OHIO FIELD OFFICE
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WEST VALLEY DEMONSTRATION PROJECT

SITE UTILIZATION MANAGEMENT PLAN
August 2005

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1.0 Executive Summary

This document has been updated to describe how the Department of Energy (DOE) Ohio Field Office (OH) will approach completion of the West Valley Demonstration Project (WVDP or the Project) in a manner, consistent with the February 2002 DOE Office of Environmental Management (EM) Top-to-Bottom review recommendations:

- Utilize DOE resources most efficiently to prioritize and accelerate risk reduction;
- Employ sound project management principles; and
- Employ contract management strategies to support accelerated completion.

The scope necessary for execution in order to achieve EM completion is:

- ✓ All low level waste (LLW) and transuranic (TRU) waste generated by DOE as a result of the high level waste (HLW) solidification project have been disposed;
- ✓ The HLW canisters have been safely stored for future off-site shipment;
- ✓ All DOE-managed Project facilities, with the exception of those required for the interim storage of the HLW canisters, have been removed, deactivated and/or decontaminated and resulting waste disposed; and
- ✓ The HLW underground storage tanks and site facilities for which DOE has responsibility have been decommissioned to support Nuclear Regulatory Commission (NRC) criteria.

In order to support execution of scope associated with EM completion at WVDP, DOE has been working toward finalization of a Waste Management Record of Decision (ROD) that will support off-site disposition of the LLW and TRU waste. Additionally, DOE and New York State (NYS) are jointly developing an Environmental Impact Statement (EIS) for Decommissioning and/or Long-term Management of the WVDP, with participation by cooperating agencies including the NRC, Environmental Protection Agency (EPA), and New York State Department of Conservation (NYSDEC).

There are several events in recent years that have contributed to DOE revising its path forward for achieving EM completion at the WVDP:

(1) NYS declared that negotiations with DOE regarding responsibilities for decommissioning and/or long-term stewardship, including payment of the HLW fee, were at an impasse;

(2) All agencies participating in development of the Decommissioning and/or Long-Term Management Environmental Impact Statement (Decommissioning EIS) expressed a strong desire for DOE to proceed with a schedule that accommodated adequate public review and comment periods. DOE has contracted for completion of the Decommissioning EIS and Decommissioning Plan required by the NRC to be completed in parallel, resulting in a ROD planned for publication in 2008;

(3) Waste disposition challenges emerged as a result of litigation concerning DOE's Radioactive Waste Management policy pertaining to making determinations that some waste streams are incidental waste and not high level waste;

(4) DOE has not resolved issues impacting the determination of a disposition pathway for WVDP TRU waste;

(5) A ROD for Waste Management that will allow for off-site disposition of Class B and C LLW was not published in 2004 as previously planned. The ROD was finalized June 9, 2005 and will be made available to the public by the end of the month, after which time it is able to implemented;

(6) Workforce restructuring efforts previously planned for implementation in FY2004 were deferred until FY2005;

(7) Based on direction from the Assistant Secretary for Environmental Management (EM-1) resulting from a WVDP baseline review conducted in 2004, decommissioning and closure of the high level waste tank farm and other facilities for which DOE is responsible has been reincorporated into the planning basis for EM completion.

Interim End State Completion FY2010:

Until evaluation and analysis of various closure alternatives supporting development of the Decommissioning EIS are concluded with a Decommissioning ROD, DOE will proceed toward Interim End State completion by the end of FY2010 (Figure 1). The WVDP Interim End State is defined as:

- Shipment of all LLW and TRU waste generated by DOE as a result of the HLW solidification project;

- Deactivation, demolishment and removal of all DOE-managed facilities (foundations remain), with the exception of the former spent nuclear fuel reprocessing facility (i.e. process building) and any other support facilities required for the interim storage of the HLW canisters;

- Removal of major components and decontamination of the process building; and

- Configuring utilities and infrastructure to achieve cost effective long-term storage and maintenance of the process building and other facilities, including the HLW tank farm, until off-site transport of the HLW canisters can be facilitated.

Interim End State Completion – Process building decontaminated, LLW and TRU waste shipped off-site for disposal, non-essential facilities demolished or removed (foundations remain).

EM Completion End State:

Following publication of the Decommissioning EIS ROD, currently planned for 2008, DOE will proceed toward implementation of actions necessary to achieve EM Completion. The end state for EM Completion will be achieved when the following actions have been performed:

- Decommissioning of the HLW tank farm (i.e. in-place closure of the HLW tanks [grout, cap] or HLW tank exhumation and off-site disposal);
- Remediation of lagoons, sludge ponds and water treatment systems, as applicable;
- Removal and disposal of facility foundations and contaminated soil, as applicable;
- Installation of erosion controls and environmental monitoring requirements;
- Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) survey and sampling; and
- Implementation of other actions as required by the Decommissioning EIS ROD.

EM Completion End State – HLW canisters safely maintained in process building awaiting transport to a federal repository. HLW tank farm and WVDP facilities remediated per Decommissioning EIS ROD.

WVDP Final End State:

Activities to be implemented to achieve the Final End State for the WVDP once transport of the HLW canisters to a federal repository can be facilitated include:

- Construction of load-out facility;
- Shipment of the HLW canisters off-site;
- Final decommissioning of the process building consistent with Decommissioning EIS ROD;
- Demolition and removal of any other interim storage support facilities; and
- Transition of the site back to the State of New York.

This approach to working toward Interim End State completion while the Decommissioning EIS is in development allows DOE to utilize its near-term resources to support waste disposition and infrastructure reduction for which there is regulatory support. Both efforts will make progress toward reduction of risk and annual site operating costs while regulatory issues associated with performing future work are resolved.

Scope associated with Project waste disposition, process building decontamination and removal of non-essential facilities can proceed in the near-term, utilizing a National Environmental Policy Act (NEPA) strategy that will allow the most flexibility for planning and executing work. These efforts will proceed toward Interim End State completion by the end of FY2010, providing adequate time for completion of the NEPA process to arrive at a ROD for decommissioning and to resolve outstanding issues between the federal and state governments regarding the HLW canisters and long-term stewardship. Other attributes of this approach include:

- Focuses available resources on accelerating work scopes that support DOE's mission and risk reduction;
- Provides adequate time to finalize and evaluate decommissioning alternatives and develop a Decommissioning Plan for the NRC that demonstrates DOE's ability to comply with the NRC's decommissioning criteria based on DOE's preferred closure alternative;
- Provides for implementation of a strategy that will maximize the use of innovative contracting and sound project management principles; and

- Provides adequate time to support the interface necessary with stakeholder and regulatory agencies in support of the NEPA process to arrive at a Decommissioning ROD.

Once the Decommissioning EIS ROD is published, DOE will proceed with planning and implementation of WVDP closure for the HLW tank farm and additional site facilities for which DOE is responsible. Issues preventing possible final decommissioning of the site, and transition of the WVDP site to another organization for long-term surveillance and monitoring, include HLW canister transport, decommissioning of the process building, and demolition and removal of any other interim storage support facilities.

The overall completion date for DOE is uncertain since there are outstanding issues between the federal and state governments regarding the HLW canisters, and since a federal repository or off-site shipment destination is not yet available. Project completion will be achieved for the Department once all provisions of the WVDP Act of 1980 have been satisfied and the site accordingly returned to NYS.

2.0 Background

The West Valley Demonstration Project (WVDP) Act of 1980 (Public Law 96-368) directed DOE to demonstrate the solidification of high-level radioactive waste (HLW). The Project is on New York State (NYS) owned property and is the site of the only commercial spent nuclear fuel reprocessing facility to operate in the United States. The facility was operated by Nuclear Fuel Services (NFS), under a Nuclear Regulatory Commission (NRC) license from 1966 to 1972.

During commercial operations of the site in the late sixties and early seventies, approximately 640 metric tons of spent nuclear fuel was reprocessed. Reprocessing operations were halted between 1972 and 1976 to support facility modifications, but operations never resumed. When DOE became responsible for the site in 1980, approximately 600,000 gallons of liquid HLW were stored in two single shelled, carbon steel underground tanks.

DOE's mission as defined by the WVDP Act is to:

- ✓ Solidify, in a form suitable for transportation and disposal, the high level radioactive waste at the Western New York Nuclear Services Center (the Center) by vitrification or by such other technology which the Secretary determines to be the most effective for solidification;
- ✓ Develop containers suitable for the permanent disposal of the high level radioactive waste solidified at the Center;
- ✓ As soon as feasible, transport, in accordance with applicable provisions of law, the waste solidified at the Center to an appropriate federal repository for permanent disposal;
- ✓ In accordance with applicable licensing requirements, dispose of LLW and TRU waste produced by the solidification of the HLW under the project; and
- ✓ Decontaminate and decommission (a) the tanks and other facilities of the Center in which the high level radioactive waste solidified under the project was stored, (b) the facilities used in the solidification of the waste, and (c) any material and hardware used in connection with the project, in accordance with such requirements as the NRC may prescribe.

DOE also entered into separate agreements with Nuclear Fuel Services (the former commercial operator of the spent fuel reprocessing facility) and the State of New York, owner of the property on which the WVDP is conducted, whereby DOE took title to 125 spent nuclear fuel assemblies and committed to shipping them off site.

DOE has completed the first two mandates of the WVDP Act – solidification of the liquid HLW and development of containers suitable for permanent disposal of the HLW. There are currently 275 HLW canisters that have been produced in accordance with federal repository requirements that are in safe storage within the former spent fuel reprocessing plant. The remaining work to be completed by DOE per the WVDP Act includes (1) shipment of the HLW canisters to a federal repository, (2) disposal of Project-generated LLW and TRU waste, and (3) facility decontamination and decommissioning. In accordance with the DOE and New York State Energy Research and Development Authority (NYSERDA) spent fuel agreement, DOE completed its obligation and shipped the 125 spent fuel assemblies to the Idaho National Environmental and Engineering Laboratory (INEEL) in July 2003.

The previous DOE approach to completion of its EM mission at the WVDP is documented in the July 2002 WVDP Performance Management Plan (PMP). The 2002 PMP was based on a path forward associated with performing waste disposition and Project facility decontamination and decommissioning in parallel, completing EM's mission at the WVDP by the end of FY2012. Specifically, the 2002 PMP plan included:

- Completion of decontamination operations by the end of calendar year 2004 to reduce the site's highest risks and prepare for decommissioning;
- Completion of construction and operational readiness of the Remote Handled Waste Facility (RHWF) by the end of calendar year 2004 to support dispositioning of Project generated high activity and TRU waste and further reduce site risk;
- Completion of preparations for waste management operations by shipping Spent Nuclear Fuel (SNF) to INEEL, identifying a receiver site for WVDP TRU waste, and opening shipment corridors for disposition of Project waste by FY2005; and
- Acceleration of Project decommissioning so that it is performed in parallel with waste management operations beginning in FY2005.

As of December, 2004, DOE was able to make significant progress toward the first two objectives associated with the July 2002 PMP. The most highly contaminated portions of the former spent nuclear reprocessing facility (i.e. process building) have

been decontaminated and significant progress has been made toward decontaminating and dismantling the in-cell portion of the Vitrification Facility.

Construction and startup of the RHWF, which was designed and constructed to help process and package TRU and other high activity waste for disposal, was also completed ahead of schedule. Successful startup of the RHWF in June 2004 was a critical step toward achieving waste processing and disposition goals associated with overall site risk reduction during the next phase of the Project. Two of thirteen legacy waste streams have been processed and prepared for disposition and more than 9700 m^3 of legacy LLW have been shipped for disposal, making progress toward the third objective listed in the table above. As previously noted, the SNF was also successfully shipped via rail to INEEL in July, 2003.

An EIS for Waste Management was finalized in February, 2004 and a ROD prepared. The ROD prepared at that time would have addressed off-site disposal of the Project's low level Class B and C waste, but there were outstanding issues regarding identification of a receiver site for WVDP TRU waste, as well as concerns regarding evaluation determination waste. As such, the ROD was not published in 2004 as previously planned, and was recently finalized within EM on June 9, 2005. The final ROD defers a decision regarding HLW and TRU at this time, and will be made available to the public by the end of the June, 2005, thereby making it available for implementation.

Additionally, several events have occurred since the development of the 2002 PMP that have contributed to DOE re-evaluating of its path forward for achieving EM completion including:

1) NYS declared that negotiations with DOE regarding responsibilities for decommissioning and/or long-term stewardship, including payment of the HLW fee, were at an impasse. Negotiations between DOE and NYS regarding long-term responsibility at the WVDP had been active between 1999 and 2001. Attempts have been made since to continue resolution of outstanding issues, including responsibility for the HLW fee;

2) All agencies participating in development of the Decommissioning EIS expressed a strong desire for DOE to support a schedule that results in a ROD in 2008, as opposed to DOE's proposed accelerated EIS schedule that would result in a ROD in 2005. The approach to obtaining the Decommissioning EIS ROD has been redeveloped employing a revised contracting strategy, incorporating regulatory agency input regarding the process. A Decommissioning EIS ROD is currently scheduled for publication in 2008;

3) Waste disposition challenges emerged as a result of litigation concerning DOE's Radioactive Waste Management (DOE O 435.1) policy pertaining to the process of making determinations of incidental waste;

4) DOE has modified its planning basis for decommissioning several times based on regulator and stakeholder input. DOE's current planning basis for decommissioning involves performing decontamination and decommissioning of Project facilities to the extent possible assuming that the HLW canisters will remain in their current storage configuration in the former SNF reprocessing facility (i.e. process building) until such time that transport to a federal repository or off-site shipment can be accommodated. When that is completed, DOE will implement remaining decommissioning actions consistent with the final ROD;

5) As noted above, DOE has not determined a disposition pathway for WVDP TRU waste;

6) Workforce restructuring efforts previously planned for implementation in FY2004 were deferred until FY2005. Workforce restructuring is necessary to align the current skill mix and employment level with the work that is planned to be accomplished with less funding available as compared to prior years. Federal funding in FY2005 is more than 20% less than previous years, and workforce restructuring is critical to support the revised planning basis for WVDP activities; and

7) Based on direction from EM-1 resulting from a WVDP baseline review conducted in 2004, decommissioning and closure of the HLW tank farm and other facilities for which DOE is responsible has been reincorporated into the planning basis for EM completion.

DOE has modified its planning basis for the future to accommodate the regulatory uncertainties and can continue to proceed toward accomplishment of interim end state completion by FY2010 with less annual funding requirements than previously estimated in the July, 2002 PMP.

3.0 Path Forward for Interim End State Completion

In order to support DOE's goals, as outlined in the EM Top-to-Bottom review, DOE will direct its resources to focus on acceleration of work scopes at the WVDP (1) for which there is general consensus among the DOE, the site owner, regulators, and the public; (2) that supports EM mission completion; and (3) that reduces overall site operating costs.

Since the HLW canisters will be maintained in their current storage location in the process building until such time that off-site shipment can be arranged, the current approach to achieving EM completion will be completed in two phases. First, DOE will proceed toward Interim End State completon which will include the demolishment /removal of structures and facilities no longer needed to support safe site operations, and decontamination of the process building to minimize surveillance and maintenance costs associated with oversight of the HLW canisters until such time that they can be transported off-site. Decontamination of the process building is also expected to minimize the final actions needed for closure of the Project once the HLW canisters have been dispositioned to a federal repository per the WVDP Act.

Once the Decommissioning EIS ROD is published in 2008, the planning and implementation for decommissioning activities for the HLW tank farm and other facilities under DOE's responsibility can be initiated to support EM completion. Any final decommissioning actions needed for the process building after removal of the HLW canisters from their current storage configuration will be deferred until such time that the HLW canisters can be transported off-site.

The following milestones support the ability to achieve Interim End State completion by FY2010:

- ✓ Complete workforce restructuring and disposition of Class A legacy LLW in 2005;
- ✓ Issue a ROD for Waste Management in 2005;
- ✓ Open a disposition pathway for WVDP TRU in 2006;
- ✓ Complete the final EIS for Decommissioning and/or Long-term Management of the WVDP and publish ROD in 2008;

- ✓ Complete processing and packaging of legacy TRU and other high activity waste by 2009 in preparation for disposal;
- ✓ Complete decontamination operations in the process building by 2010 to cost effectively maintain the HLW canisters, and prepare the facility for final closure after HLW canisters have been removed; and
- ✓ Complete decontamination and removal of non-essential facilities to the extent possible, including demolition of the RHWF and Vitrification Facility, by 2010.

While DOE begins to work toward Interim End State completion in FY2010, DOE will also continue to finalize the Decommissioning EIS in accordance with a schedule that supports a ROD in 2008. This schedule will allow:

- The necessary dialogue with the NRC, regulatory agencies, the public, and elected officials to ensure a common understanding of the site to support decision making with respect to both DOE and NYS responsibilities pertaining to long-term stewardship; and
- Time for review and input that the agencies involved in the Decommissioning EIS process have indicated is necessary, which will have the added benefit of supporting future land use discussions/decisions.

Once the Decommissioning EIS ROD is published, DOE will proceed with securing funding to support planning and implementation of activities necessary to achieve EM completion.

4.0 West Valley Demonstration Project Completion Strategies

4.1 **Baseline Validation Strategy**

The total estimated federal cost to achieve Interim End State completion by the end of FY2010 is approximately $370M. As contracts are awarded to perform work, DOE will pursue validation of the DOE and contractor integrated scope, cost and schedule supporting each contract scope of work, successively achieving greater confidence in the overall lifecycle costs for the WVDP project baseline summaries as each contract baseline is approved.

DOE will be responsible for ensuring appropriate integration of the contracts and providing management and oversight of the integrated contractor and DOE activities to support the management of the WVDP Project Baseline Summaries (PBS) under EM configuration control. Successful integration of these efforts will be necessary to ensure the identification of key activities required to achieve Interim End state completion, followed by accomplishment of EM completion.

DOE is in the process of updating an Independent Cost Estimate (ICE) obtained in the spring of 2004 to take into consideration the current status of the Project and plans for EM completion. When the updated ICE is finalized, a Baseline Change Proposal will be prepared as necessary to request alignment of WVDP out year cost and schedule data with the updated planning basis.

4.2 **National Environmental Policy Act Strategy**

DOE/WVPD is currently supporting the finalization of two NEPA processes needed to support EM completion of WVDP Act mandates. The range of alternatives analyzed as part of the Waste Management EIS and Decommissioning and/or Long-term Stewardship EIS provide DOE the flexibility to pursue optional end states for WVDP facilities (i.e. HLW tank farm, process building) associated with EM completion.

NEPA coverage for EM completion is provided through Categorical Exclusions, the Waste Management EIS, Supplemental Analyses for the WM EIS, and Decommissioning EIS. RODs and/or amendments to RODs can be structured to provide the maximum flexibility to perform work, developing additional supplemental analyses as needed.

DOE published an EIS for Waste Management in 2004. A ROD was developed, but its finalization was delayed due, in part, to concerns associated with evaluation determination waste. Issues associated with the Waste Management ROD were resolved and the ROD was finalized within EM on June 9, 2005, deferring a decision regarding TRU waste at this time. The ROD will be made publicly available by the end of June, 2005 and will be available for implementation at that time. WVDP plans to amend or supplement the ROD as necessary following additional analysis as necessary to support disposition of other waste streams in order to support the plan for Interim End State completion by the end of FY2010 (Figure 1).

The Department also continues to work jointly with NYS toward development of an EIS for Decommissioning and/or Long-term Stewardship of the site. The EIS is being prepared with participation by the NRC, EPA, and NYSDEC as Cooperating Agencies. This EIS process is serving the following purposes:

- Supporting dialogue necessary with NYSERDA and the public to establish the future land use for the site;

- Allowing continued regulatory review and interface (NRC, EPA, NYSDEC) to ensure the physical end state is aligned with a regulatory end state.

DOE will proceed with development of the Decommissioning EIS in a manner that is supported by the joint-lead and cooperating agencies and allows for a public review period at the draft stage. This schedule will result in a ROD in 2008.

To date, DOE has not reached agreement with NYS regarding the timing and level of cleanup required at the WVDP. NYS declared previous negotiations to resolve these issues had reached an impasse and halted discussions. Since DOE and NYS are jointly responsible for development of the Decommissioning EIS, DOE will work to resume serious negotiations with NYS in order to resolve all long standing roles and responsibility issues and arrive at an agreed upon end state. The most important element of this action is to obtain NYS and DOE agreement regarding the same preferred alternative for site

closure and the same stewardship details supporting the final Decommissioning EIS ROD planned for publication in 2008.

5.0 Key Assumptions

The following assumptions support the planning basis for achieving Interim End State completion by the end of FY2010:

- ✓ Adequate funding is appropriated to support performance of scope necessary to achieve Interim End State completion as currently defined. Modification to out-year Congressional funding requests may be necessary once a baseline is established and validated for the scope of work to be accomplished no later than September 30, 2010.

- ✓ The Waste Management ROD is published in 2005 and allows for opening of disposition pathways for the Project's low level Class B and C waste. Supplemental analyses and amendments to the ROD, as necessary, will allow for off-site disposition of the WVDP TRU and evaluation determination waste.

- ✓ A disposition pathway is determined and found acceptable for the Project's TRU waste. Certification of this disposition pathway will be obtained by the end of FY2006 and WVDP TRU disposition is integrated onto the complex wide shipping schedule to support off-site disposition beginning in FY2007.

- ✓ Neither ROD for Waste Management or Decommissioning is contested legally, delaying DOE's ability to implement waste disposition and decommissioning activities;

- ✓ Contract awards for scope execution are implemented in a timely manner to support achieving Interim End State completion no later then the end of FY2010; and

- ✓ Out-year estimates supporting workforce restructuring and annual pension requirements are consistent with the current planning basis.

The following Government Furnished Services/Items table outlines the key milestones that must be achieved for successful implementation of this plan to accomplish Interim End State completion by FY2010.

Government Furnished Services / Information		Responsible Party	Due Date
Decisions that Affect Progress	Obtain Certification / Open Corridors for Class B, C LLW Disposal	OH / WVDP	2005
	Establish WVDP TRU Waste Pathway for Disposal	HQ	2006
NEPA	Publish Waste Management ROD	HQ	2005
	Publish Decommissioning ROD	HQ	2008
Contract / Baseline Strategy	Award prime contract to begin In 2006	HQ / OH	2006
	Validate Integrated Baseline Plan for Interim End State Completion	OH / EM	Within 180 days following contract award(s)
	Obtain annual funding support consistent with the validated integrated baseline plan(s).	OH / EM	Annually

6.0 Cost and Schedule Summary

6.1 **Planning Basis**

An Independent Cost Estimate (ICE) was obtained in 2004 to support LLW and TRU waste disposition, process building decontamination, and removal of non-essential facilities associated with achieving Interim End State completion at the WVDP. The ICE results indicated that a five year timeframe beginning January, 2005, and concluding December, 2009, would be necessary, assuming annual federal funding of $75M, to accomplish the work necessary to support Interim End State completion as described above.

The ICE was predicated on the following major assumptions:

- The workforce would have been restructured by the end of 2004 to reduce the prime contractor's employee level from approximately 500 to 350 and more closely align the skill mix and levels needed to support future work;

- The West Valley Nuclear Services Company, LLC (WVNSCO) contract would expire at the end of 2004, followed by a subsequent prime contract responsible for managing the scope, schedule and resources needed to achieve Interim End State completion;

- The Waste Management ROD would have been published and disposition pathways open for the WVDP's Class B,C LLW;

- The disposition pathway for WVDP TRU waste would be identified; and

- Implementation of closure activities following publication of the Decommissioning EIS ROD would be deferred until transport of the HLW canisters to a federal repository could be facilitated.

The prime assumptions supporting the ICE were not realized by the end of 2004. Funding available to support WVDP activities was reduced by almost 25% in FY2005 as anticipated and the prime contract with WVNSCO was extended through 2005 to support workforce restructuring, initial ancillary facility removal and off-site disposition of the Class A LLW currently in storage.

Additionally, the Waste Management ROD has not been published due to concerns associated with evaluation determination waste and a defense determination was not approved allowing a disposition pathway for WVDP TRU to be identified and planned for execution.

The five year schedule based on annual flat federal funding of $75M annually did not consider the annual costs needed for maintenance of the WVNSCO pension fund or costs associated with workforce restructuring assumed to be needed at the end of the period when the work and contract is completed.

The current approach to achieving Interim End State completion incorporates the impacts to scope, cost and schedule associated with delayed implementation of workforce restructuring from FY2004, and delay in publication of the Waste Management ROD and identification of a WVDP TRU disposition pathway. The current approach also incorporates the assumed federal liability of maintaining the WVNSCO pension fund.

An update to the 2004 ICE is underway to take into consideration current Project status and assumptions for Interim End State completion. If necessary, a revision to the cost and schedule planning basis for achieving Interim End State completion will be submitted to the EM configuration change control board for consideration.

6.2 Life Cycle Cost Estimate

Based upon the previous ICE and current status of Project activities, the total estimated federal cost to achieve Interim End State completion beginning in 2006 and completing by the end of FY2010 is approximately $370M. The estimated cost of activities needed for achievement of EM completion is approximately $120M. The estimated federal cost to maintain the site, to store the HLW canisters until shipment, and to fund workforce pension costs is approximately $120M, i.e. $6M (2005$$) dollars per year for twenty years. The estimated federal cost to achieve final end state completion including construction of a load-out facility, shipment of the HLW canisters off-site, demolition, removal and/or capping of the Main Process Plant Building, demolition and removal of any other interim storage support facilities, and transition of the site back to the State of New York is approximately $120M (FY2005 dollars).

The following information describes the various EM completion strategies that have been utilized for the WVDP in recent years. The Total Estimated Cost (TEC) values represent planned costs beginning in FY2005 through EM Completion.

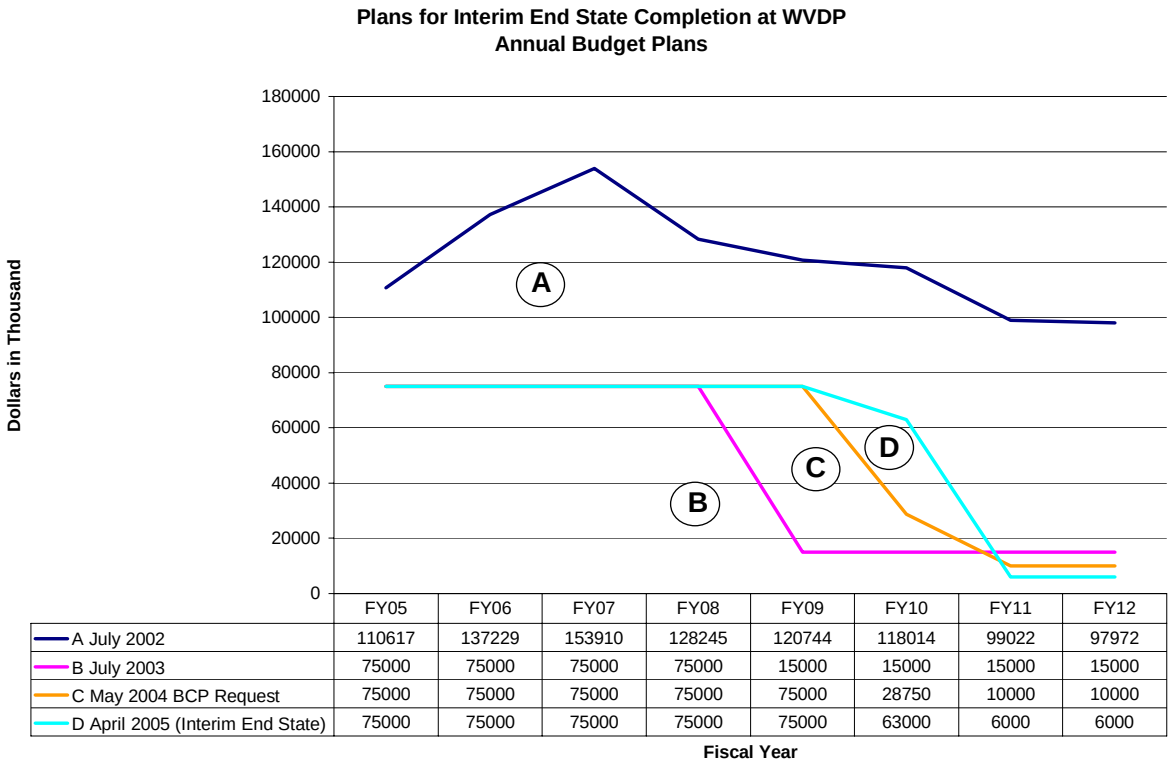
A. July 2002 Plan (TEC $966M / EM Completion FY2012)
    a. Integrated, In-place Closure of Process Building, Vitrification Facility, HLW Tank Farm
    b. HLW Canisters placed in alternative on-site storage
    c. Surveillance and Maintenance (S&M) until canister disposition $5M annually (current year dollars)

B. July 2003 (TEC $300M / EM Completion FY2008)
    a. WVNSCO proposal for Waste Disposition, Non-essential Facility Removal
    b. De-scoped decontamination operations beyond Head End Cells, Product Purification Cell-South
    c. De-scoped alternative HLW canister storage
    d. De-scoped decommissioning - assumed to be NYS Responsibility
    e. S&M until canister disposition $15M annually (current year dollars)

C. May 2004 (TEC $400M / EM Completion 1QFY2010)
    a. B + Process Building Decontamination operations (ICE)
    b. Baseline Change Proposal (BCP) submitted by OH to the Change Control Board to align out-year plans with this basis (BCP tabled due to deferment of out-year decisions beyond FY2006)
    c. S&M until canister disposition $10M annually (current year dollars)

D. April 2005 (TEC $438M / Interim End State Completion FY2010)
    a. C + Pension Liability + Impacts due to Workforce Restructuring / Lack of Waste Management EIS ROD and TRU Disposition Pathway
    b. S&M until canister disposition $6M annually (current year dollars)

The following table illustrates the annual funding profiles supporting the above mentioned strategies.



	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
A July 2002	110617	137229	153910	128245	120744	118014	99022	97972
B July 2003	75000	75000	75000	75000	15000	15000	15000	15000
C May 2004 BCP Request	75000	75000	75000	75000	75000	28750	10000	10000
D April 2005 (Interim End State)	75000	75000	75000	75000	75000	63000	6000	6000

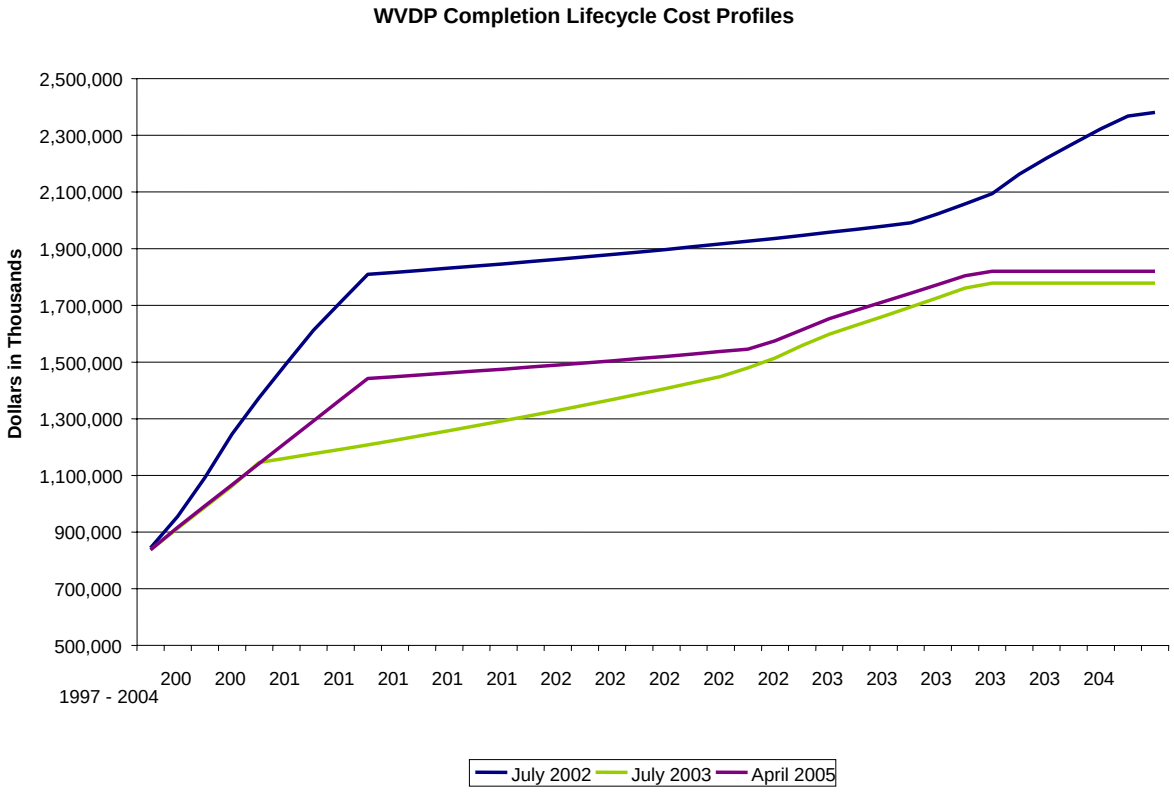
Strategy D for Interim End State Completion FY2010 includes completion of the following work:

- Shipment of all LLW and TRU waste generated by DOE as a result of the HLW solidification project;
- Deactivation, demolishment and removal of all DOE-managed facilities (foundations remain), with the exception of the process building, and any support facilities required for the interim storage of the high-level waste canisters;
- Removal of major components and decontamination of the process building; and
- Configuring utilities and infrastructure to achieve cost effective long-term storage and maintenance of the process building and other facilities, including the HLW tank farm, until off-site transport of the HLW canisters can be facilitated.

The strategy to achieve EM Completion includes implementation of the following additional work following publication of the Decommissioning EIS ROD in 2008:

- Decommissioning of the HLW tank farm (i.e. in-place closure of the HLW tanks [grout, cap] or HLW tank exhumation and off-site disposal);
- Remediation of lagoons, sludge ponds and water treatment systems, as necessary;
- Removal and disposal of facility foundations and contaminated soil, as necessary;
- Installation of erosion controls and environmental monitoring requirements;
- MARSSIM survey and sampling; and
- Implementation of other actions as required by the Decommissioning EIS ROD.

The following graph illustrates the overall comparison between lifecycle cost profiles that have supported the annual environmental liability estimates for the WVDP based upon assumptions and estimates supporting the various EM completion strategies. In general, the overall impact based on the plan to achieve Interim End State completion in FY2010, followed by implementation of activities to achieve EM completion is not significantly different from the lifecycle cost profile currently reflected in the EM Integrated Planning, Accountability and Budgeting System (IPABS) because the near-term investment to complete EM responsibilities reduces long-term surveillance and maintenance costs until the HLW canisters can be transported to a federal repository and final closure actions implemented, allowing the site to be returned to NYS.



6.3 Annual Funding Profile for Interim End State Completion

The estimated out-year costs associated with implementation of this revised plan requires less annual funding support than the profile presented in the original 2002 PMP. The scopes of work associated with disposing project generated LLW and TRU waste, reducing and/or eliminating facilities, systems and/or equipment that DOE put in place no longer needed to support safe site operations, and decontamination of the former SNF reprocessing facility can be completed by the end of FY2010 (Figure 1).
The scope of work associated with closure for the HLW tank farm and other facilities under DOE's responsibility to achieve EM completion will be dependent upon securing adequate funding consistent with needs identified through independent cost estimates and subsequently reviewed and approved contractor baselines.

The current funding profile supporting the WVDP is indicated in the table below (Table 1). Its planning basis was established in 2003 based on different assumptions associated with achieving EM completion at WVDP by the end of FY2008. A BCP was submitted to the EM Change Control Board in May, 2004

to request alignment of WVDP IPABS planning data associated with an updated planning basis at that time, however full alignment of out-year funding was not attained.

Table 1: Current WVDP IPABS Planning Data

	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	TOTAL
PBS OH-WV-0013 Solid Waste Disposition	$ 19.5	$ 19.5	$ 19.5	$ 17.3	$ 0.0	$ 0.0	$ 75.8
PBS OH-WV-0040 Decontamination and Decommis-sioning	$ 57.6	$ 53.9	$ 53.9	$ 0.0	$ 9.3	$ 0.0	$ 174.7
PBS OH-WV-0020 Safeguards and Security	$ 1.8	$ 1.6	$ 1.6	$ 1.0	$ 1.0	$ 1.0	$ 8.0
PBS OH-WV-0014 HLW Canister S&M	$ 0.0	$ 0.0	$ 0.0	$ 0.0	$ 9.0	$ 14.6	$ 23.6
Federal Funding Request Subtotal:	**$ 78.9**	**$ 75.0**	**$ 75.0**	**$ 18.3**	**$ 19.3**	**$ 15.6**	**$ 282.1**
New York State 10% Contribution	$ 8.8	$ 8.3	$ 8.3	$ 2.0	$ 2.1	$ 1.7	$ 31.3
Total WVDP Funding:	**$ 87.7**	**$ 83.3**	**$ 83.3**	**$ 20.3**	**$ 21.4**	**$ 17.3**	**$ 313.4**

The planning basis, consistent with the ICE and modified accordingly to account for changes in initial conditions described above, and the current scope needed to achieve Interim End State completion, is outlined in the following table (Table 2). Information in the following table is being utilized to support FY2007 budget formulation deliverables. It is expected that a Baseline Change Proposal (BCP) will be prepared following FY2007 budget formulation decisions for submission to the EM configuration control board to align the out-year funding profile and environmental liability estimate with the WVDP current planning basis described herein.

Table 2: FY2007 Budget Formulation Planning Basis

	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	TOTAL
PBS OH-WV-0013 Solid Waste Disposition	$ 19.5	$ 19.5	$ 25.0	$ 25.0	$ 20.0	$ 0.0	$ 109.0
PBS OH-WV-0040 Decontamination and Decommis-sioning	$ 57.6	$ 53.9	$ 48.4	$ 48.4	$ 41.4	$ 0.0	$ 249.7
PBS OH-WV-0020 Safeguards and Security	$ 1.8	$ 1.6	$ 1.6	$ 1.6	$ 1.6	$ 0.8	$ 9.0
PBS OH-WV-0014 HLW Canister S&M	$ 0.0	$ 0.0	$ 0.0	$ 0.0	$ 0.0	$ 5.3	$ 5.3
Federal Funding Request Subtotal:	**$ 78.9**	**$ 75.0**	**$ 75.0**	**$ 75.0**	**$ 63.0**	**$ 6.0**	**$ 373.0**
New York State 10% Contribution	$ 8.8	$ 8.3	$ 8.3	$ 8.3	$ 7.0	$ 0.7	$ 41.4
Total WVDP Funding:	**$ 87.7**	**$ 83.3**	**$ 83.3**	**$ 83.3**	**$ 70.0**	**$ 6.7**	**$ 414.4**

6.4 Critical Path for Completion

The activities estimated for achieving Interim End State completion by FY2010 (Figure 1) include LLW and TRU waste disposition, demolition and removal of ancillary Project facilities, decontamination of the main process plant, and demolition of the Remote Handled Waste Facility and Vitrification Facility, environmental monitoring and compliance, general safe site operations, and surveillance and maintenance including safeguards and security.

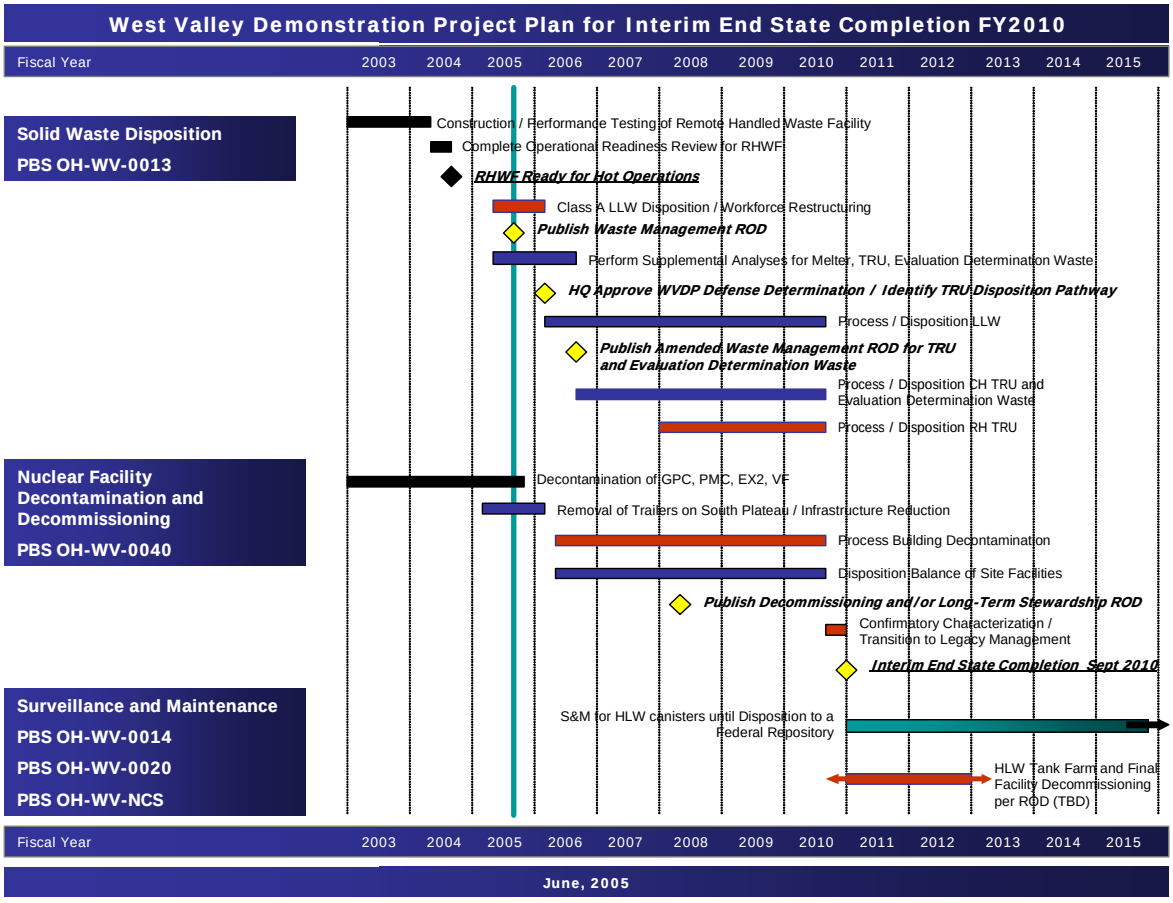
The critical path to achieving Interim End State completion at the WVDP is continued decontamination operations in the former SNF reprocessing facility and final off-site disposal of the resulting waste.

Once the Decommissioning EIS ROD is published in 2008, efforts will proceed to secure funding and implement planning for decommissioning of the HLW tanks [in-place closure or exhumation and off-site disposal]; removal and

disposal of facility foundations and contaminated soil; remediation of the lagoons, sludge ponds and water treatment systems; installation of erosion controls and environmental monitoring requirements; and MARSSIM survey and sampling.

Implementation of closure for the HLW tank farm and other facilities under DOE's responsibility will become critical path following publication of the Decommissioning EIS ROD in order to achieve EM completion. Efforts will include final site survey and possible transfer to another organization for oversight and maintenance for long-term surveillance and monitoring with the exception of process building oversight and maintenance, HLW canister transport, and final decommissioning of the process building consistent with the Decommissioning EIS ROD after the HLW canisters have been shipped off-site. Completion of WVDP Act mandates will be satisfied once WVDP facilities can be returned to the state of New York.

Figure 1


West Valley Demonstration Project Plan for Interim End State Completion FY2010
Fiscal Year
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Solid Waste Disposition
PBS OH-WV-0013
Construction / Performance Testing of Remote Handled Waste Facility
Complete Operational Readiness Review for RHWF
RHWF Ready for Hot Operations
Class A LLW Disposition / Workforce Restructuring
Publish Waste Management ROD
Perform Supplemental Analyses for Melter, TRU, Evaluation Determination Waste
HQ Approve WVDP Defense Determination / Identify TRU Disposition Pathway
Process / Disposition LLW
Publish Amended Waste Management ROD for TRU and Evaluation Determination Waste
Process / Disposition CH TRU and Evaluation Determination Waste
Process / Disposition RH TRU
Nuclear Facility Decontamination and Decommissioning
PBS OH-WV-0040
Decontamination of GPC, PMC, EX2, VF
Removal of Trailers on South Plateau / Infrastructure Reduction
Process Building Decontamination
Disposition Balance of Site Facilities
Publish Decommissioning and/or Long-Term Stewardship ROD
Confirmatory Characterization / Transition to Legacy Management
Interim End State Completion Sept 2010
Surveillance and Maintenance
PBS OH-WV-0014
PBS OH-WV-0020
PBS OH-WV-NCS
S&M for HLW canisters until Disposition to a Federal Repository
HLW Tank Farm and Final Facility Decommissioning per ROD (TBD)
Fiscal Year
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
June, 2005