Enclosure 1

Proposed 2000-1 Implementation Plan Changes

1. Under the Hanford section of Remaining Actions Under Recommendation 2000-1 section in the Executive Summary and Section 1.3 – Future Plans and Milestones, revise the spent fuel and sludge commitment to:

- All spent nuclear fuel will be removed from the K-Basins by July 2004,
- A treatment method for containerized sludge will be selected by November 2004,
- All K-East sludge will be containerized by December 2004,
- All sludge will be removed from K-East Basin and transferred to K-West Basin by July 2005,
- All sludge in K-West Basin will be containerized by February 2006 and
- All sludge will be removed and packaged for disposal as transuranic waste and low level waste from K-West Basin by April 2007.

2. Add the following paragraph after the first paragraph of the K-Basin Risk Reduction Strategy under Section 4.4.1:

Basin leaks have contaminated underlying soil and groundwater contributing to the human health and environmental risk from the basins. Actions to remove fuel, sludge, water, and contaminated debris from the 100K Basins will greatly reduce the potential for future releases. Potential risks to human health and the environment associated with current conditions include continued fuel degradation resulting in additional sludge production, dissolved radionuclides in the basin water, potential for further basin leaks, seismic vulnerabilities, proximity to the Columbia River, and continuing occupation exposure to workers. Some of the major actions to eliminate these risks and enable other risk reduction activities at Hanford's 100K area are discussed below. Remediation work will continue beyond those covered under this Implementation Plan to achieve interim and final end state of the area.

3. Replace the last paragraph of the K-Basin Risk Reduction Strategy under Section 4.4.1 with the following:

In April 2004, a new path for sludge disposal as transuranic waste and low level waste was defined and planned. Although sludge disposal will be accelerated by more than a decade, completion of sludge removal from the K-Basins has been delayed from the original commitment of August 2004. As a defense-in-depth measure, sludge in both basins will be consolidated and containerized to minimize the potential release of sludge under certain accident conditions. Since the K-East Basin has leaked in the past, it is more vulnerable to environmental releases over K-West in terms of sludge removal and overall decontamination and decommissioning. The K-East Basin has leaked in the past through a construction joint between the K-East reactor and the K-East Basin in the discharge chute of the basin. The construction joint has been sealed but remains a potential vulnerability to a leak, particularly under a seismic event. Additionally, the discharge chute has been isolated from the rest of the basin to reduce the source term

available to release in the event of a leak in the discharge chute. No evidence of leakage has been observed in the K-West Basin. These actions will also enable collection of fuel fragments currently covered by sludge for cleaning and removal from the basins into storage.

4. Delete 3rd key element bullet and the 4th other activity bullet under Spent Nuclear Fuel of Section 5.1. Add the following after the last bullet in Section 5.1:

The original path for sludge was to remove the sludge from the basins and transport it to Hanford's T-Plant where it would be stored until treated for disposal as remote-handled transuranic (RH-TRU) waste. Under this plan, the capacity to treat the sludge was not planned to be in place until after 2017. Delays in the removal of the sludge, due to technical and project management issues at 100K, have caused DOE to establish a new project plan for the K-Basins sludge. This new plan provides an integrated approach to deal with the sludge and includes the near term immobilization and treatment of the sludge. The new path avoids the long term active management of the stored sludge in the 60 year old T-Plant facility, allows for early remediation of the K-East Basin that has leaked in the past, and accelerates the treatment and disposal of the sludge. Those management and technical issues that resulted in the delay of sludge retrieval have been addressed and actions that are being taken will prevent recurrence.

There is a total of about 50 m^3 of sludge that has accumulated in the two basins. Approximately 42 m^3 are in the K-East Basin and approximately 8 m^3 are in the K-West Basin. The sludge is designated as RH-TRU waste and consists of uranium metal/oxides from degraded fuel rods, corrosion products, sand and dirt, spalled concrete, and interstitial basin water containing soluble fission products. All of the fuel in the K-East Basin was stored in open-topped fuel canisters in which the fuel was in direct contact with basin water. Some of the fuel canisters in the K-East Basin also had a screen bottom. As the fuel elements degraded, some fuel pieces would corrode, break off, and fall onto the basin floor. Fuel in the K-West Basin was all stored in capped fuel canisters. The different storage conditions resulted in K-East Basin having higher activity sludge with fuel pieces entrained in the sludge matrix and K-West Basin having lower activity sludge. The sludge has an unshielded radiation field that measures greater than 5 REM per hour with particles ranging from 0.25 inch down to the micron level and poses a radioactive airborne hazard if allowed to dry. Entrained pieces of uranium metal in the sludge can react with water to generate hydrogen. Three basic groupings of sludge currently exist, making up the 50 m^3 sludge material. The combined sludge volume of the K-East and K-West North Load Out Pits (NLOPs) is about 10 m^3 (6.5 m^3 - K-East, 3.5 m^3 – K-West) and has a lower activity. A small volume (0.4 m^3) of very high activity sludge is in the K-West Integrated Water Treatment System (IWTS) knockout pots and strainers. The remainder of the sludge (~ 40 m^3) consists of K-East Basin fuel canister and floor sludge and K-West Basin IWTS settlers.

K-East NLOP Processing Path

Most or all of the sludge from the K-East NLOP will be grouted into contact-handled transuranic (CH-TRU) waste for shipment to the Waste Isolation Pilot Plant (WIPP). Equipment to remove the K-East NLOP sludge is currently available and retrieval operations can be performed in parallel with fuel removal activities. The sludge will be placed into Large Diameter Containers and transported for treatment at 325 Building. It is anticipated that some of the sludge may be low level waste through the grouting process. These low level wastes will be disposed of at the Environmental Restoration Disposal Facility. Grouting activities may overlap with the transfer of sludge from K-East to K-West. If this occurs, grouting activities may be terminated and the remainder of the NLOP sludge may be transferred with the consolidated K-East sludge to the K-West Basin consolidation tanks.

K-West IWTS Knockout Pots and Strainer Processing Path

The small volume of very high activity/high U-metal concentration sludge in the K-West IWTS knockout pots and strainers will be processed with other fuel or calcined and processed as waste to WIPP. By May 2004, the analysis of the Cold Vacuum Drying Facility capabilities will be complete. The data will aid in a May 2004 decision on how this material will be processed.

Canister and Floor Sludge, K-West NLOP and IWTS Settlers Processing Path

The remainder of the sludge in K-East and K-West will be consolidated and containerized within each basin. This provides operational efficiency for removing the sludge from the basins and for defense-in-depth for the potential release of sludge to the environment under certain accident conditions. K-East sludge consolidation and containerization will be completed by December 2004. K-West sludge consolidation and containerization will be completed by February 2006. The process of vacuuming the bays and straining the sludge before pumping it into the submerged sludge containers will allow uncovering and segregating found fuel pieces or other debris greater than 0.25 inch hidden by the sludge. Consolidation in K-East would occur after fuel removal is complete. One advantage of the sludge consolidation in K-East and K-West is uranium metal entrained in the sludge that is greater than 0.25 inch would be removed and processed as fuel scrap through the Cold Vacuum Drying System. Similarly, any found fuel will be processed through the Cold Vacuum Drying System without waiting for sludge processing to be complete. The K-East consolidated sludge will then be slurried and transferred via doubly contained piping and consolidated with the sludge in the K-West consolidation tanks to allow further risk reduction activities to proceed in the K-East Basin. Other advantages of this plan are reduced operator exposure in K-West processing areas compared to the K-East Basin areas, and removal of the radiological contamination in some areas of the K-East Basin prior to the completion of sludge processing. Sludge removal from K-East will be completed by July 2005. Currently,

tests on sludge treatment options are being performed. Grout testing/modeling will be completed by April 2004 and the testing on the Cold Vacuum Drying System capability for sludge and some additional grout testing will be complete in May 2004. Data from these tests will aid a June 2004 decision to determine if additional pre-treatment separation of uranium metal from the sludge will be required, the method of separation that will be used, and how the separated metal will be processed. By November 2004, the treatment method will be selected. Additionally, by November 2005 the safety analysis to support treatment will be completed. The sludge will be packaged to the draft RH WIPP Waste Acceptance Criteria (WAC), stored at the Central Waste Complex, and shipped to WIPP once the Hanford Site is certified to ship RH-TRU wastes. A total of 20 m^3 of sludge will be removed by December 2006. Removal and treatment of the remaining sludge will be completed by April 2007.

5. Delete the 2nd and last commitment under the Spent Nuclear Fuel commitments at the end of Section 5.1. Add the following commitments:

Commitment Statement:	Select a treatment method for containerized sludge in K-West Basin
Responsibility:	Manager, Richland Operations Office
Applicable Facilities:	K-West Basin
Commitment Deliverable:	Sludge treatment method selected
Due Date:	November 2004
Commitment Statement:	Complete consolidation (with exception of NLOP) of K-East Basin sludge into interim storage tanks within basin
Responsibility:	Manager, Richland Operations Office
Applicable Facilities:	K-East Basin, Cold Vacuum Drying Facility
Commitment Deliverable:	K-East sludge consolidated and containerized
Due Date:	December 2004
Commitment Statement:	Complete transfer of sludge from the K-East Basin to metal tanks within the K-West Basin
Responsibility:	Manager, Richland Operations Office
Applicable Facilities:	K-East Basin, K-West Basin
Commitment Deliverable:	Sludge from K-East Basin removed
Due Date:	July 2005
Commitment Statement:	Complete consolidation of K-West sludge into interim storage tanks within basin
Responsibility:	Manager, Richland Operations Office
Applicable Facilities:	K-West Basin, Cold Vacuum Drying Facility
Commitment Deliverable:	K-West sludge consolidated and containerized
Due Date:	February 2006

Commitment Statement:	Containerized sludge in K-West will be removed and treated to meet the applicable waste acceptance criteria
Responsibility:	Manager, Richland Operations Office
Applicable Facilities:	K-West Basin
Commitment Deliverable:	All sludge removed from basin and packaged to the draft WIPP RH-TRU criteria
Due Date:	April 2007

6. Add the following to Appendix C references:

Defense Nuclear Facilities Safety Board letter from John T. Conway to Spencer Abraham, dated March 3, 2004, requesting changes to the 2000-1 Implementation Plan for removal of K-Basin sludge.

7. Revise IP Commitment Number 119 and 120 of Appendix D with the following and add footnote:

Commitment Statement:	Select a treatment method for containerized sludge in K-West Basin
IP Commitment Number:	121
Due Date:	November 2004
Commitment Statement:	Complete consolidation/containerization of K-East Basin sludge (except NLOP)
IP Commitment Number:	119E
Due Date:	December 2004
Commitment Statement:	Complete removal of containerized sludge from K-East
IP Commitment Number:	120E
Due Date:	July 2005
Commitment Statement:	Complete consolidation/containerization of K-West Basin sludge
IP Commitment Number:	119W
Due Date:	February 2006
Commitment Statement:	Complete removal and packaging of all sludge
IP Commitment Number:	120W
Due Date:	April 2007[7]

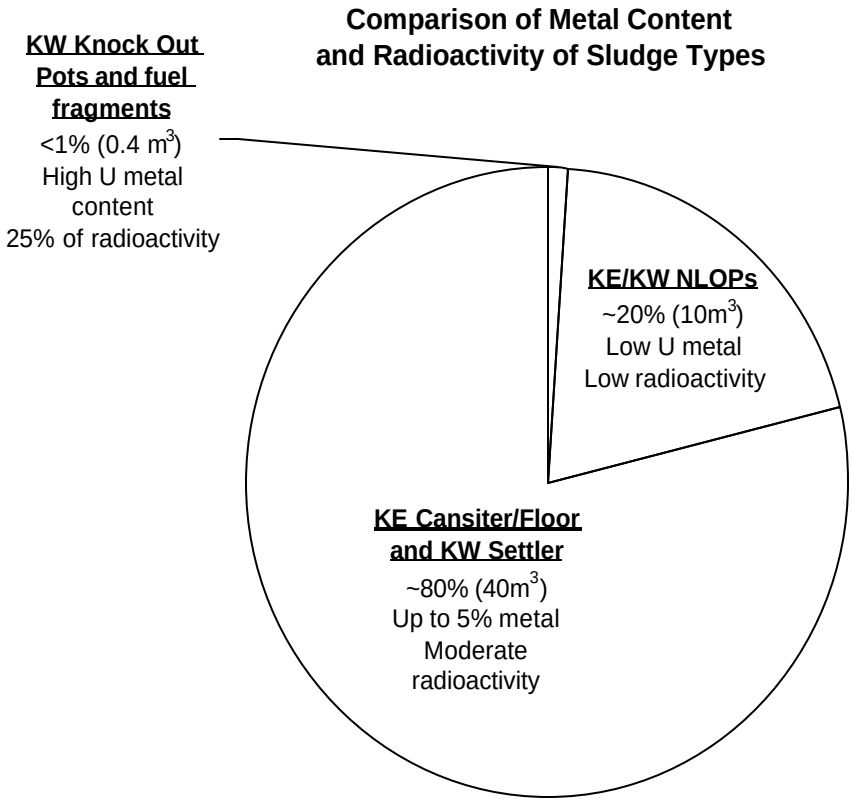
[7]Previous revision due date: August 2004

Enclosure 2

Technical Justification
of
K-Basin Sludge Changes to 2000-1 Implementation Plan

Introduction/Background

There is a total of about 50 m^3 of sludge that has accumulated in the K-East and K-West basins. Approximately 42 m^3 of the sludge is in the K-East Basin and the other 8 m^3 in the K-West Basin. The sludge is designated as remote-handled transuranic (RH-TRU) waste and consists of uranium metal/oxides from degraded fuel rods, corrosion products, environmental particulates, spalled concrete, and interstitial basin water containing soluble fission products. All of the fuel in the K-East Basin was stored in open-topped fuel canisters in which the fuel was in direct contact with basin water. Some of the fuel canisters in the K-East Basin also had a screen bottom. As the fuel elements degraded, some fuel pieces would corrode, break off, and fall onto the basin floor. Fuel in the K-West Basin was all stored in capped fuel canisters. The different storage conditions resulted in K-East Basin having higher activity sludge with fuel pieces entrained in the sludge matrix and K-West Basin having lower activity sludge. The sludge has an unshielded radiation field that measures greater than 5 REM per hour with particles ranging from 0.25 inch down to the micron level and poses a radioactive airborne hazard if allowed to dry. Entrained pieces of uranium metal in the sludge can react with water to generate hydrogen. Three basic groupings of sludge currently exist, making up the 50 m^3 sludge material. The combined sludge volume of the K-East and K-West North Load Out Pits (NLOPs) is about 10 m^3 (6.5 m^3 - K-East, 3.5 m^3 - K-West) and has a lower activity. A small volume (0.4 m^3) of very high activity sludge is in the K-West Integrated Water Treatment System (IWTS) knockout pots and strainers. The remainder of the sludge (~ 40 m^3) consists of K-East Basin fuel canister and floor sludge and K-West Basin IWTS settlers. Below is a chart that illustrates the metal content and relative radioactivity level from the different types of sludge.



The original commitment was to start sludge removal in December 2002 and to transfer K-Basin sludge to T-Plant for interim storage awaiting final treatment and disposal. In the previous IP, no segregation of sludge by uranium content or other factors was planned. The sludge stored in T-Plant would eventually be processed for disposal in a "to be determined" process more than ten years in the future. Preparations were complete at T-Plant to receive sludge from the K-Basins. The sludge was to be transported to T-Plant using large diameter containers (LDCs). In April 2003, the Spent Nuclear Fuel Project suspended a contractor Operational Readiness Review (ORR) for sludge removal activities at K-East Basin, after the Contractor ORR team identified significant issues in the design, testing, engineering, and the readiness preparation process. Technical and project management issues continued to delay sludge removal activities. While conducting recovery actions, it was determined that alternate approaches to sludge removal may provide better opportunities to minimize handling and prepare the sludge for formal disposition, provide earlier K-Basin remediation, and reduce risk to workers as activities are being conducted. Fluor Hanford Inc.'s (FHI) preferred alternate approach was presented to the Department of Energy, Richland Operations Office (DOE-RL), in December 2003. In March 2004, DOE-RL authorized FHI to proceed with preparations for the initial phase of alternate sludge removal process while development of an approach for later phases was in progress.

In April 2004, a new path for sludge disposal was defined and planned. While completing sludge removal will be delayed from the original commitment of August 2004, final disposition of the sludge will be accelerated by over a decade. The sludge removal project consists of 4 major activities:

1) K-East Containerization,
2) K-East to K-West Basin Transfer,
3) K-West Containerization, and
4) K-West Removal and Treatment for Disposal.

Detailed Proposed Path Forward

Project Management and Engineering Issues and Actions Taken

Previous project management and technical issues that caused commitments to be missed have been evaluated for root cause, and corrective actions are in place to prevent recurrence. When the Spent Nuclear Fuel Project suspended a Contractor ORR for sludge removal activities at K-East Basin, the Contractor ORR team identified significant issues in the design, testing, engineering, and the readiness preparation process. Subsequently, Fluor Hanford Inc. initiated an independent review of the technical baseline and an evaluation of broader scope issues that contributed to premature declaration of readiness. The independent review identified 185 issues related to the adequacy of the Sludge Water System design. The broader scope review evaluated the programmatic failures in Executive Oversight, Project Management/Construction Management, Design/Testing, Procurement/Subcontractor Management, and Integrated Safety Management Systems. The 185 specific technical issues have either been completely resolved or dispositioned independently by site engineers as no longer necessary or not an issue. The corrective actions identified in the Broader Scope Report addressed the near term and long term corrective actions to prevent recurrence. All near term actions have been completed with approximately 65 percent of all corrective actions completed. Compensatory measures and additional oversight have been added until all corrective actions have been completed and verified. Some of the major outstanding actions that are still being worked include completing programmatic changes to the engineering procedures, performing a validation review after all actions are complete, and conducting a review by a senior management board.

K-East Containerization

With the exception of the sludge in the NLOP, all remaining sludge will be vacuumed into submerged tanks within the K-East basin. Four tanks (containers) will be installed in areas adjacent to the main K East Basin. Tanks will be installed in Weasel Pit, the entry to the Weasel Pit, and the two entry points to the Technical Viewing (Tech View) Pit. The containers will be constructed from

stainless steel plate in annular sections and bolted together using radiation resistant gaskets. The tanks will be fit assembled and leak tested, then disassembled prior to reassembly in the basin. The tanks are considered General Service equipment, but are expected to provide some degree of defense-in depth protection to prevent the release of sludge to the environment in the event of basin dewatering, such as might be caused by a basin drop event.

The objectives of the K-East sludge containerization are to:

1. Allow for the identification and removal of fuel scrap and found fuel out of the basin prior to the completion of sludge processing.
2. Make subsequent movement of consolidated sludge easier and more efficient.
3. Allow accelerated basin deactivation.
4. Provide a defense-in-depth measure to mitigate the potential release of sludge to the environment under certain accident conditions.
5. Minimize removal time of the sludge from the basin.
6. Allow mixing for more homogeneous sampling and monitoring of the sludge.

The technical approach consists of the following major steps:

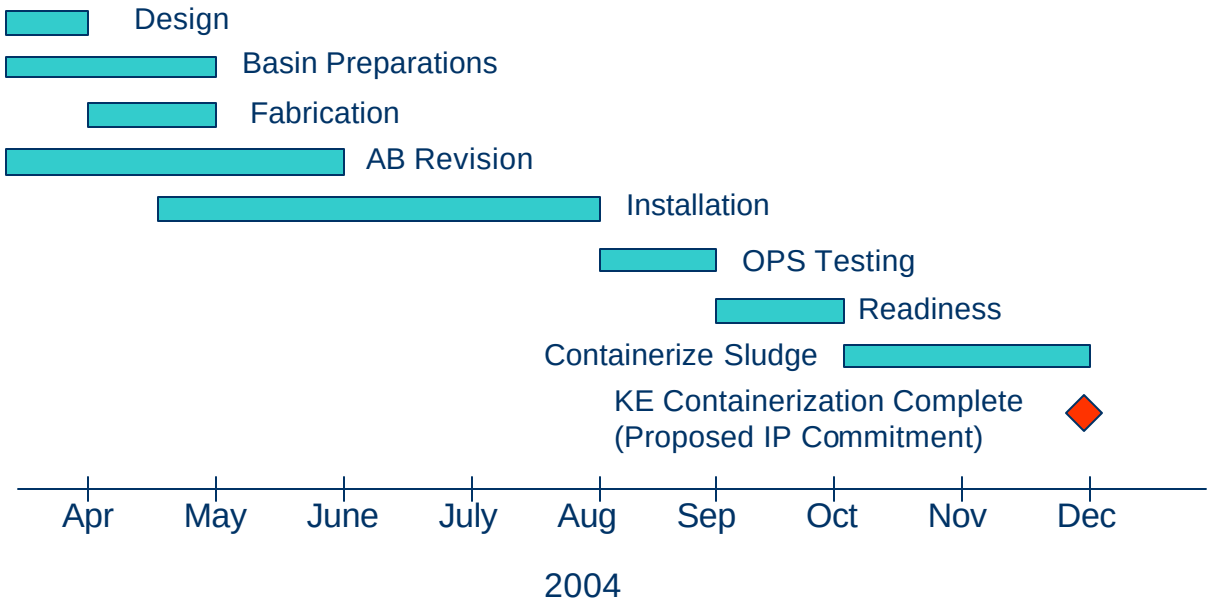
1. Construction of tanks in the basin that will have enough capacity for all of the sludge in K-East in accordance with approved design criteria.
2. Retrieving and consolidating approximately 37 m^3 of sludge from the K-East Basin floor and pits. The existing sludge retrieval system would be used and is capable of pumping the sludge slurry from the basin floor at 60 gpm. One pump will feed 2 containers to achieve a proper settling velocity. A flocculent will be injected in the slurry stream to aid in particle settling via an in-line static mixer. Additionally, inclined tub settlers installed at the top of each container will aid in settling the sludge, keeping it in the tank, and minimizing it from adding turbidity to the basin water.
3. Screening out fuel scrap/debris greater than 0.25 inch (material less than 0.25 inches is considered sludge).
4. Retrieve any found fuel
5. Transfer fuel scrap and found fuel to the K-West Basin for processing and shipment to the Canister Storage Building for long term storage.

The NLOP sludge is targeted for early removal from the K-East Basin. Most or all of the sludge from the K-East NLOP will be grouted into contact-handled transuranic (CH-TRU) waste for shipment to the WIPP. Testing has been conducted by PNNL to verify that the resultant waste would be acceptable to WIPP. Grouting the K-East NLOP sludge would reduce the amount of RH-TRU waste to WIPP, reduce the overall risk sludge poses to the environment, and improve personnel exposure through the elimination of long term storage.

Additionally, the grouting process will provide empirical data on waste form characteristics, shielding properties, and required curing times. The data will be used to optimize any future sludge grouting procedures. Equipment to remove the K-East NLOP sludge is currently available and retrieval operations can be performed in parallel with fuel removal activities. The sludge will be placed into LDCs and transported for treatment at the Radiochemical Processing Laboratory (Building 325). It is anticipated that some of the sludge will be characterized as low level wastes (LLW) through the grouting process. LLW will be disposed of at the Environmental Restoration Disposal Facility. Grouting activities may overlap with the transfer of sludge from K-East to K-West. If this occurs, grouting activities may be terminated and the remainder of the NLOP sludge will be transferred with the consolidated K-East sludge to the K-West Basin.

Below is a schedule that shows major activities for the containerization of K-East sludge. Dates for all sludge removal activities have been derived from a resource loaded schedule.

K-East Containerization Schedule



K-East to K-West Basin Transfer

The containerized K-East sludge will then be transferred via doubly contained piping and consolidated into the K-West containerization tanks. The sludge will be transferred as a slurry consisting of water and approximately one percent sludge. Lessons learned from the tank farm high level waste above ground transfer lines will be incorporated into the design, fabrication, and operation of

this system. Grouting activities of the NLOP may overlap with the transfer of sludge from K-East to K-West. If this occurs, grouting activities may be terminated and the remainder of the NLOP would be transferred with the consolidated K-East sludge to K-West Basin consolidation tanks. Sludge removal from K-East will be completed by July 2005.

The objectives of the K-East to K-West sludge transfer are to:

1. Transfer all sludge into one facility for more efficient treatment processing.
2. Allow accelerated decontamination and decommissioning and removal of the K-East Basin.
3. Improve worker safety (ALARA) during processing.
4. Include further metal separation, if necessary.

The technical approach consists of the following major steps:

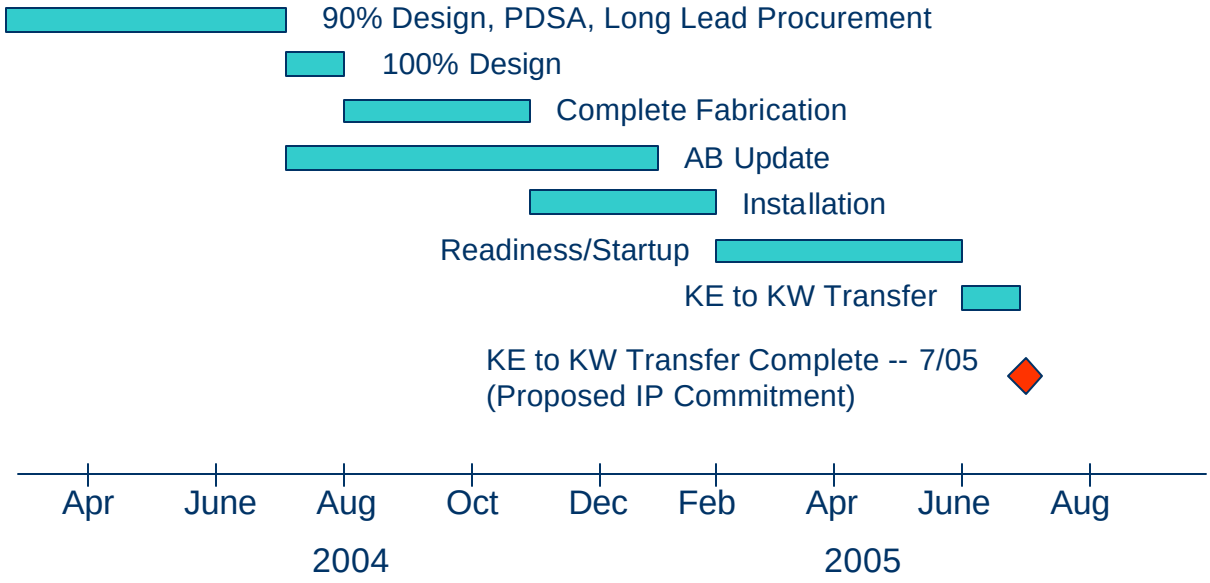
1. Design and construct hose-in-hose transfer system between K-East and K-West Basin.
    - The pumping system will use a proven design from the Tank Farm transfers. The double contained hoses will be provided with leak detection capabilities to warn of leakage and hose and fitting designs from the Tank Farm transfers will also be used. Sludge slurry (consisting of about 1 percent sludge) will be pumped over a distance of 2, 200 feet and will require 3 booster stations. A K-West water return pump will also be installed.
2. Design and construction of containers in K-West.
3. The containerized sludge in K-East will be pumped to the K-West Basin tanks.
    - The sludge will be pumped at a sufficient velocity to prevent particles from settling out along the length of the piping. Pumping will be done in batches and will be limited by allowable water level changes in the basins. Because of the considerable dilution, dose for workers will be minimized. When a sufficient amount of sludge slurry has been pumped from K-East to K-West, K-East basin water will be used to flush remaining sludge slurry from the piping. Water from K-West Basin will be pumped back to the K-East Basin to maintain water levels in accordance with operational and safety limits.

A series of tests on sludge is currently being performed and will be completed in May 2004. Data obtained from these tests will aid in determining whether further separation of uranium metal (beyond that accomplished by screening 0.25 inch sludge) will be required to optimize the waste treatment operation. The testing will also determine what method will be used to separate uranium metal

from the sludge and how the separated uranium metal will be treated. By June 2004, a determination will be made if additional pre-treatment separation is needed and the method to be used. This further separation will take place during the transfer of sludge from K-East to K-West and during the containerization of the K-West sludge.

Below is a schedule that shows major activities for sludge transfer from K-East to the K-West Basin.

K-East to K-West Transfer Schedule



K-West Containerization

Less consolidation of sludge from pits and the basin floor will be required in the K-West Basin. Some of the sludge is already containerized, including the high activity sludge contained in the IWTS Knock Out Pots. Also, there is much less sludge in the K-West Basin than K-East Basin because of different fuel storage conditions.

The objectives of containerization of the K-West sludge are to:

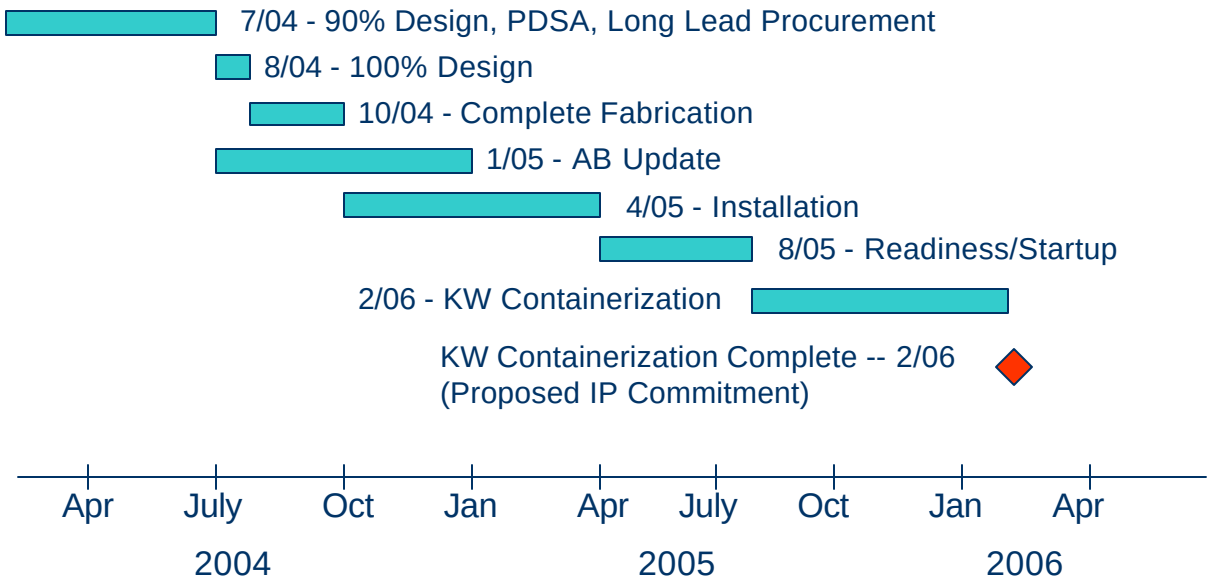
1. Allow for the identification and removal of fuel scrap and found fuel out of the basin prior to the completion of sludge processing.
2. Make the subsequent movement of consolidated sludge easier and more efficient.
3. Allow accelerated basin deactivation.
4. Provide a defense-in-depth measure to mitigate the potential release of sludge to the environment under certain accident conditions.
5. Minimize removal time of the sludge from the basin.
6. Allow mixing for more homogeneous sampling and monitoring of the sludge.

The technical approach consists of the following major steps:

1. Retrieve and consolidate approximately 4.6 m^3 of sludge from the K-West Basin floor and pits.
    a. Retrieve sludge from the west bay, in the vicinity of fuel processing, into the IWTS.
    b. Retrieve the balance of floor and pit sludge into the K-West containers.

Below is a schedule that shows major activities for sludge containerization in the K-West Basin.

K-West Containerization Schedule



K-West Removal and Treatment for Disposal

The baseline path is to pump sludge out of the K-West sludge containers and grout the sludge in 55-gallon drums and then place them in lead-lined overpack drums for storage at the Central Waste Complex. This grouting operation is planned to be done in K-West Basin.

As mentioned previously, a series of tests on sludge is currently being performed that will aid in determining whether further separation of uranium metal (beyond that accomplished by screening 0.25 inch sludge) will be required as a preliminary step in the waste treatment operation. Once the sludge separation details have been determined a process to safely treat and package the sludge to the draft RH TRU WIPP Waste Acceptance Criteria (WAC) will be initiated. By November 2004, the treatment method will be selected. The design of the treatment system will be completed and used to update the Authorization Basis document by November 2005. Treatment and packaging operations will commence and a total of 20 m^3 of sludge will be removed by December 2006. Removal of the remaining sludge will be completed by April 2007. The treated and packaged sludge will be stored at the Central Waste Complex. Shielding will be provided to reduce personnel exposure.

The small volume of very high activity/high U-metal concentration sludge in the K-West IWTS knockout pots and strainers will be processed with other fuel or calcined and processed as waste for disposal at WIPP. By May 2004, the analysis of the Cold Vacuum Drying Facility capabilities will be complete. The data will aid in a May 2004 decision on how sludge material will be processed. Changes to the authorization basis, as well as possible equipment modifications, will be required.

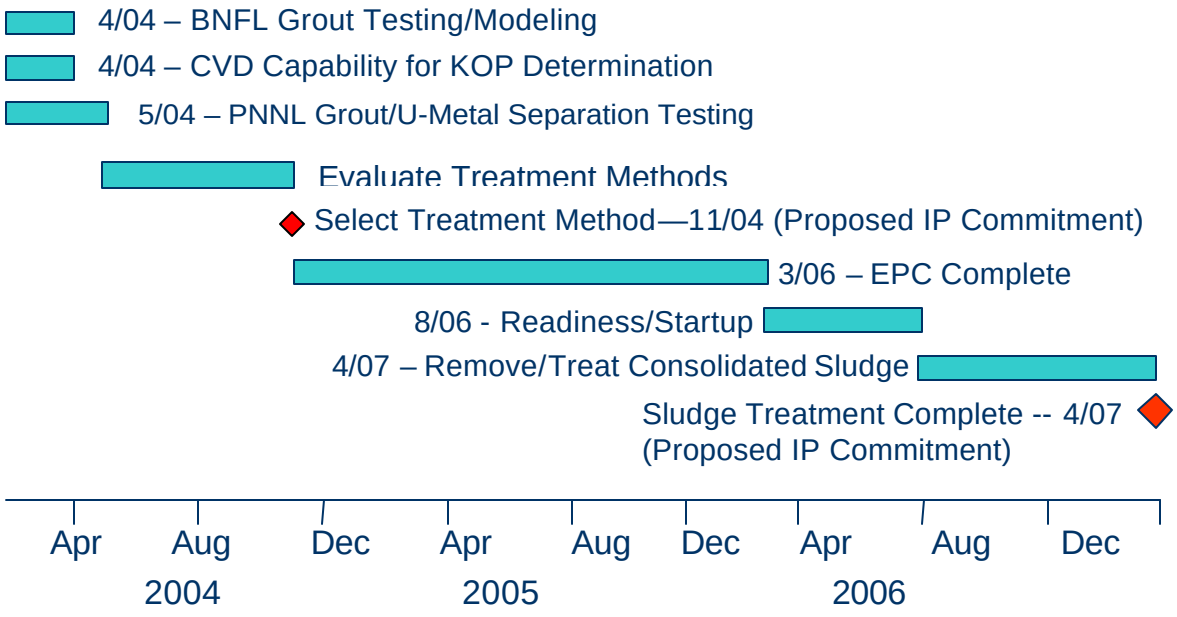
The objectives of the removal and treatment for disposal from the K-West Basin are to eliminate long term active storage of "wet" sludge and to allow the decontamination and decommissioning of K-West Basins to proceed.

The technical approach consists of the following major steps:

1. Install treatment and packaging equipment.
2. The sludge will be retrieved from consolidation tanks.
3. The sludge will be grouted to meet the draft RH TRU WIPP WAC.
4. Resultant RH TRU waste form will be placed in lead overpack drums
5. Shipped to the Central Waste Complex for interim storage awaiting certification and shipment to WIPP.

Below is a schedule that shows major activities for sludge removal and treatment and packaging from the K-West Basin.

K-West Sludge Removal and Treatment and Packaging Schedule



Overview of Significant Project Risk and Mitigation Plan

The risk assessment focuses on issues and problems that could jeopardize committed project dates. Any risk that is deemed medium or high will have a risk mitigation action.

Risk Assessment Table

Project Activity	Preliminary Risk Assessment (high, medium, low)	Risk Description	Risk Mitigation Action
All Activities	High	Previous readiness declaration and related configuration control, conduct of engineering, and work control failures	• Project Team and Management changes have been made to ensure site conduct of engineering processes are followed. • Independent acceptance inspectors will review all design, construction, and testing activities to ensure key sludge systems conform to design. • Additional engineering and nuclear safety oversight will be provided to ensure high quality in Conduct of Engineering. • Process engineering team has been established to provide an integrated approach to sludge removal and treatment.
Basin-to-Basin Sludge Transfer System	Medium	Limited experience with this type of operation	• Technology and experience from DOE high level waste transfers, mining slurry, and contaminated soil removal operations will be used to formulate system design and process parameters.
Uranium metal separation and processing	Medium	Hydrogen generation in the treated waste form may impact processing parameters and treated waste volume depending on the treatment method selected. Separating uranium metal particles less than 0.25 inch will reduce hydrogen generation concerns. Smaller sized metal particles become increasingly more difficult to dry through the Cold Vacuum Drying Facility.	• Gas generation and unit operations testing will be conducted to optimize waste processing. • Additionally, modeling of drying time for materials less than 0.25 inches is planned.
Interface with other Basin Activities	Low	Sludge movements impact water clarity and airborne contamination, which affect other basin activities such as fuel removal	• Improvements to the water treatment system have been initiated and use of “localized” water filtering system is planned. • Localized contamination postings will continue to be used.
Waste Packaging	Low	WIPP RH TRU waste acceptance criteria not approved.	• Waste being packaged at risk to draft RH criteria. EPA has recently approved the RH certification process.