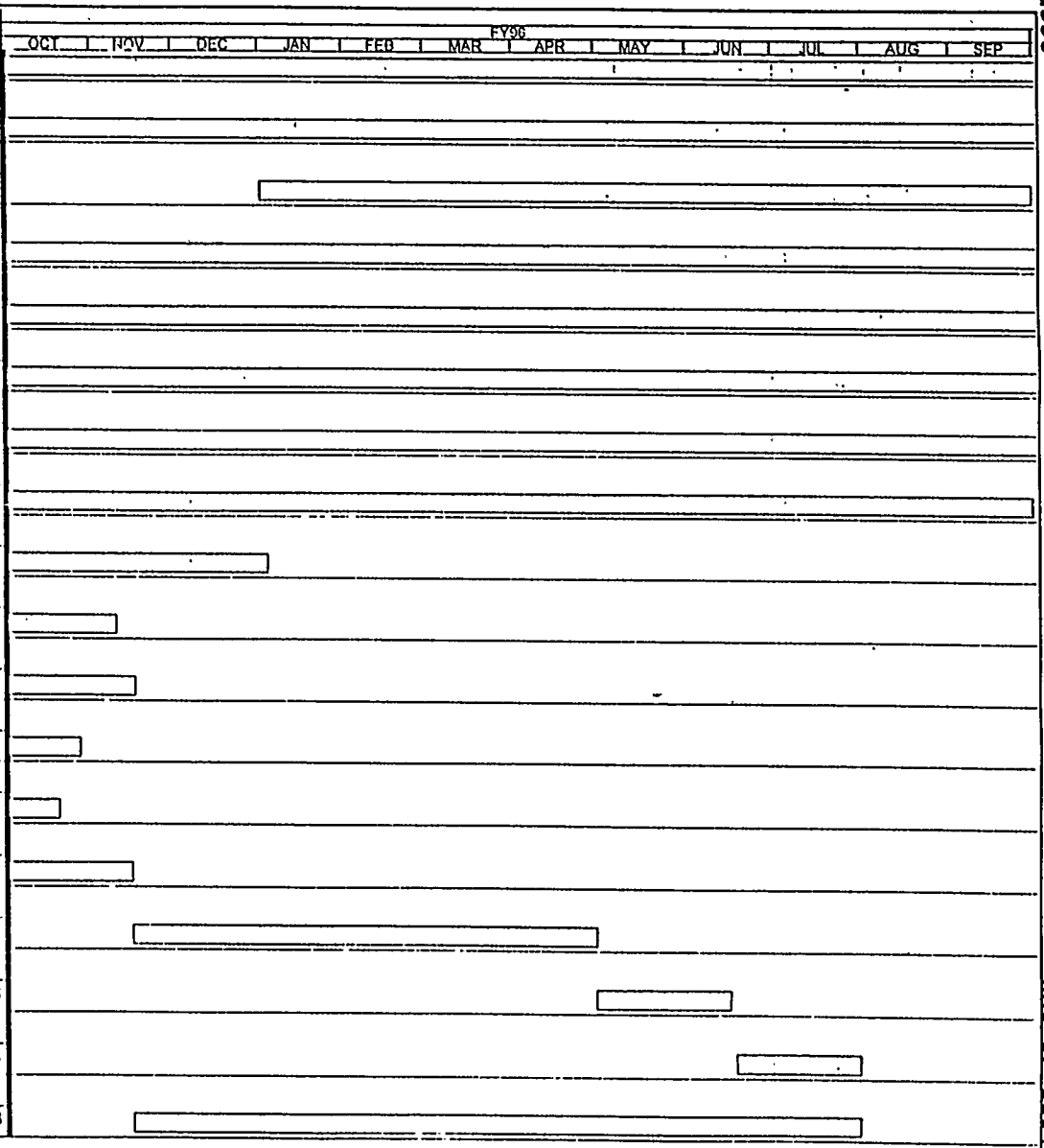
Westinghouse Hanford Company
Spent Nuclear Fuel Project
Program Perfromance Baseline Sched.

Early Start	Early Finish	Original duration	Milestone No.	Milestone Type	Budgeted Cost ($K)
10-02-95	11-28-96	292			253.7
+ 1LDH010701 Safety Assessments					
10-02-95	03-13-98	617			204.3
+ 1LDH010702 KE Sldg Proc & Loadout Design					
01-02-96	09-30-96	190			525.3
+ 1LDH010801 TWRS Offload Engineering					
10-02-95	07-20-98	707			30.9
+ 1LDH010802 TRWS OFFLOAD DESIGN					
10-02-95	09-30-11	4,055			1039.0
+ 1LDH010901 TRANSPORT PACKAGE ENGINEERING					
10-02-95	05-01-97	399			143.5
+ 1LDH010902 TRANSPORT PACKAGE DESIGN					
10-02-95	09-30-11	4,055			149.4
+ 1LDJ010101 Project Mgmt					
10-02-95	09-30-96	251			201.2
+ 1LDJ010201 Eq Design / Procurement					
10-02-95	01-03-96	63			214.1
+ 1LDJ010202 SLP - Construction					
10-02-95	11-09-95	29			86.7
+ 1LDJ010203 SLP - Turn-Over to OPS					
10-02-95	11-16-95	34			108.0
+ 1LDJ010204 Regulatory Requirements					
10-02-95	10-27-95	20			4.4
+ 1LDJ010205 SLP - Safety Requirements					
10-02-95	10-20-95	15			5.5
+ 1LDJ010301 Fuel Prep System Definition					
10-02-95	11-15-95	33			33.7
+ 1LDJ010302 Fuel Prep Equip Dsgn/Procure					
11-16-95	04-30-96	113			296.7
+ 1LDJ010303 Fuel Prep Construction					
05-01-96	06-14-96	32			46.8
+ 1LDJ010304 Fuel Prep Turn-Over to OPS					
06-17-96	07-30-96	30			81.4
+ 1LDJ010305 Fuel Prep Safety Evaluation					
11-16-95	07-30-96	175			25.3



Project Start 10-01-92
Project Finish 09-30-11
Data Date 10-02-95
Plot Date 09-26-95
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Early Bar
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1P02

Westinghouse Hanford Company
Spent Nuclear Fuel Project
Program Perfromance Baseline Sched.

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SPENT NUCLEAR FUEL PROJECT
WBS 1.4.1

FY 1996

WHC-SP-1104

Early Start	Early Finish	Original duration	Milestone No.	Milestone Type	Budgeted Cost ($K)
+ 1LDJ010306 Safety					
11-16-95	07-30-96	175			15.4
+ 1LDJ010401 Sldg Prep System Definition					
10-02-95	11-01-95	23			38.0
+ 1LDJ010402 Sldg Prep Equip Dsgn/Procurem					
11-02-95	02-28-96	79			1001.4
+ 1LDJ010403 Sldg Prep Construction					
02-29-96	03-28-96	21			65.6
+ 1LDJ010404 Sldg Prep Turn-Over to OPS					
03-29-96	04-29-96	22			41.4
+ 1LDJ010405 Sldg Prep Safety Evaluations					
11-02-95	04-29-96	122			39.3
+ 1LDJ010406 Sldg Prep Regulatory Rqmnts					
11-02-95	04-29-96	122			11.0
+ 1LDJ020101 Clean South Load-Out Pit OPS					
12-12-95	03-28-96	75			236.1
+ Start Clean Debris at South Load-Out Pit					
12-12-95		0	S04-96-505	5	
+ M/S-I-Debris Removal South Load-Out Pit Complete					
	03-28-96	0	S04-96-502	5	
+ 1LDJ020201 Fuel Area Processing Prep OPS					
07-31-96	09-30-96	43			149.0
+ 1LDJ020301 Sldg Area Prep OPS					
04-30-96	07-30-96	63			245.5
+ 1LDK010101 WaterRem Project Management					
10-02-95	09-30-96	251			410.6
+ 1LDK010201 Fuel Removal Water Supt F&R					
10-02-95	09-30-96	251			83.2
+ 1LDK010203 Def-Water Trtmnt Engr Studies					
10-02-95	09-30-97	504			25.1
+ 1LDK010301 K-East BWFS					
	03-28-96	0			57.7
+ M/S - 105-KE BWFS Operational					
	11-15-95	0	S04-96-600	5	
+ M/S - 105-KW BWFS Operational					

Project Start 10 01 95
Project Finish 09-30-11
Data Date 10-02-95
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Early Bar
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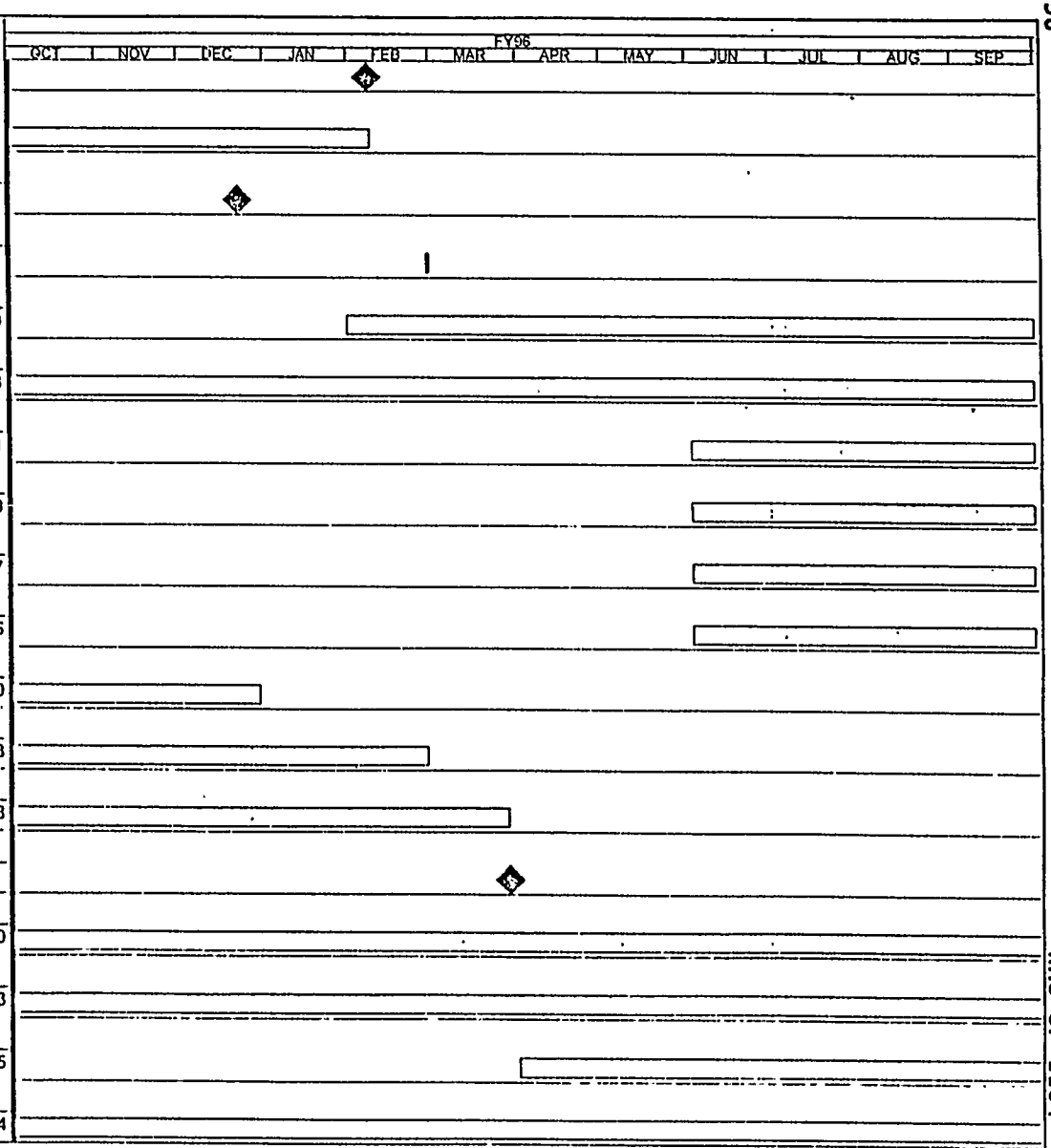
Westinghouse Hanford Company
Spent Nuclear Fuel Project
Program Perfromance Baseline Sched.

Early Start	Early Finish	Original duration	Milestone No.	Milestone Type	Budgeted Cost ($K)
	02-07-96	0	S04-96-601	5	
+ 1LDK010302 K-West BWFS					
10-02-95	02-08-96	89			830.3
+ EPA Approve NOC					
	12-22-95	0	S04-96-609	5	
+ M/S-K WHC Submit SARP to RL					
02-29-96	02-29-96	1	S04-96-608	5	
+ 1LDK010401 Fuel Removal & Support					
02-01-96	09-30-96	168			787.9
+ 1LDK020101 Replace IXM's & Filters FY96					
10-02-95	09-30-96	251			1650.3
+ 1LDL010101 Project Management					
06-03-96	09-30-96	83			22.1
+ 1LDL010201 Begin Develop Strategy					
06-03-96	09-30-96	83			108.9
+ 1LDL010204 Deactivation Planning Input					
06-03-96	09-30-96	83			7.7
+ 1LDL010301 BUM/ BHI Interface					
06-03-96	09-30-96	83			5.5
+ 1LHN010101 CF FSF Feed Document Revision					
10-02-95	12-29-95	60			116.0
+ 1LHN010102 CF Product Criteria					
10-02-95	02-28-96	102			171.3
+ 1LHN010103 CF Process Flow Diagrams					
10-02-95	03-28-96	123			224.8
+ M/S-O SUBMIT FINAL PROCESS FLOW DIAGRAMS					
	03-28-96	0	S08-96-002	5	
+ 1LHN010104 CF Prepare Functions & Rqmnts					
10-02-95	12-27-96	311			124.0
+ 1LHN010201 CF Budget & Planning Support					
10-02-95	06-26-98	692			18.3
+ 1LHN010301 CF Baseline Document Maintena					
04-01-96	08-27-97	357			155.5
+ 1LHN020101 CF Design Rqmnts for Tech Dev					
10-02-95	05-14-97	408			218.4



Project Start 10-01-92
Project Finish 09 30-11
Data Date 10 02-95
Plot Date 09 26 95
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Early Bar
Progress Bar
Critical Activity

TPU2

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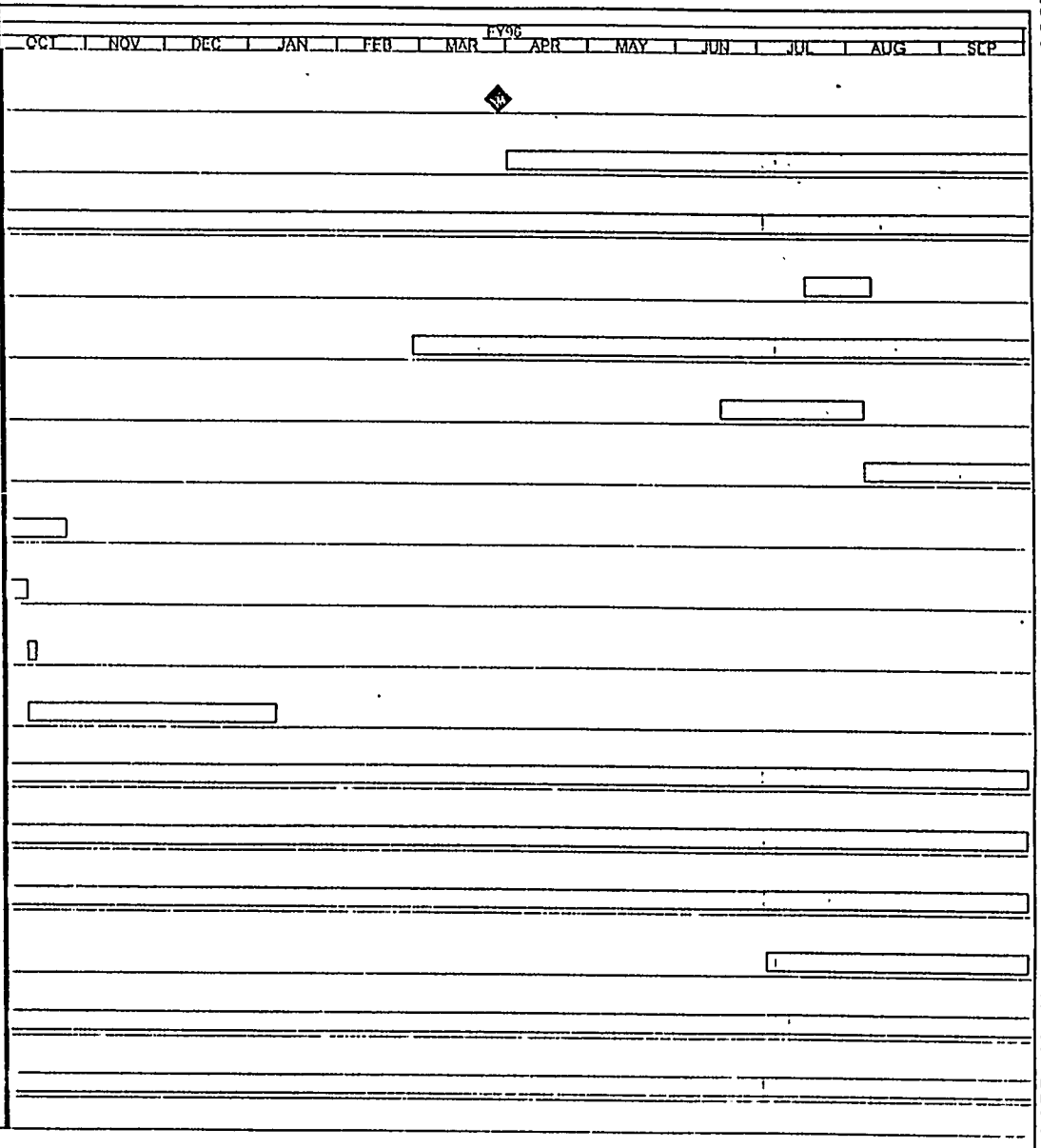
Westinghouse Hanford Company
Spent Nuclear Fuel Project
Program Perfromance Baseline Sched.

Early Start	Early Finish	Original duration	Milestone No.	Milestone Type	Budgeted Cost ($K)
+ M/S-O COMPLETE TECH REQMNTS FOR DESIGN BAS					
	03-28-96	0	S08-96-003	5	
+ 1LHN020102 CF Safety Rgmnts for Tech Dev					
04-01-96	03-30-98	504			58.3
+ 1LHN020201 CF Prep & Conduct Cndtng Test					
10-02-95	01-17-97	325			190.9
+ 1LHN020202 CF Prep Hot Cell Cndtng Test					
07-17-96	08-09-96	18			102.0
+ 1LHN020203 CF Dsgn Fab Cold Test Exp Fix					
02-27-96	11-22-96	190			214.7
+ 1LHN020204 CF Rec & Char Fuel & Sludge					
06-17-96	08-06-96	35			51.0
+ 1LHN020205 CF Cndct Bench Scale Cndtng T					
08-07-96	11-15-96	72			184.8
+ 1LJR010101 Purex/K-Basin Project Support					
10-02-95	10-23-95	16			10.1
+ 1LJR010503 Unload/Store N_Fuel/ SPR_Fuel					
10-02-95	10-09-95	6			20.0
+ 1LJR010601 Decon Containers/RRCars @ KW					
10-10-95	10-12-95	3			12.8
+ 1LJR010701 Proj Closeout/ Lessons Learne					
10-10-95	01-08-96	60			0.0
+ 1LJR020101 Eval BG Fuel Path/Interface					
10-02-95	09-30-96	251			9.8
+ 1LJR030101 Maint Tech Intrfc T-Plnt Fuel					
10-02-95	09-30-96	251			122.7
+ 1LJR040101 Acq/Mnge PNL Lab Fuel					
10-02-95	09-30-96	251			677.0
+ 1LJR040102 Move PNL Lab Fuel to 400 ISA					
07-02-96	09-30-96	62			13.6
+ 1LJR050201 Mng 308 Fuel Move to 200A ISA					
10-02-95	03-30-00	1,137			7.6
+ 1LJR050202 MANAGE 308 FUEL MOVE to 200A ISA					
10-02-95	09-29-00	1,264			108.8
+ ....REVIEW FFTF SOURCE TERM					



Project Start 10-01-92
Project Finish 09-30-11
Data Date 10-02-95
Plot Date 09 26 95

Early Bar
Progress Bar
Critical Activity

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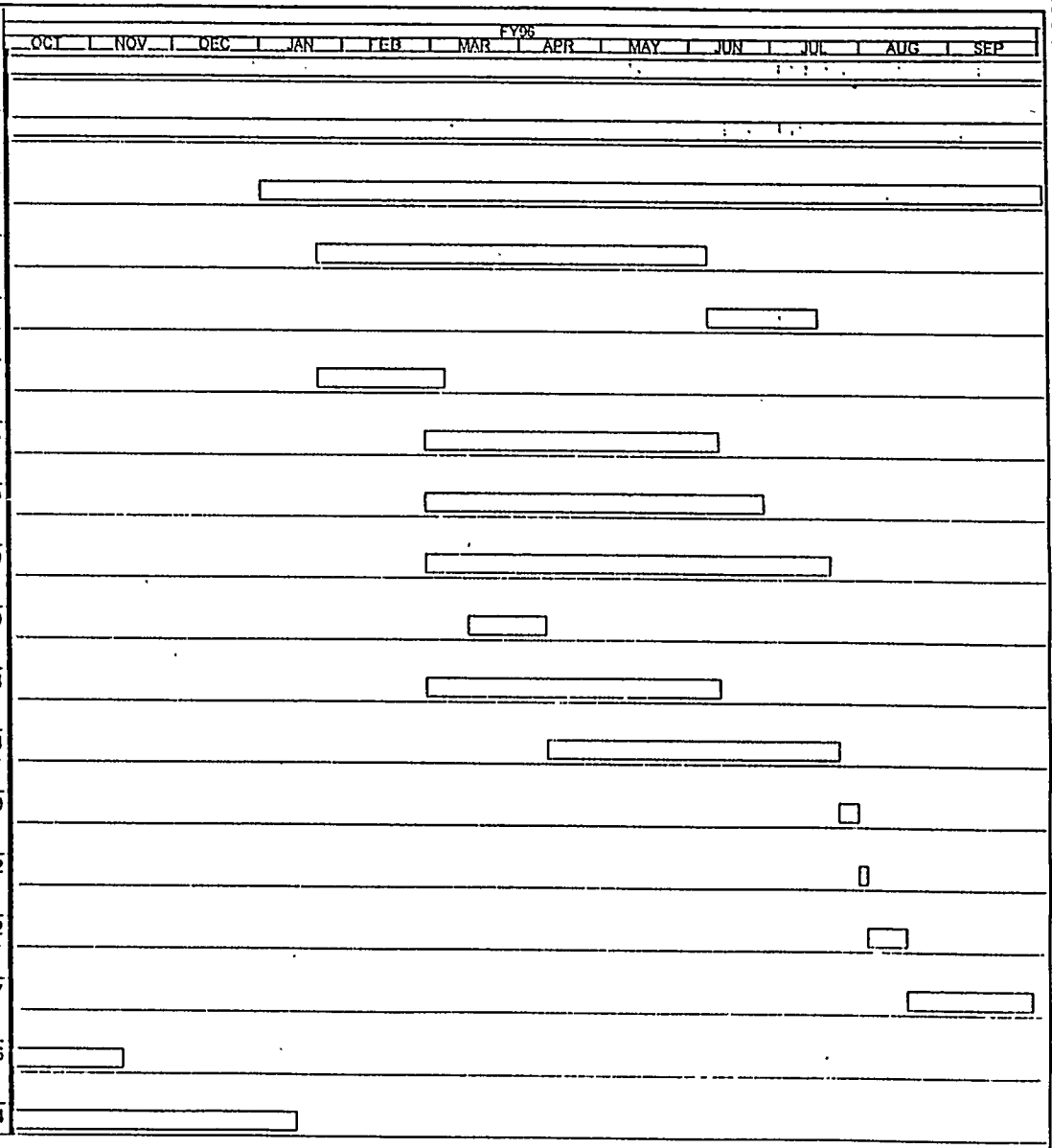
Westinghouse Hanford Company
Spent Nuclear Fuel Project
Program Perfromance Baseline Sched.

Early Start	Early Finish	Original duration	Milestone No.	Milestone Type	Budgeted Cost ($K)
10-02-95	08-08-11	4,017			123.4
+ 1LJR070101 Prepare PFP Fuel Alternatives					
10-02-95	04-08-09	3,425			44.6
+ 1LJR080101 N-Reactor/ K-Basin Project					
01-01-96	10-01-96	192			83.3
+ 1LJR080102 N-Reactor/ K-Basin MOU					
01-22-96	06-06-96	97			3.3
+ 1LJR080106 Conduct Track Inspect/Maint					
06-07-96	07-15-96	25			2.1
+ 1LJR080107 Prepare Qual Assur Plan					
01-22-96	03-04-96	30			1.4
+ 1LJR080108 Prepare Waste Management Plan					
02-27-96	06-10-96	74			1.3
+ 1LJR080202 Prep Review Approve PDC					
02-27-96	06-26-96	86			7.0
+ 1LJR080203 Prep Hazard Class Determinati					
02-27-96	07-19-96	101			2.9
+ 1LJR080301 K-Basin Prep KW-Fuel Hndle Eq					
03-13-96	04-09-96	20			4.0
+ 1LJR080302 Prep Master Work Plans					
02-27-96	06-10-96	74			25.4
+ 1LJR080303 Stage RRCar/ Perform Dry Run					
04-10-96	07-22-96	71			10.4
+ 1LJR080502 Transport RRCars to KW Basin					
07-23-96	07-29-96	5			1.0
+ 1LJR080503 Uunload/Store Fuel at K-Basin					
07-30-96	08-01-96	3			4.2
+ 1LJR080601 Decon Cntrs/RRCar @ KW Basin					
08-02-96	08-15-96	10			6.2
+ 1LJR080701 Proj Closeout Lessons Learned					
08-16-96	09-27-96	30			8.7
+ 1LET010201 MCO Test Procedures					
10-02-95	11-10-95	30			1.6
+ 1LET010202 MCO Mockups/ Modifications					
10-02-95	01-12-96	70			183.4



Project Start 10-01-92
Project Finish 09-30-11
Data Date 10-02-95
Plot Date 09-26-95

Early Bar
Progress Bar
Critical Activity

TP02

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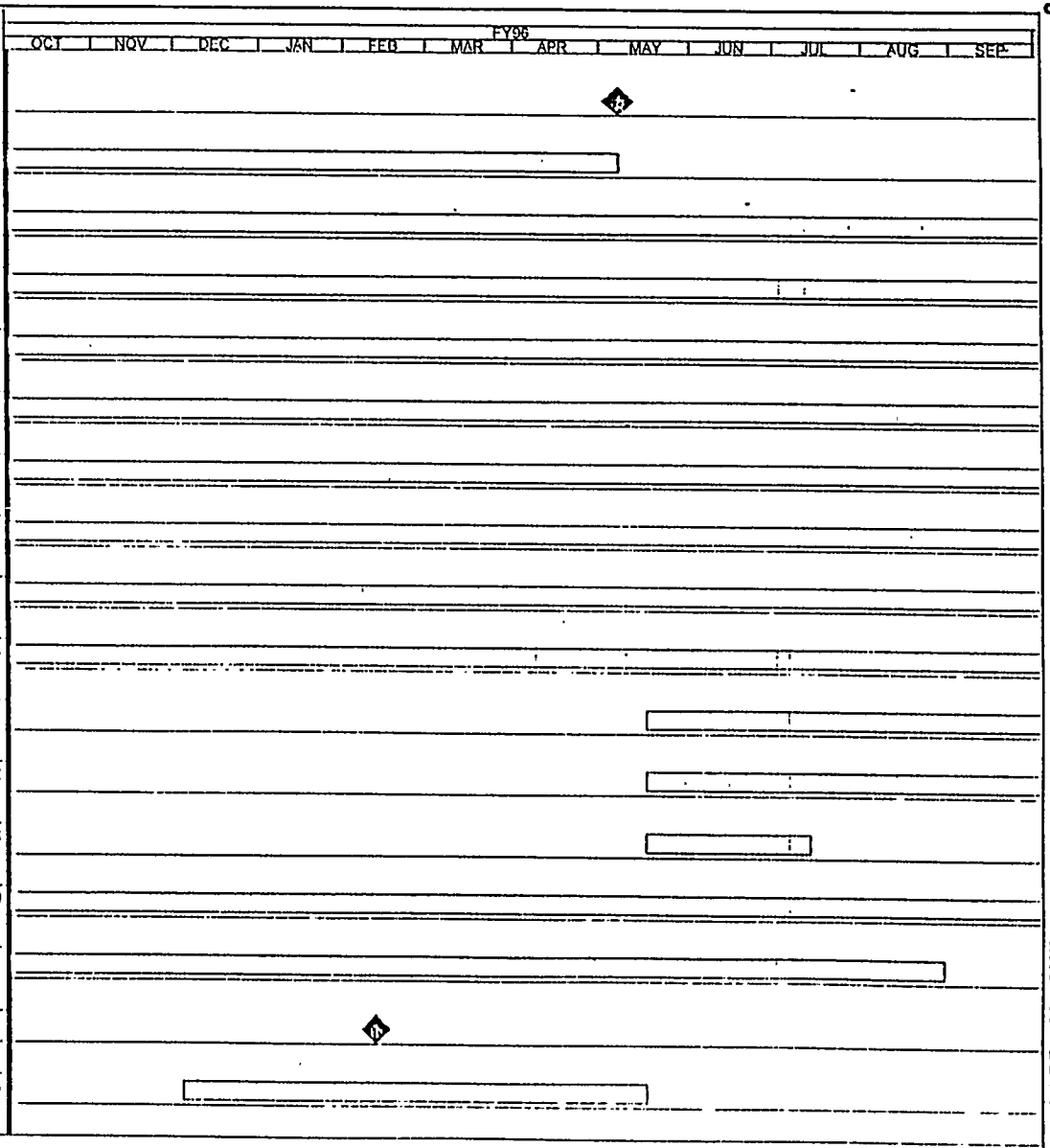
Westinghouse Hanford Company
Spent Nuclear Fuel Project
Program Perfromance Baseline Sched.

Early Start	Early Finish	Original duration	Milestone No.	Milestone Type	Budgeted Cost ($K)
+ M/S-I-Complt MCO Testing					
	05-06-96	0	S05-96-007	5	
+ 1LET010203 MCO Test					
10-02-95	05-06-96	150			209.4
+ 1LET020102 MCO Project Management					
10-02-95	02-25-99	858			254.1
+ 1LET020201 MCO Q.A. Management					
10-02-95	08-06-98	720			58.1
+ 1LET020301 MCO Design Management					
10-02-95	08-06-98	720			97.6
+ 1LET020501 MCO Reg Compliance Mgmt					
10-02-95	08-06-98	720			31.6
+ 1LET020601 MCO Business Management					
10-02-95	08-06-98	720			281.1
+ 1LET020701 MCO Acquisition Management					
10-02-95	08-06-98	720			93.7
+ 1LET020801 MCO Info Resource Management					
10-02-95	08-06-98	720			26.0
+ 1LET020901 MCO Safety Management					
10-02-95	08-06-98	720			57.3
+ 1LET030101 MCO Valve Studies/ Tests					
05-15-96	11-04-96	120			124.7
+ 1LET030102 MCO Draw Tube Studies/ Tests					
05-15-96	11-04-96	120			30.2
+ 1LET030103 MCO Welding Studies/ Tests					
05-15-96	07-12-96	40			256.8
+ 1LET030104 MCO Additional Studies/ Tests					
10-02-95	02-24-97	351			415.0
+ 1LET030201 MCO Prepare Design					
10-02-95	08-28-96	229			257.1
+ M/S -I- Cmplt MCO Phase I Design					
	02-10-96	0	S05-96-006	5	
+ 1LET050101 MCO T/Q Fabrication					
12-04-95	05-14-96	114			160.4
+ 1LET050201 MCO T/Q Test					



Project Start 10-01-92
Project Finish 09 30-11
Data Date 10 02-95
Plot Date 09 26 95

Early Bar
Progress Bar
Critical Activity

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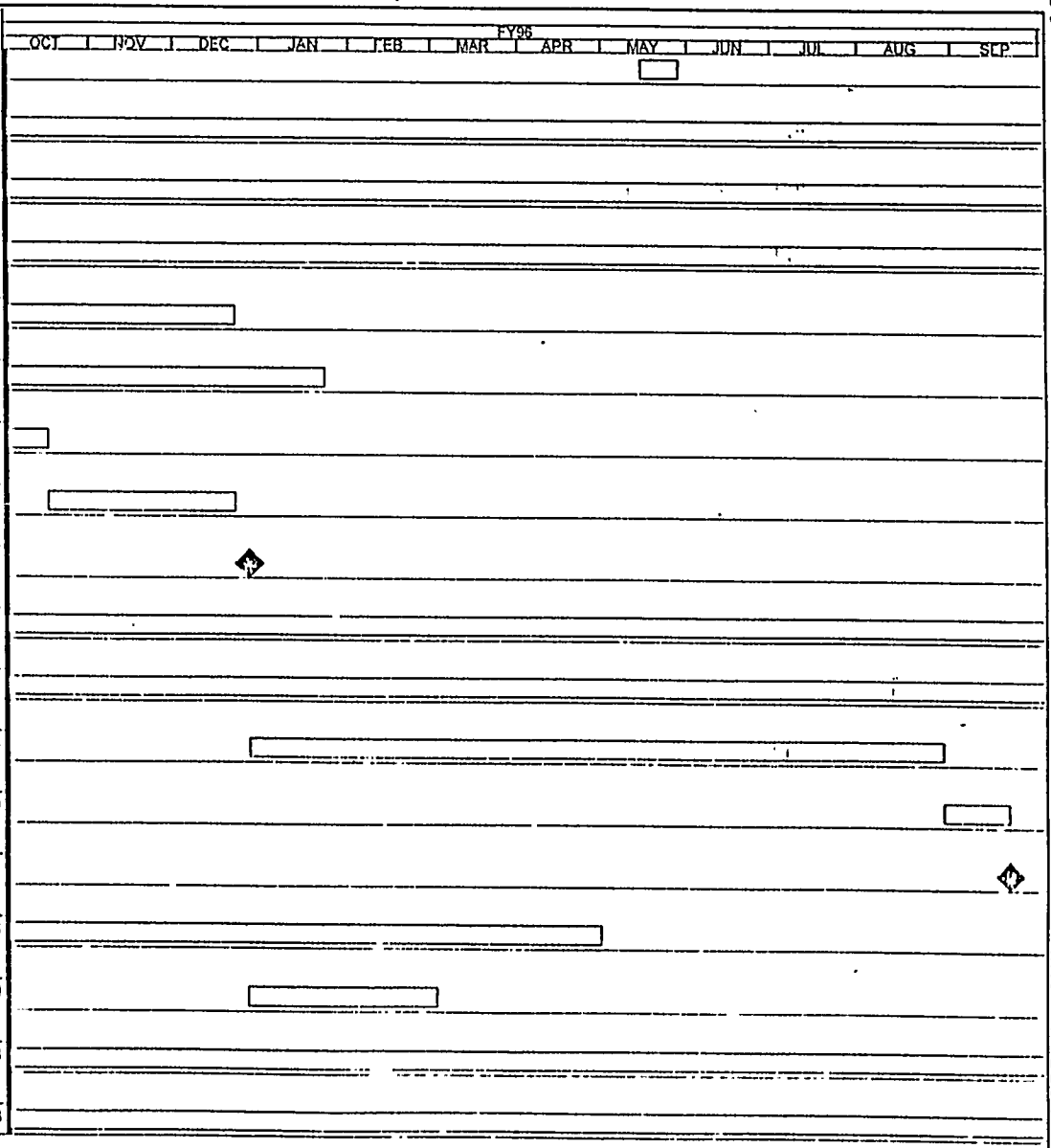
Westinghouse Hanford Company
Spent Nuclear Fuel Project
Program Perfromance Baseline Sched.

Early Start	Early Finish	Original duration	Milestone No.	Milestone Type	Budgeted Cost ($K)
05-15-96	05-28-96	10			4.4
+ 1LET060101 MCO Requirements Definition					
10-02-95	11-07-96	279			75.4
+ 1LET060201 MCO Topical Safety Report					
10-02-95	10-22-96	267			105.8
+ 1LFW010102 C/T ThermalAnalytial Support					
10-02-95	01-01-98	566			29.2
+ 1LFW010201 C/T Update T/M/D					
10-02-95	12-22-95	57			25.5
+ 1LFW010202 C/T 3-D Animation					
10-02-95	01-22-96	76			263.7
+ 1LFW010401 C/T Prep Proposal					
10-02-95	10-16-95	11			23.5
+ 1LFW010402 C/T Bid/ Award					
10-17-95	12-22-95	46			63.7
+ M/S -I- Award Cask/Trns Purchase Order					
	12-27-95	0	S06-96-001	5	
+ 1LFW020501 C/T Regulatory Compliance					
10-02-95	01-01-98	566			41.2
+ 1LFW020801 C/T Info Resource Management					
10-02-95	01-01-98	566			26.5
+ 1LFW050101 C?T Tstg & Qual - Fab Cask					
12-28-95	08-28-96	171			724.3
+ 1LFW050201 C/T Tstg & Qual - Test Cask					
08-29-96	09-19-96	15			81.0
+ M/S -I- Cmplt Cask/Trns Perf. Tstng					
	09-19-96	0	S06-96-010	5	
+ 1LFW070201 C/T Requirements Definition					
10-02-95	04-29-96	145			2.3
+ 1LFW080101 C/T Basin Fac Mods Design					
12-27-95	03-01-96	47			164.9
+ 1LGX020101 CSB QA Administration					
10-02-95	09-29-97	503			22.3
+ 1LGX020301 CSB Phase I Bid & Submittals					
10-02-95	12-29-97	564			111.3



Project Start 10-01-92
Project Finish 09-30-11
Data Date 10 02 95
Plot Date 09 26 95
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Early Bar
Progress Bar
Critical Activity

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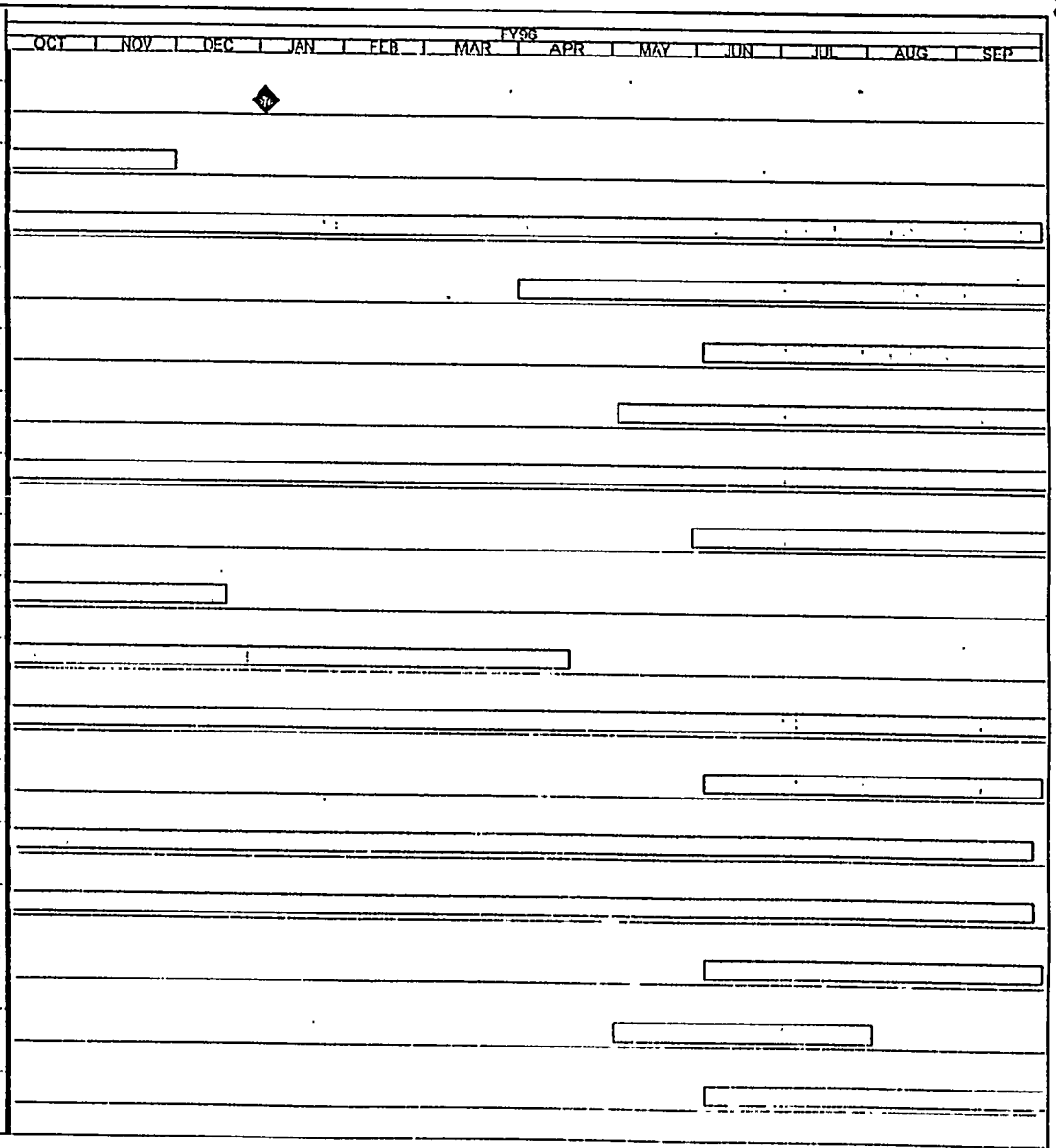
Westinghouse Hanford Company
Spent Nuclear Fuel Project
Program Perfromance Baseline Sched.

Early Start	Early Finish	Original duration	Milestone No.	Milestone Type	Budgeted Cost ($K)
+ Notice to Proceed on Resumption of Construction					
	01-02-96	0	S07-96-025	5	
+ 1LGX030207 CSB Advanced Conceptual Dsgn					
10-02-95	11-30-95	41			154.8
+ 1LGX040101 CSB CONSTRUCTION MANAGEMENT					
10-02-95	09-30-96	251			82.5
+ 1LGX050102 CSB Staffing Administration					
04-01-96	12-01-97	422			10.8
+ 1LGX050103 CSB Training Administration					
06-03-96	01-01-98	398			32.8
+ 1LGX050104 CSB Test Review Board Admin					
05-03-96	01-01-98	418			12.7
+ 1LGX050105 CSB Clerical/ Word Processing					
10-02-95	02-26-97	353			66.9
+ 1LGX050202 CSB Test Commitment List					
05-30-96	04-29-97	230			6.1
+ 1LGX050204 CSB Start Up Admin Procedures					
10-02-95	12-18-95	53			27.3
+ 1LGX050206 CSB Schedule Management					
10-02-95	04-15-96	135			27.3
+ 1LGX050207 CSB Punchlist Management					
10-02-95	12-30-97	565			76.7
+ 1LGX050306 CSB Test Spec Development					
06-03-96	09-30-96	83			54.6
+ 1LGX050401 "CSB Structures, Systems & T/O"					
10-02-95	09-27-96	250			27.3
+ 1LGX050402 CSB Accept Test Witness/Verif					
10-02-95	09-27-96	250			43.3
+ 1LGX050404 CSB Pre Operational Testing					
06-03-96	09-30-96	83			66.0
+ 1LGX050405 CSB Factory Acceptance Test					
05-01-96	08-01-96	64			15.5
+ 1LGX050501 CSB Operational Readiness Rev					
06-03-96	12-30-96	144			13.2
+ 1LGX050702 CSB Ops Support 2					



Project Start 10-01-92
Project Finish 09-30-11
Data Date 10-02-95
Plot Date 09-26-95
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Early Bar
Progress Bar
Critical Activity

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Westinghouse Hanford Company
Spent Nuclear Fuel Project
Program Perfromance Baseline Sched.

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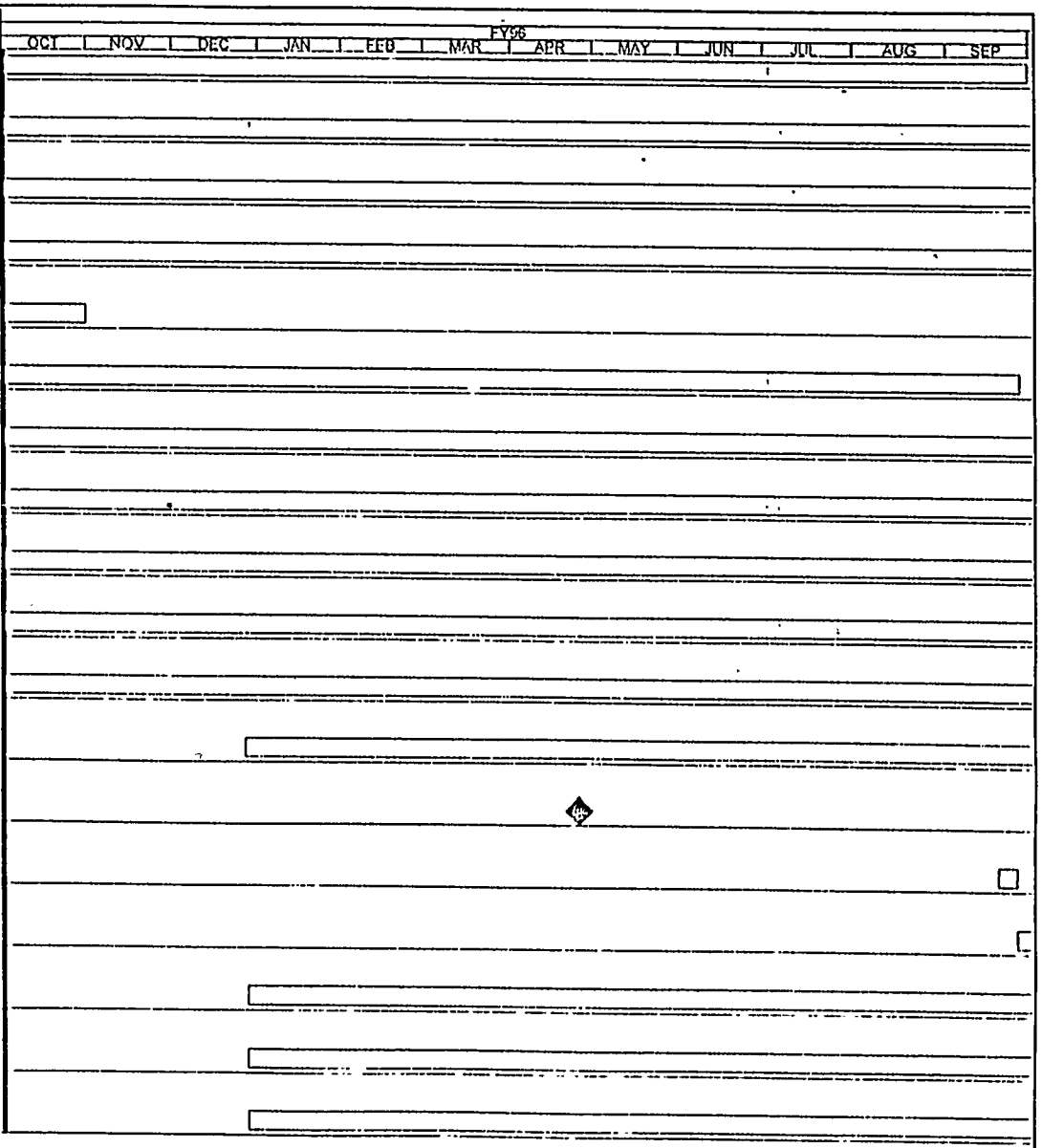
Early Start	Early Finish	Original duration	Milestone No.	Milestone Type	Budgeted Cost ($K)
10-02-95	09-30-96	251			188.5
+ 1LGX060101 CSB Air Permit					
10-02-95	10-20-97	518			110.5
+ 1LGX060102 CSB Other Permits					
10-02-95	12-30-96	312			8.9
+ 1LGX060201 CSB Re-Evaluate PSE					
10-02-95	03-31-98	629			10.4
+ 1LGX060301 CSB Cmplt 1st FHA for the CSB					
10-02-95	10-31-95	22			15.2
+ 1LGX060401 CSB S/RIDS Devlop & Complianc					
10-02-95	09-27-96	250			517.3
+ 2LFW020102 C/T Project Mngmnt					
10-02-95	01-01-98	566			278.0
+ 2LFW020201 C/T QA Mngmnt					
10-02-95	01-01-98	566			68.5
+ 2LFW020301 C/T Design Mngmnt					
10-02-95	01-01-98	566			113.5
+ 2LFW020601 C/T Business Mngmnt					
10-02-95	01-01-98	566			306.3
+ 2LFW020701 C/T Acquisition Mngmnt					
10-02-95	01-01-98	566			161.3
+ 2LFW030201 C/T Dev Cask Prelim Design					
12-27-95	01-07-97	260			1231.7
+ M/S-I-Cmplt Cask Prelim Design					
	04-25-96	0	S06-96-005	5	
+ 2LFW030202 C/T Review Test Results					
09-20-96	09-26-96	5			33.1
+ 2LFW030203 C/T Final Design					
09-27-96	01-15-97	74			20.8
+ 2LFW030301 Develop Transfer Design					
12-28-95	01-23-97	271			1301.9
+ 2LFW030401 Transfer Design Support					
12-28-95	01-07-97	259			1877.0
+ 2FLW070102 C/T SARP					
12-28-95	12-30-96	254			351.8



Project Start 10-01-92
Project Finish 09-30-11
Data Date 10-02-95
Plot Date 09-26-95
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Early Bar
Progress Bar
Critical Activity

TP02

Westinghouse Hanford Company
Spent Nuclear Fuel Project
Program Perfromance Baseline Sched.

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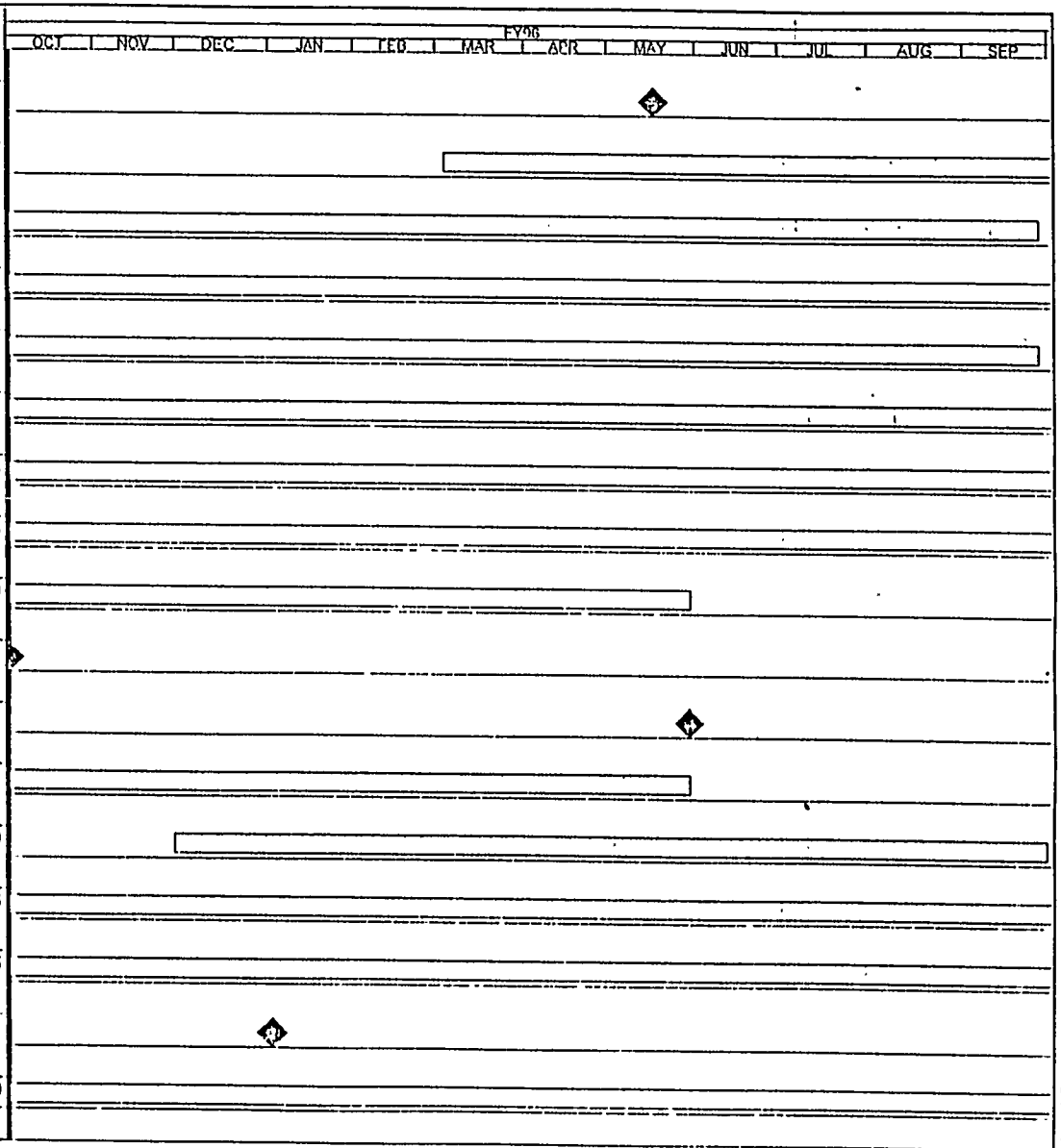
Early Start	Early Finish	Original duration	Milestone No.	Milestone Type	Budgeted Cost ($K)
+ M/S-I-Develop C/T Draft Sarp					
	05-16-96	0	S06-96-007	5	
+ 2LFW080102 C/T Basin Mod Design					
03-04-96	10-07-96	152			161.2
+ 3LHN030101 CF Procure Design Construct					
10-02-95	09-27-96	250			3100.7
+ 3LGX020101 CSB QA Administration- Capital					
10-02-95	09-29-97	503			0.0
+ 3LGX020201 CSB QA Dsgn Etc Administratio					
10-02-95	09-27-96	250			428.4
+ 3LGX020301 CSB Business Administration- Capital					
10-02-95	12-29-97	564			927.1
+ 3LGX020501 CSB Acquisition Administration					
10-02-95	12-29-97	564			55.8
+ 3LGX020601 CSB Information Resource Admin					
10-02-95	12-29-97	564			171.5
+ 3LGX030301 CSB Design Input & Reviews					
10-02-95	05-29-96	167			250.9
+ M/S-O CSB Mile- Start Definitive Design					
10-02-95		0	S07-96-010	5	
+ CSB Mile- Complete Definitive Design					
	05-29-96	0	S07-96-011	5	
+ 3LGX030304 CSB Definitive Design					
10-02-95	05-29-96	167			10319.1
+ 3LGX030305 CSB Definitive Design Modifications					
12-01-95	09-30-96	210			499.0
+ 3LGX040101 CSB CM Office Contract					
10-02-95	12-30-97	565			1168.6
+ 3LGX040201 CSB Equipment Procurement					
10-02-95	08-08-97	468			9035.5
+ M/S-O CSB Mile- Start of GEF Procurement					
01-02-96		0	S07-96-015	5	
+ 3LGX040301 CSB CM QA					
10-02-95	11-28-97	545			101.0
+ 3LGX040302 CSB Procurement QA					



Project Start 10-01-92
Project Finish 09-30-11
Data Date 10-02-95
Plot Date 09-26-95
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Westinghouse Hanford Company
Spent Nuclear Fuel Project
Program Perfromance Baseline Sched.

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TAB X

Early Start	Early Finish	Original duration	Milestone No.	Milestone Type	Budgeted Cost ($K)
10-02-95	08-08-97	468			65.1
+ 3LGX040401 CSB Title III Design					
01-02-96	10-31-97	466			839.4
+ 3LGX040402 CSB Title III Inspection					
01-02-96	09-30-97	443			650.9
+ 3LGX040501 CSB Construction					
01-01-96	01-25-96	19			999.9
+ 3LGX040502 CSB Fixed Price Contractor					
01-02-96	11-28-97	484			12495.0
+ 3LGX040504 CSB Utility Tie-ins					
10-02-95	03-21-96	118			153.7
+ 3LGX060202 CSB Prep REv Approve SAR					
10-02-95	11-07-96	279			538.3
+ 3LGX060203 CSB Review & Approve One Step CSB SA					
02-01-96	11-21-97	459			44.7
+ 7LDE010101 "DD-Elec, Water, Maint, FP"					
10-02-95	03-28-96	123			2046.9
+ 7LDE010102 "E/I-Elec, Water, Maint, FP"					
10-03-95	10-01-96	251			371.2
+ 7LDE010201 Procure Transformenrs					
11-01-95	01-30-96	60			49.7
+ 7LDE010202 Procure Packaged Water Plant					
03-29-96	08-29-96	107			79.1
+ 7LDE010301 Elec Construction					
03-04-96	10-01-96	148			1169.0
+ 7LDE010302 Water Supply Construction					
04-01-96	09-30-96	127			1320.2
+ 7LDE010303 Fire Protection Construction					
10-02-95	09-30-96	251			1699.4
+ 7LDE010304 MF Construction					
06-03-96	10-01-96	84			138.3
+ 7LDE010401 Project Integration					
10-02-95	09-30-96	251			652.4

OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP

FY96

Project Start 10 01 95 | Early Bar | TP02
Project Finish 09 30 96 | Progress Bar
Data Date 10 02 95 | Critical Activity
Plot Date 09 26 96

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Westinghouse Hanford Company
Spent Nuclear Fuel Project
Program Perfromance Baseline Sched.


TAB
X

4.3 COST BASELINE BY MONTH

TABLE 4.3.1
TABLE 4.3.2
TABLE 4.3.3
TABLE 4.3.4

COST BASELINE SUMMARY
CONSISTING OF 6 PAGES

TABLE 4.3.1

4.3.1 COST BASELINE SUMMARY/COST ACCOUNT - OPERATING EXPENSE

($ in 000's)

RL WBS	COST ACCT	ADS/WBS TITLE	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1.4.1.01.01.01	1LAA01	Planning and Schedule Integration	104	90	90	109	92	86	101	101	92	97	101	92	1,165
1.4.1.01.01.02	1LAA02	Management Controls	448	387	390	477	411	431	457	459	418	439	460	396	5,173
1.4.1.01.01.03	1LAA03	Management Administration	59	51	51	62	54	57	59	59	54	57	59	54	676
1.4.1.01.01.04	1LAA04	QA/ES&H	24	20	20	25	22	23	24	24	21	22	24	22	271
1.4.1.01.01.05	1LAA05	Regulatory Programs	97	84	84	101	89	93	97	97	88	93	97	88	1,108
1.4.1.01.01.06	1LAA06	Environmental Compliance & Permitting	15	13	13	16	14	15	15	15	14	15	16	14	175
1.4.1.01.01.07	1LAA07	National Programs	10	9	9	11	9	10	10	11	10	10	10	9	118
1.4.1.01.01.08	1LAA08	Regulatory Integration	25	21	22	25	22	23	24	24	22	23	24	22	277
1.4.1.01.01.09	1LAA09	Public Involvement	26	22	22	27	23	24	26	26	23	24	26	23	292
Sub-Total LA Project Integration			808	697	701	853	736	772	813	816	742	780	817	720	9,255
1.4.1.02.01.01	1LBB01	System Engineering	182	157	158	191	166	174	182	182	166	174	182	166	2,080
1.4.1.02.01.02	1LBB02	Process Engineering	148	128	128	138	119	125	131	131	119	125	129	77	1,496
1.4.1.02.01.03	1LBB03	Technology Acquisition	192	166	166	183	158	166	245	245	222	100	56	51	1,950
1.4.1.02.01.04	1LBB04	Characterization	802	719	683	639	499	455	703	678	596	861	940	852	8,427
1.4.1.02.01.06	1LBB06	Environmental Impact Statement	29	25	24										78
1.4.1.02.01.07	1LBB07	Technical Program Integration	101	87	88	106	92	97	101	101	92	96	101	92	1,154
Sub-Total LB System Integration			1,454	1,282	1,245	1,257	1,034	1,017	1,362	1,337	1,195	1,356	1,408	1,238	15,185
1.4.1.03.01.01	1LCC01	Operate K Basins	1,392	1,202	1,202	1,455	1,264	1,328	1,391	1,391	1,265	1,328	1,391	1,265	15,874
1.4.1.03.01.02	1LCC02	Maintain K Basin	666	576	576	697	606	636	667	667	606	636	667	606	7,606
1.4.1.03.01.03	1LCC03	Provide/Maintain K Basin Baseline Documentation	522	451	451	545	475	498	296	296	269	282	296	269	4,650
1.4.1.03.01.04	1LCC04	K Basin Staff Training	55	47	48	58	50	53	55	55	50	53	55	50	629
1.4.1.03.01.05	1LCC05	K Basin Management	70	60	59	73	64	67	69	69	63	67	70	63	794
Sub-Total LC K Basin Maintenance & Operations			2,705	2,336	2,336	2,828	2,459	2,582	2,478	2,478	2,253	2,366	2,479	2,253	29,553

TABLE 4.3.1

4.3.1 COST BASELINE SUMMARY/COST ACCOUNT - OPERATING EXPENSE

($ in 000's)

RL WBS	COST ACCT	ADS/WBS TITLE	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1.4.1.04.01.01	1LDE01	Essential Systems	64	36	27	33	19	10	10	11	19	20	21	19	289
1.4.1.04.01.01	7LDE01	Essential Systems	640	568	569	687	467	413	698	698	675	709	742	660	7,526
1.4.1.04.01.03	1LDE03	Roof Repairs	26												26
1.4.1.04.01.04	1LDE04	Trailer Moves				17	22	15	35	337	133	15	16	10	600
1.4.1.04.01.05	1LDE05	Cold Test Facility	53	46	46	56	48	51	53	53	48	51	53	49	607
1.4.1.04.01.07	1LDE07	Basin Personnel Facility Upgrades	29	25	25	28	24	25	26	26	24	25	27	25	309
1.4.1.04.01.08	1LDE08	Basin Facility Support Upgrades	64	56	56	67	49	51	47	47	38	38	1	1	515
1.4.1.04.02.01	1LDF01	Dose Reduction System	182	199	203	246	214	225	236	182	165	173	182	165	2,372
1.4.1.04.03.01	1LDG01	FRS Project Definition	41	37	37	44	39	41	42	42	39	38	40	36	476
1.4.1.04.03.02	1LDG02	FRS Project Management				1			1						2
1.4.1.04.03.03	1LDG03	FRS Design	4	7	7	8	7	7	8	8	7	7	37		107
1.4.1.04.03.04	1LDG04	FRS Proc/Fab/Construction									2	4	260	429	695
1.4.1.04.03.07	1LDG07	FRS Regulatory Compliance	74	64	64	77	67	71	74	74	67	72	74	67	845
1.4.1.04.04.01	1LDH01	Sludge Removal System	217	187	187	344	301	316	331	332	301	474	498	453	3,941
1.4.1.04.05.01	1LDJ01	Debris Removal System	396	356	330	403	325	150	129	55	62	76	18	16	2,316
1.4.1.04.05.02	1LDJ02	Debris Removal Operations		22	60	72	63	19	4	86	78	82	76	69	631
1.4.1.04.06.01	1LDK01	Water Treatment System	338	257	156	301	144	140	150	149	136	142	149	133	2,195
1.4.1.04.06.02	1LDK02	Water Treatment Operations	145	124	124	151	132	138	145	145	132	138	145	131	1,650
1.4.1.04.07.01	1LDL01	Deactivation Preparation									35	36	38	35	144
Sub-Total LD K Basin Material Removal/Clean-Up			2,273	1,984	1,891	2,535	1,921	1,672	1,989	2,245	1,961	2,100	2,377	2,298	25,246
1.4.1.05.01.01	1LET01	MCO Acquisition Definition	37	46	14	150	44	46	48	9					394
1.4.1.05.01.02	1LET02	MCO Project Management	79	68	68	82	72	75	79	79	72	75	79	72	900
1.4.1.05.01.03	1LET03	MCO Design	66	78	37	43	37	39	41	157	230	159	111	88	1,086
1.4.1.05.01.05	1LET05	Testing/Qualification MCOs			26	32	28	29	31	18					164
1.4.1.05.01.06	1LET06	MCO Topical Safety Report	13	12	13	18	16	18	18	16	14	13	13	16	180
Sub-Total LE MCO Acquisition			195	204	158	325	197	207	217	279	316	247	203	176	2,724

TABLE 4.3.1

4.3.1 COST BASELINE SUMMARY/COST ACCOUNT - OPERATING EXPENSE

($ In 000's)

RL WBS	COST ACCT	ADS/WBS TITLE	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1.4.1.06.01.01	1LFW01	Cask/Transportation Acquisition Definition	151	113	82	56	1	1	1	1					406
1.4.1.06.01.02	1LFW02	Cask/Transportation Project Management	6	5	5	6	5	6	6	6	5	6	6	6	68
1.4.1.06.01.05	1LFW05	Testing and Qualification of Cask			10	115	87	51	75	111	100	105	78	73	805
1.4.1.06.01.07	1LFW07	Cask/Transportation Regulatory Compliance	1				1								2
1.4.1.06.01.08	1LFW08	Basin Facility Upgrades for Transport			10	81	70	4							165
Sub-Total LF Cask/Transportation			158	118	107	258	164	62	82	118	105	111	84	79	1,446
1.4.1.07.01.02	1LGX02	CSB Project Management	12	10	10	12	11	11	12	12	11	11	12	10	134
1.4.1.07.01.03	1LGX03	CSB Design	83	72											155
1.4.1.07.01.04	1LGX04	CSB Construction	7	6	6	8	6	7	7	7	7	7	7	7	82
1.4.1.07.01.05	1LGX05	CSB Startup and ORR/Initial Operations	51	45	41	41	36	38	39	45	82	87	86	78	669
1.4.1.07.01.06	1LGX06	CSB Regulatory Compliance	72	49	49	60	52	54	57	57	52	54	57	49	662
Sub-Total LG Canister Storage Building			225	182	106	121	105	110	115	121	152	159	162	144	1,702
1.4.1.08.01.01	1LHN01	Conditioning Facility Acquisition Definition	132	114	114	94	80	49	40	39	36	37	39	36	810
1.4.1.08.01.02	1LHN02	Process and Technology Development	41	36	36	43	42	68	72	72	80	162	205	163	1,020
Sub-Total LH Conditioning Facility			173	150	150	137	122	117	112	111	116	199	244	199	1,830
1.4.1.09.01.01	1LJR01	PUREX Fuel Transfer	43												43
1.4.1.09.01.02	1LJR02	Burial Grounds		1	1	1	1	1	1	1	1	1	1		10
1.4.1.09.01.03	1LJR03	T-Plant	11	9	9	11	10	10	11	11	10	10	11	10	123
1.4.1.09.01.04	1LJR04	PNL Labs, Buildings 324, 325, 327	76	66	66	79	69	72	75	75	69	16	14	13	690
1.4.1.09.01.05	1LJR05	308 Annex	10	9	9	11	9	10	11	10	9	10	10	9	117
1.4.1.09.01.06	1LJR06	FFTF	11	9	9	11	9	11	11	11	10	10	11	10	123
1.4.1.09.01.07	1LJR07	PFP	4	3	3	4	4	4	4	4	3	4	4	4	45
1.4.1.09.01.08	1LJR08	N-Reactor Fuel Transfer				12	13	20	29	19	20	14	20	14	161
Sub-Total LJ Other Hanford Fuel			155	97	97	129	115	128	142	131	122	65	71	60	1,312
Total Spent Nuclear Fuel Project			8,148	7,050	6,791	8,443	6,853	6,667	7,310	7,636	6,882	7,383	7,845	7,167	88,253

TABLE 4.3.2

4.3.2 COST BASELINE SUMMARY/COST ACCOUNT - CAPITAL EQUIPMENT

($ in 000's)

RL WBS	COST ACCT	ADS/WBS TITLE	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1.4.1.06.01.02	2LFW02	Cask/Transportation Project Management	81	70	70	85	74	78	81	81	74	78	82	74	928
1.4.1.06.01.03	2LFW03	Cask & Transportation System Design			74	847	736	773	733	254	231	242	254	320	4,464
1.4.1.06.01.07	2LFW07	Cask/Transportation Regulatory Compliance			7	80	70	73	77	43				2	352
1.4.1.06.01.08	2LFW08	Basin Facility Upgrades for Transport						22	24	24	22	23	24	22	161
Total Capital Equipment			81	70	151	1,012	880	946	915	402	327	343	360	418	6,905

TABLE 4.3.3

4.3.3 COST BASELINE SUMMARY/COST ACCOUNT - GENERAL PLANT PROJECTS

($ in 000's)

RL WBS	COST ACCT	ADS/WBS TITLE	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL

Currently there are no General Plant Projects identified in the schedule baseline.

TABLE 4.3.4

4.3.4 COST BASELINE SUMMARY/COST ACCOUNT - LINE ITEM

($ in 000's)

RL WBS	COST ACCT	ADS/WBS TITLE	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1.4.1.07.01.02	3LGX02	CSB Project Management	139	120	120	145	126	133	139	139	126	132	139	125	1,583
1.4.1.07.01.03	3LGX03	CSB Design	1,392	1,202	1,202	1,456	1,266	1,329	1,392	1,335	119	125	131	119	11,068
1.4.1.07.01.04	3LGX04	CSB Construction	909	785	785	2,305	2,449	2,571	2,694	2,694	2,449	2,572	2,694	2,603	25,510
1.4.1.07.01.06	3LGX06	CSB Regulatory Compliance	47	41	41	49	43	45	47	47	53	57	59	54	583
Sub-Total LG Canister Storage Building			2,487	2,148	2,148	3,955	3,884	4,078	4,272	4,215	2,747	2,886	3,023	2,901	38,744
1.4.1.08.01.03	3LHN03	Conditioning Facility Project Management	273	236	236	285	248	261	273	273	248	260	273	235	3,101
Sub-Total LH Conditioning Facility			273	236	236	285	248	261	273	273	248	260	273	235	3,101
Total Line Item			2,760	2,384	2,384	4,240	4,132	4,339	4,545	4,488	2,995	3,146	3,296	3,136	41,845

4.4 PROGRAM FUNDING REQUIRED

TABLE 4.4
TABLE 4.4.1
TABLE 4.4.2

PROJECT FUNDING SUMMARY
CONSISTING OF 5 PAGES

TABLE 4.4

4.4 PROGRAM FUNDING SUMMARY

($ in 000's)

This illustrates when General Plant Projects and Line Items will receive Project Authorization for FY 1996 funds.

RL WBS	WBS TITLE	ADS NUMBER	FUND TYPE	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
			OE	8,146	7,050	6,791	8,443	6,853	6,667	7,310	7,636	6,962	7,383	7,845	7,167	88,253
			CE	81	70	151	1,012	880	946	915	402	327	343	360	418	5,905
			GPP	0	0	0	0	0	0	0	0	0	0	0	0	0
			LI	2,760	2,384	2,384	4,240	4,132	4,339	4,545	4,488	2,995	3,146	3,296	3,136	41,845
TOTAL PROGRAM				$10,987	$9,504	$9,326	$13,695	$11,865	$11,952	$12,770	$12,526	$10,284	$10,872	$11,501	$10,721	$136,003

TABLE 4.4.1

4.4.1 PROGRAM ELEMENT FUNDING

($ in 000's) This illustrates when General Plant Projects and Line Items will receive Project Authorization for FY 1996 funds.

RL WBS	WBS TITLE	ADS NUMBER	FUND TYPE	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1.4.1.01	Project Integration	4110-0	OE	808	697	701	853	736	772	813	816	742	780	817	720	9,255
			CE													0
			GPP													0
			LI													0
				808	697	701	853	736	772	813	816	742	780	817	720	9,255
1.4.1.02	System Integration	4110-0	OE	1,454	1,282	1,245	1,257	1,034	1,017	1,362	1,337	1,195	1,356	1,408	1,238	15,185
			CE													0
			GPP													0
			LI													0
				1,454	1,282	1,245	1,257	1,034	1,017	1,362	1,337	1,195	1,356	1,408	1,238	15,185
1.4.1.03	K-Basin Maintenance & Operations	4110-0	OE	2,705	2,336	2,336	2,828	2,459	2,582	2,478	2,478	2,253	2,366	2,479	2,253	29,553
			CE													0
			GPP													0
			LI													0
				2,705	2,336	2,336	2,828	2,459	2,582	2,478	2,478	2,253	2,366	2,479	2,253	29,553

TABLE 4.4.1

4.4.1 PROGRAM ELEMENT FUNDING

($ in 000's) This illustrates when General Plant Projects and Line Items will receive Project Authorization for FY 1996 funds.

RL WBS	WBS TITLE	ADS NUMBER	FUND TYPE	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1.4.1.04	K-Basin Material Removal/ Clean-Up & Deactivation	4110-0	OE	2,273	1,984	1,891	2,535	1,921	1,672	1,989	2,245	1,961	2,100	2,377	2,298	25,246
			CE													0
			GPP													0
			LI													0
				2,273	1,984	1,891	2,535	1,921	1,672	1,989	2,245	1,961	2,100	2,377	2,298	25,246
1.4.1.05	MCO Acquisition	4110-0	OE	195	204	158	325	197	207	217	279	316	247	203	176	2,724
			CE													0
			GPP													0
			LI													0
				195	204	158	325	197	207	217	279	316	247	203	176	2,724
1.4.1.06	Cask/Transportation System	4110-0	OE	158	118	107	258	164	62	82	118	105	111	84	79	1,446
			CE	81	70	151	1,012	880	946	915	402	327	343	360	418	5,905
			GPP													0
			LI													0
				239	188	258	1,270	1,044	1,008	997	520	432	454	444	497	7,351

TABLE 4.4.1

4.4.1 PROGRAM ELEMENT FUNDING

($ In 000's) This illustrates when General Plant Projects and Line Items will receive Project Authorization for FY 1996 funds.

RL WBS	WBS TITLE	ADS NUMBER	FUND TYPE	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1.4.1.07	Canister Storage Building	4110-0	OE	225	182	106	121	105	110	115	121	152	159	162	144	1,702
			CE													0
			GPP													0
			LI	2,487	2,148	2,148	3,955	3,884	4,078	4,272	4,215	2,747	2,886	3,023	2,901	38,744
				2,712	2,330	2,254	4,076	3,989	4,188	4,387	4,336	2,899	3,045	3,185	3,045	40,446
1.4.1.08	Conditioning Facility	4110-0	OE	173	150	150	137	122	117	112	111	116	199	244	199	1,830
			CE													0
			GPP													0
			LI	273	236	236	285	248	261	273	273	248	260	273	235	3,101
				446	386	386	422	370	378	385	384	364	459	517	434	4,931
1.4.1.09	Other Hanford Fuel Retrieval Processing & Storage	4110-0	OE	155	97	97	129	115	128	142	131	122	65	71	60	1,312
			CE													0
			GPP													0
			LI													0
				155	97	97	129	115	128	142	131	122	65	71	60	1,312

TABLE 4.4.2

4.4.2 PROGRAM FUNDING - ADS/FUND TYPE

($ In 000's)

RL WBS	WBS TITLE	ADS NUMBER	OPERATING EXPENSE FY96 BA	OPERATING EXPENSE FY95 Projected Carryover	CAPITAL EQUIPMENT FY96 BA	CAPITAL EQUIPMENT FY95 Projected Carryover	GPP FY96 BA	GPP FY95 Projected Carryover	LINE ITEM FY96 BA	LINE ITEM FY95 Projected Carryover	TOTAL
1.4.1.01	Project Integration	4110-0	9,255								9,255
1.4.1.02	System Integration	4110-0	15,185			87					15,272
1.4.1.03	K-Basin Maintenance & Operations	4110-0	29,553	1,300		201		20			31,074
1.4.1.04	K-Basin Material Removal/ Clean-Up & Deactivation	4110-0	25,246			55					25,301
1.4.1.05	MCO Acquisition	4110-0	2,724								2,724
1.4.1.06	Cask/Transportation System	4110-0	1,446		5,905						7,351
1.4.1.07	Canister Storage Building	4110.-0	1,702	100					38,744		40,546
1.4.1.08	Conditioning Facility	4110-0	1,830						3,101		4,931
1.4.1.09	Other Hanford Fuel Retrieval Processing & Storage	4110-0	1,312								1,312
TOTAL SPENT NUCLEAR FUELS PROJECT			$88,253	$1,400	$5,905	$343	$0	$20	$41,845	$0	$137,766

SPENT NUCLEAR FUEL PROJECT
WBS 1.4.1

FY 1996

WHC-SP-1104

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