

Change Number M-34-01-02	Federal Facility Agreement and Consent Order Change Control Form Do not use blue ink. Type or print using black ink.	Date March 27, 2001																																										
Originator P.G. Loscoe, Director, Office of Spent Nuclear Fuels		Phone (509) 376-7465																																										
Class of Change <input type="checkbox"/> I - Signatories <input checked="" type="checkbox"/> II - Executive Manager <input type="checkbox"/> III - Project Manager																																												
Change Title Spent Nuclear Fuel Project - Alternate Fuel Transfer Strategy																																												
Description/Justification of Change The Spent Nuclear Fuel (SNF) Project has recently developed the Alternate Fuel Transfer Strategy (AFTS), based on a proposal from the K East Basin work force. The AFTS eliminates the need for certain Note: Strikeout text indicates text to be deleted; Added text indicates text to be added. Description/Justification of Change continued on Page 2 and Pages 4 through 13.																																												
Impact of Change Impacts to the SNF Project cost and schedule are detailed in the comprehensive plan. A total of 16 existing interim milestones and target dates remain for completion of M-34-00A. This change has the following impact to interim milestones and target dates: 3 are unchanged, 3 are accelerated, 3 are delayed, 5 are deleted, and 2 involve text changes, without impact to completion dates. Additionally, 2 new interim milestones and 3 new target dates are being added to address new work scope. Two existing interim milestones are being changed to target dates. The detailed changes are shown on pages 4 through 13. This change does not impact TPA milestone M-34-00A, nor does it impact the total project cost for the SNF Project. The comprehensive plan, provided separately to EPA staff for review, identifies changes to the budget for each fiscal year. As work progresses, there may be opportunities to reduce total project cost and to complete TPA milestone M-34-00A ahead of schedule. Impact of Change continued on Page 3.																																												
Affected Documents 1. Hanford Federal Facility Agreement and Consent Order, Appendix D, as amended. 2. SNF Project Baseline Schedule.		EDMC 																																										
Approvals <table border="0" style="width: 100%;"> <tr> <td style="width: 30%;"><i>Robert M. Keigel for</i></td> <td style="width: 20%;">P.G. Loscoe</td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> </tr> <tr> <td><i>W. Wade Ballard</i></td> <td>W.W. Ballard</td> <td><u>3/27/01</u></td> <td><input checked="" type="checkbox"/> Approved</td> <td><input type="checkbox"/> Disapproved</td> <td></td> </tr> <tr> <td>DOE</td> <td></td> <td>Date</td> <td></td> <td></td> <td></td> </tr> <tr> <td><i>Douglas R. Shuman</i></td> <td></td> <td><u>3/27/01</u></td> <td><input checked="" type="checkbox"/> Approved</td> <td><input type="checkbox"/> Disapproved</td> <td></td> </tr> <tr> <td>EPA</td> <td></td> <td>Date</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>Signature Not Required</td> <td></td> <td><input type="checkbox"/> Approved</td> <td><input type="checkbox"/> Disapproved</td> <td></td> </tr> <tr> <td>Ecology</td> <td></td> <td>Date</td> <td></td> <td></td> <td></td> </tr> </table>			<i>Robert M. Keigel for</i>	P.G. Loscoe					<i>W. Wade Ballard</i>	W.W. Ballard	<u>3/27/01</u>	<input checked="" type="checkbox"/> Approved	<input type="checkbox"/> Disapproved		DOE		Date				<i>Douglas R. Shuman</i>		<u>3/27/01</u>	<input checked="" type="checkbox"/> Approved	<input type="checkbox"/> Disapproved		EPA		Date					Signature Not Required		<input type="checkbox"/> Approved	<input type="checkbox"/> Disapproved		Ecology		Date			
<i>Robert M. Keigel for</i>	P.G. Loscoe																																											
<i>W. Wade Ballard</i>	W.W. Ballard	<u>3/27/01</u>	<input checked="" type="checkbox"/> Approved	<input type="checkbox"/> Disapproved																																								
DOE		Date																																										
<i>Douglas R. Shuman</i>		<u>3/27/01</u>	<input checked="" type="checkbox"/> Approved	<input type="checkbox"/> Disapproved																																								
EPA		Date																																										
	Signature Not Required		<input type="checkbox"/> Approved	<input type="checkbox"/> Disapproved																																								
Ecology		Date																																										

construction activities in the K East Basin that would otherwise be necessary to retrieve, clean, package, and remove spent nuclear fuel from the basin and transport it directly to the Cold Vacuum Drying Facility (CVDF) in multi-canister overpacks (MCOs). The AFTS requires the K East Basin fuel to be retrieved and packaged in shipping casks that are transported to the K West Basin. The existing K West Basin facilities will then be used to retrieve, clean, package and remove the fuel and transport it to the CVDF.

The AFTS strategy accelerates the removal of spent nuclear fuel and water from the K East Basin. While there are similar extensions to removal activities from the KW Basin, it is the K East Basin that has been of primary concern to DOE and the regulatory agencies. Under the current baseline, fuel movement was initiated in the K West Basin so that the Project could gain experience in a less contaminated environment. The parties now believe that it is appropriate to move to a strategy that will accelerate the removal of contamination from the K East Basin, which has a higher environmental risk. This AFTS strategy includes several changes to reduce the overall environmental risk at the K East Basin. The removal of spent nuclear fuel from the K East Basin is accelerated by 1 month, thereby reducing the source term. Additional environmental protection will be afforded by initiation of sludge containerization at the start of fuel removal from the K East Basin. The final part of the risk reduction will be realized through the acceleration of water removal from the K East Basin by 13 months.

The SNF Project is simultaneously taking actions in addition to the AFTS that will improve the rate of spent nuclear fuel removal from the K Basins and increase confidence that the current schedule commitments for fuel removal will be met. Examples of these actions include the addition of manual fuel loading capability in the K West Basin and a review to determine whether completion of Bay 3 at the CVDF is required. The AFTS and the other fuel removal rate improvement actions are integrated and are both necessary to achieve the schedule commitments.

The following is a list of each remaining Tri-Party Agreement milestone and target date for the M-34 series that shows the impact of this change request. The detailed description of each milestone and target date change is provided on pages 4 through 13.

Impact to Milestone or Target Date	Milestone or Target Date	Summary Description
Unchanged (No Impact)	M-34-08	Initiate KE sludge removal
	M-34-10	Complete all basin sludge removal
	M-34-09-T01	Complete rack and canister removal
	M-34-00A (Major)	Complete removal of fuel, sludge, water, and debris from K Basins
Accelerated	M-34-23	Initiate KE water removal
	M-34-24	Complete KE water removal
	M-34-17	Initiate KE fuel removal
Delayed	M-34-12-T01*	Complete KE IWTS (added scope)
	M-34-21-T01*	Initiate KW water removal
	M-34-22	Complete KW water removal
Deleted	M-34-14B-T01	Complete KE cask facility mods
	M-34-13B-T01	Complete KE FRS
	M-34-19	Initiate removal of contam. water
	M-34-20	Complete removal of contam. water
	M-34-05-T01	Annual Debris Report
Text Changes Only (no Date Changes)	M-34-18A	Complete KW fuel removal
	M-34-18B	Complete K Basin fuel removal
New	M-34-25-T01	Complete KE to KW fuel transfer
	M-34-26-T01	Approve Constr. AFTS facility mods
	M-34-27-T01	Complete removal of 244 MCOs
	M-34-28	Complete removal of 311 MCOs
	M-34-29	Complete AFTS facility mods

* This change request changes the interim milestone to a target date.

Number	Milestone Description and Rationale for Change	Due Date
<p>M-34-14B-T01</p>	<p>Target Date Description: Complete K East Cask Facility modifications. The K East Cask System Facility modifications shall be constructed, installed, and acceptance test(s) completed.</p>	<p>Old: 02/28/2002 New: Delete</p>
	<p>Rationale for Change: This change deletes the existing target date. The approach under AFTS will not require modification of the Cask System in the K East Facility. A new interim milestone for completion and readiness of the AFTS transport cask system at the K East and K West Basins is included below (M-34-29).</p>	
<p>M-34-05-T01</p>	<p>Target Date Description: Submit report on quantities, character, and management of K Basins debris. Submit DOE approved annual report on quantities, character, and management (e.g., segregation and management subsequent to removal) of K Basins debris to Ecology and EPA. The final report of this series shall be the one occurring one year after completion of milestone M-34-00A.</p>	<p>Old: 05/31/1999 05/31/2000 05/31/2001 05/31/2002 05/31/2003 05/31/2004 05/31/2005 05/31/2006 05/31/2007 New: Delete</p>
	<p>Rationale for Change: Formal debris reports have been transmitted annually from DOE to Ecology and EPA to meet this target date. Debris from the K Basins is now removed, packaged, and transported to the Environmental Restoration Disposal Facility (ERDF), in accordance with a Memorandum of Understanding (MOU) between FH and Bechtel Hanford, Inc., (BHI). The SNF Project has developed an extensive data quality objective and sampling and analysis plan that provide significant details on the debris to be removed from the K Basins. The SNF Project is also required to provide long-range planning and waste projections to BHI, in accordance with the MOU, for future waste that will be disposed at the ERDF. This information makes the need for a formal annual report on K Basin debris unnecessary and, therefore, this target date is being deleted as a future requirement.</p>	

Number	Milestone Description and Rationale for Change	Due Date
M-34-12-T01	<p>Target Date Description: Complete construction of K East Basin Integrated Water Treatment Sludge and Water System to support spent nuclear fuel removal. The K East Basin Integrated Water Treatment System shall be constructed, installed, and acceptance tests(s) completed. The K East Basin Sludge and Water System shall be constructed and installed and DOE shall concur that all acceptance tests have been completed for turnover to operations, by signing the Construction Completion Document, Section IIA (or equivalent form), with either no exceptions or with only minor exceptions, which do not affect the functionality of the system.</p> <p>Rationale for Change: M-34-12 was previously an interim milestone and is being changed to a target date with this change request. The K East Basin Integrated Water Treatment System (IWTS) and the sludge retrieval and loadout systems were previously managed as separate sub-projects, with completion dates of 03/31/2002 and 09/30/2002, respectively. These sub-projects are now being integrated into a single sub-project, with a construction completion date of 02/28/2002, which represents a 1-month acceleration for construction of the sludge retrieval system and a 7-month acceleration for construction the IWTS, compared to the baseline schedule. However, the target date text is being revised and expanded to include operational testing, which adds time to the schedule. The revised AFTS schedule shows operational testing to be complete by 09/30/2002. RL will sign the Construction Completion Document, Section IIA, as concurrence that all testing is complete.</p> <p>Note: "Sludge retrieval" refers to the process of containerizing sludge in the basin. "Sludge removal" or "sludge loadout" refers to actual removal of sludge from the basin and is still covered by M-34-08, due on 12/31/2002.</p>	<p>Old: 03/31/2002</p> <p>New: 09/30/2002</p>
M-34-13B-T01	<p>Target Date Description: Complete construction and installation of K East Basin Spent Nuclear Fuel Retrieval System. The K East Basin Spent Nuclear Fuel Retrieval System shall be constructed, installed, and acceptance test(s) completed.</p> <p>Rationale for Change: This change deletes the existing target date. The approach under AFTS will not require construction of the Fuel Retrieval System in the K East Facility. A new interim milestone for completion and readiness of the AFTS facility modifications at the K East and K West Basins is included below (M-34-29).</p>	<p>Old: 03/31/2002</p> <p>New: Delete</p>

Number	Milestone Description and Rationale for Change	Due Date
M-34-17	<p>Milestone Description: Initiate Removal of K East Basin Spent Nuclear Fuel. The K East Basin spent nuclear fuel retrieval system shall begin retrieving, cleaning, packaging and removing spent nuclear fuel for transport to the Cold Vacuum Drying Facility. Initiate removal of spent nuclear fuel from the K East Basin and transport to the K West Basin. Also, initiate collection and containerization of K East Basin sludge from canisters, floor, and weasel pit.</p> <p>Rationale for Change: This interim milestone is accelerated by 1 month. This will provide time for transfer of fuel to begin before all K West fuel has been removed. This will ensure that the K West Basin fuel retrieval system (FRS) will not be limited by an insufficient quantity of fuel transferred from the K East Basin. The K West Basin FRS capacity will peak at approximately 10 canisters of fuel per day, with the assumption of 24 hours per day, 7 days per week operation. The K East to K West transfer system is designed to transfer approximately 10 canisters per day, based on two shifts per day, 5 days per week. In the event that the planned K West FRS throughput exceeds 10 canisters per day or if the K East to K West transfer is less than 10 canisters per day, an additional shift can be added to the transfer system to ensure that it can exceed the throughput of the K West FRS. All parties understand that the earliest possible fuel transfer from the K East Basin to the K West Basin provides the best opportunity for blending scrap from K East with intact fuel in K West and optimizing multi-canister overpack loading.</p> <p>In addition to acceleration of the due date, the text of the milestone is revised, as noted above. The existing text indicates the fuel would be transported directly to the Cold Vacuum Drying Facility. Under the AFTS, the fuel will be transported to the K West Basin and then loaded into multi-canister overpacks for transport to the Cold Vacuum Drying Facility. The process of vacuuming sludge from fuel canisters prior to transfer to K West Basin is an integral part of the AFTS process, so this activity is now tied to the milestone completion criteria. The early collection and containerization of the K East Basin sludge represents a significant step in reducing the source term in contact with basin water.</p>	Old: 12/31/2002 New: 11/30/2002
M-34-18A	<p>Milestone Description: Complete Removal of all 190 Multi-Canister Overpacks of Spent Nuclear Fuel from the K West Basin Spent Nuclear Fuel. This interim milestone will be complete when all spent nuclear fuel has been removed. It is understood that additional fuel fragments may be discovered during removal of the sludge.</p> <p>This interim milestone will be complete when 190 multi-canister overpacks of spent nuclear fuel have been removed from the K West Basin and transported to the Cold Vacuum Drying Facility.</p>	Old: 12/31/2002 New: 12/31/2002 (no date change)

Number	Milestone Description and Rationale for Change	Due Date
	<p>Rationale for Change:</p> <p>Under the AFTS, spent nuclear fuel from the K East Basin will be entering the K West Basin before all the K West fuel is loaded into MCOs and removed. The original milestone required removal of all the fuel in the K West Basin by 12/31/2002. This revision allows for removal of an amount of fuel that is equivalent to the amount of fuel that was stored in the K West Basin prior to 12/07/2000. There are two ways to demonstrate this equivalency, as shown below. Option 2 was selected, as it is a more precise calculation. Option 2 is a slightly more conservative approach than Option 1. Both options are described to show that there is only a small difference in the answer.</p> <p>Option 1 (based on weight) -- Forty-five (45) percent of the spent nuclear fuel in both the K East and K West Basins was stored in the K West Basin prior to the first multi-canister overpack (MCO) shipment on 12/07/2000. This percentage is based on the calculations performed by Hanford Site Safeguards and Securities and is expressed as metric tons of heavy metal (MTHM). Heavy metal consists of the calculated weight of plutonium, neptunium, and uranium, but does not include other metals (zirconium, iron, etc.). The weight of heavy metal in K West Basin was 957.115 MTHM and the weight of heavy metal in the K East Basin was 1,148.517 MTHM, prior to 12/07/2000. This weight ratio indicates that 45 percent of the fuel was in the K West Basin and 55 percent was in the K East Basin. A total of 400 MCOs are planned for removal of all fuel (including scrap) from both basins. Therefore, 180 MCOs would be required to remove the equivalent amount of fuel that was present in the K West Basin prior to 12/07/2000. This number is derived as follows: $(400 \text{ MCOs}) \times (45\%) = 180 \text{ MCOs}$.</p> <p>Option 2 (based on number of canisters) – Prior to 12/07/2000, K West Basin contained 3,842 canisters. Based on K West Basin experience to date, we are predicting that every fifth MCO will contain a scrap basket. Each MCO contains 6 baskets (either all fuel baskets or 5 fuel baskets and 1 scrap basket).</p> <p>Calculations: MCO with 0 scrap baskets = 288 assemblies or 20.57 canisters MCO with 1 scrap basket = 240 assemblies + 2 canisters for scrap = 19.14 canisters If all MCOs had 0 scrap baskets: $3,842 \text{ canisters} / 20.57 \text{ canisters/MCO} = 187 \text{ MCOs}$ If all MCOs with 1 scrap basket: $3,842 \text{ canisters} / 19.14 \text{ canisters/MCO} = 201 \text{ MCOs}$ For 4 MCOs with 0 scrap baskets: $(187 \text{ MCOs}) \times (0.8) = 150 \text{ MCOs}$ $(150 \text{ MCOs}) \times (20.57 \text{ canisters/MCO}) = 3,085 \text{ canisters}$ For 1 MCO with 1 scrap basket: $(201 \text{ MCOs}) \times (0.2) = 40 \text{ MCOs}$ $(40 \text{ MCOs}) \times (19.14 \text{ canisters/MCO}) = 765 \text{ canisters}$ Total canisters removed: $3,085 \text{ canisters} + 765 \text{ canisters} = 3,850 \text{ canisters}$. Total MCOs required: $150 \text{ MCOs} + 40 \text{ MCOs} = 190 \text{ MCOs}$</p> <p>The K East fuel has a higher percentage of broken fuel and scrap than fuel in the K West basin. Therefore, blending K East fuel with K West fuel has the advantage of allowing more scrap to be blended into the MCOs. This allows the opportunity and operational flexibility to optimize the amount of scrap placed in each MCO. If the K East Basin fuel is processed totally separate from K West Basin fuel, the potential problem of having too much scrap per MCO from the K East Basin exists.</p> <p>M-34-18A is being revised, with the understanding that all fuel will be removed from the K West Basin and the K East Basin by 07/31/2004 (revised M-34-18B). This revision to M-34-18A maintains the requirement to demonstrate substantial, interim progress toward the completion of M-34-18B.</p>	

Number	Milestone Description and Rationale for Change	Due Date
M-34-08	<p>Milestone Description: Initiate full scale K East Basin sludge removal. DOE shall complete and approve K East sludge removal definitive design documents, all associated construction, and readiness assessments, and initiate removal of sludge from the Basin.</p> <p>Rationale for Change: There is no change to this interim milestone.</p>	<p>Old: 12/31/2002</p> <p>New: 12/31/2002 (no date change)</p>
M-34-19	<p>Milestone Description: Initiate removal, replacement, and treatment of contaminated K Basins water. Initiate removal, replacement, and treatment of contaminated K Basins water where tritium concentrations exceed 300,000 pCi/L.</p> <p>Rationale for Change: This existing milestone was established primarily to improve the K East Basin water quality (typically about 3 million pCi/L tritium) prior to final removal of the water for treatment at the 200 Area Effluent Treatment Facility. The AFTS, coupled with other fuel rate improvement initiatives, includes several features that impact the need for this milestone. For example, scheduled AFTS activities result in the following:</p> <ul style="list-style-type: none"> • Acceleration of the final removal of K East Basin water by 13 months, from 10/31/2006 to 09/30/2005 (see acceleration to M-34-23 and M-34-24). This accelerated date now precedes the completion date for M-34-20, which requires the removal, replacement, and treatment of contaminated water by 10/31/2005; • KE Basin fuel removal is initiated 1 month earlier, from 12/31/2002 to 11/30/2002 (see revised M-34-17), thereby reducing source term well in advance of 4/30/2004 • Initiation of containerization of sludge (canister, floor, and pit) is now tied to the beginning of K East Basin fuel removal by 11/30/2002 (see revised M-34-17), thereby reducing source term in contact with the basin water well in advance of 04/30/2004; and, • Current tritium concentration in K West Basin is already significantly lower than 300,000 pCi/L tritium (in the range of 65,000 pCi/L), so even with an expected increase during operations, it is doubtful that the tritium concentration in the K West Basin would exceed 300,000 pCi/L. <p>The changes in various scheduled activities under the AFTS eliminate the need for this milestone.</p>	<p>Old: 04/30/2004</p> <p>New: Delete</p>
M-34-18B	<p>Milestone Description: Complete Removal of all K East-Basin Spent Nuclear Fuel. This interim milestone will be complete when all spent nuclear fuel has been removed from both the K West Basin and the K East Basin and has been transported to the Cold Vacuum Drying Facility. It is understood that additional fuel fragments may be discovered during removal of the sludge.</p> <p>Rationale for Change: This change does not impact the milestone due date. The text is revised to indicate that the milestone pertains to all spent nuclear fuel from both basins, rather than just the K East Basin.</p>	<p>Old: 07/31/2004</p> <p>New: 07/31/2004 (no date change)</p>

Number	Milestone Description and Rationale for Change	Due Date
M-34-10	<p>Milestone Description: Complete sludge removal from K Basins. Fuel processing in K Basins shall be complete, including the capture of fuel canister sludge in the integrated water treatment system and removal of visible floor and pit sludge.</p> <p>Rationale for Change: There is no change to this Milestone.</p>	<p>Old: 08/31/2004</p> <p>New: 08/31/2004 (no date change)</p>
M-34-21-T01	<p>Target Date Description: Initiate full scale K West Basin water removal.</p> <p>Rationale for Change: M-34-21 was previously an interim milestone and is being changed to a target date with this change request. This change extends the existing due date by 13 months. Spent nuclear fuel from the K East Basin will be transferred to the K West Basin under the AFTS, so the K West Basin water removal can not begin until all the K East fuel is cleaned, loaded into multi-canister overpacks, and removed from the K West Basin.</p>	<p>Old: 09/30/2004</p> <p>New: 09/30/2004</p>
M-34-09-T01	<p>Target Date Description: Complete K Basins rack and canister removal. All fuel storage racks and empty fuel canisters shall be removed from the K Basins.</p> <p>Rationale for Change: There is no change to this Target Date.</p>	<p>Old: 01/31/2005</p> <p>New: 01/31/2005 (no date change)</p>
M-34-22	<p>Milestone Description: Complete K West Basin water removal.</p> <p>Rationale for Change: This change extends the existing milestone due date by 11 months. Spent nuclear fuel from the K East Basin will be transferred to the K West Basin under the AFTS, so the K West Basin water removal can not begin until all the K West fuel and K East fuel is cleaned, loaded into multi-canister overpacks, and removed from the K West Basin.</p>	<p>Old: 09/30/2005</p> <p>New: 09/30/2005</p>
M-34-23	<p>Milestone Description: Initiate full scale K East Basin water removal.</p> <p>Rationale for Change: Under the AFTS, completion of K East Basin fuel removal will be accelerated to 05/31/2004 (see new M-34-25-T01). K East Basin sludge removal will remain on schedule for 08/31/2004 (see M-34-10). The SNF Project will begin to containerize K East Basin sludge as fuel is transferred to K West Basin, beginning 11/30/2002 (see revised M-34-17) in an effort to reduce source term contact with basin water and to reduce environmental risk. K East Basin rack removal will be completed by 10/31/2004. This will allow initiation of full-scale water removal to be accelerated by 13 months. The significant source term (fuel and sludge) will be gone by the time water removal begins.</p>	<p>Old: 10/31/2005</p> <p>New: 09/30/2004</p>

Number	Milestone Description and Rationale for Change	Due Date
M-34-20	<p>Milestone Description: Complete removal, replacement, and treatment of contaminated K Basins water. Complete removal, replacement, and treatment of contaminated K Basins water such that the tritium concentration in the basin is decreased and is maintained at or below 300,000 pCi/L. This milestone could be satisfied by removing all water.</p> <p>Rationale for Change: M-34-19, which requires the initiation of the removal, replacement, and treatment of K Basin water that is contaminated with greater than 300,000 pCi/L, is being deleted (see discussion under revised M-34-19). The primary purpose for including this activity in the 1998 baseline schedule was to address the more highly contaminated water in the K East Basin. Revised M-34-24 now accelerates the removal of the K East Basin water by 13 months, to 09/30/2005, so the basin water will now be removed one month before the M-34-20 due date. As with M-34-19, the need for this milestone has been eliminated through the various accelerated activities made possible by the AFTS.</p>	<p>Old: 10/31/2005</p> <p>New: Delete</p>
M-34-24	<p>Milestone Description: Complete K East Basin water removal.</p> <p>Rationale for Change: This change accelerates the existing milestone due date by 13 months. The water removal still requires a year to complete, but it is scheduled to begin a year earlier. (See discussion under revised M-34-23.)</p>	<p>Old: 10/31/2006</p> <p>New: 09/30/2005</p>
M-34-25-T01 (NEW Target Date)	<p>NEW Target Date Description: Complete Transfer of K East Basin Spent Nuclear Fuel to the K West Basin. This target date will be complete when all spent nuclear fuel has been removed from the K East Basin and has been transported into the K West Basin. It is understood that additional fuel fragments may be discovered during the subsequent removal of the sludge.</p> <p>Rationale for Addition: Spent nuclear fuel removal from both K Basins and transport to the Cold Vacuum Drying Facility is addressed by M-34-18B. This new target date addresses completion of the transfer of K East Basin spent nuclear fuel to the K West Basin to ensure that M-34-18B can be met.</p>	<p>Old: N/A</p> <p>New: 05/31/2005</p>

Number	Milestone Description and Rationale for Change	Due Date
<p>M-34-26-T01</p> <p>(NEW Target Date)</p>	<p>NEW Target Date Description: Approve Start of Construction for the K East Basin and K West Basin facility modifications for Alternate Fuel Transfer Strategy cask transportation system. This target date shall be complete when DOE signs the Critical Decision 3, Approve Start of Construction. The Preliminary Documented Safety Analysis, as required by 10 CFR Part 830, Section 830.205, shall be complete and approved by DOE. Additionally, the design report(s) for the Cask Transport System shall be complete. The design report(s) scope shall include all components and modifications necessary to facilitate transfer of SNF from KE into KW. It is understood that preparatory work such as debris removal and other site preparation activities may be initiated prior to the start of construction approval.</p> <p>Rationale for Addition: This new target date requires that the appropriate design and safety analysis to support construction is completed on a timely basis to ensure that completion of construction can be achieved in order to initiate fuel transfer from the K East Basin to the K West Basin in accordance with revised M-34-17.</p>	<p>Old: N/A</p> <p>New: 09/30/2001</p>
<p>M-34-29</p> <p>(NEW Interim Milestone)</p>	<p>NEW Milestone Description: Complete K East Basin and K West Basin facility modifications for Alternate Fuel Transfer Strategy cask transportation system. This interim milestone shall be complete when all modifications to support transfer of spent nuclear fuel from K East Basin to K West Basin are complete. All modifications shall be constructed and installed and all construction acceptance tests (CATs) shall be completed. The Construction Completion Document, Section IB shall be signed with either no exceptions or with only minor exceptions, which do not affect the functionality of the system.</p> <p>Rationale for Addition: This new interim milestone requires that construction necessary to support the initiation of fuel transfer from the K East Basin to the K West Basin will be completed to support revised M-34-17.</p>	<p>Old: N/A</p> <p>New: 03/31/2002</p>

Number	Milestone Description and Rationale for Change	Due Date
<p>M-34-27-T01</p> <p>(NEW Target Date)</p>	<p>NEW Target Date Description: Complete Removal of 244 Multi-Canister Overpacks of Spent Nuclear Fuel from the K West Basin. A cumulative total of 244 multi-canister overpacks of spent nuclear fuel must have been transported from the K West Basin to the Cold Vacuum Drying Facility.</p> <p>Rationale for Addition: This new target date reflects a commitment to maintain substantive progress toward the goal of removing all spent nuclear fuel from both the K West and K East Basins. A total of 400 MCOs will be required to remove all the fuel (including scrap) from both basins. The first 190 MCOs will be removed from the K West Basin by 12/31/2002 (see revised M-34-18A). This new target date commits to removal of an additional 54 MCOs by 05/31/2003, for a cumulative total of 244 MCOs removed.</p> <p>By 12/31/2002 (due date for M-34-18A), the SNF Project will have been operating at full production capacity for some time. Therefore, the number of MCOs to be removed each month between 12/31/2002 and 07/31/2004 is a derived simply by dividing the 210 MCOs yet to be removed (400 - 190 = 210 remaining) by the number of months available (19 months between 12/31/2002 and 07/31/2004). The number of MCOs per month was then applied to the 5-month period between 12/31/2002 and 05/31/2003, with consideration given to a planned maintenance outage for two weeks each quarter.</p> <p>This new target date serves as a useful tool to track progress toward completion of M-34-18B, which requires removal of all fuel from both basins by 07/31/2004.</p>	<p>Old: N/A</p> <p>New: 05/31/2003</p>
<p>M-34-28</p> <p>(NEW Interim Milestone)</p>	<p>NEW Milestone Description: Complete Removal of 311 Multi-Canister Overpacks of Spent Nuclear Fuel from the K West Basin. A cumulative total of 311 multi-canister overpacks of spent nuclear fuel must have been transported from the K West Basin to the Cold Vacuum Drying Facility.</p> <p>Rationale for Addition: This new interim milestone reflects a commitment to maintain substantive progress toward the goal of removing all spent nuclear fuel from both the K West and K East Basins. A total of 400 MCOs will be required to remove all the fuel (including scrap) from both basins. The first 190 MCOs will be removed from the K West Basin by 12/31/2002 (see revised M-34-18A) and another 54 MCOs will be removed by 05/31/2003 (see new target date M-34-27-T01) for a cumulative total of 244 MCOs removed.</p> <p>By 12/31/2002 (due date for M-34-18A), the SNF Project will have been operating at full production capacity for some time. Therefore, the number of MCOs to be removed each month between 12/31/2002 and 07/31/2004 is a derived simply by dividing the 210 MCOs yet to be removed (400 - 190 = 210 remaining) by the number of months available (19 months between 12/31/2002 and 07/31/2004). The number of MCOs per month was then applied to the 6-month period between 05/31/2003 and 11/30/2003, with consideration given to a planned maintenance outage for two weeks each quarter. This new interim milestone commits to removal of an additional 67 MCOs by 12/31/2003, for a cumulative total of 311 MCOs removed. Note: One month was added to the milestone schedule (11/30/2003 to 12/31/2003) to provide for operational flexibility and unplanned events during fuel removal.</p> <p>This new milestone will be used to track progress toward completion of another interim milestone (M-34-18B), which requires removal of all fuel from both basins by 07/31/2004.</p>	<p>Old: N/A</p> <p>New: 12/31/2003</p>

Number	Milestone Description and Rationale for Change	Due Date
M-34-00A (Major Milestone)	Major Milestone Description: Complete removal of spent nuclear fuel, sludge, debris, and water at DOE's K Basins.	Old: 07/31/2007 New: 07/31/2007 (no date change)
	Rationale for Change: There is no change to the Major Milestone.	