

Meeting Minutes

March 27th, 2001

Inter-Agency Management Integration Team (IAMIT)

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Department of Ecology
NWP-Kennewick

Approval: Michael A. Wilson (B5-18)
Chairperson
Ecology IAMIT Representative

Date: 6/7/01

Approval: William W. (Wade) Ballard (A5-12)
RL IAMIT Representative

Date: 6/14/01

Approval: Douglas R. Sherwood (B5-01)
EPA IAMIT Representative

Date: 6/29/01

Minutes Prepared by:

Approval: Deborah F. Iwatate (A1-14)
Fluor Hanford, Inc.

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EDMC

Ballard, W.	RL	A5-12 *	Morrison, R. D.	FH	A1-14 *
Blazek, M. L.	OOE	*	Murphy-Fitch, Eileen	FH	A1-14 *
Bond, R.	Ecology	B5-18	Piippo, R. E.	FH	A1-14 *
Burandt, M. E.	ORP	H6-60 *	Rasmussen, J. E.	ORP	H6-60
Clark, C. E.	RL	A5-15 *	Riess, M. J.	CHG	A1-14
Cusack, L.	Ecology	B5-18 *	Rodriguez, H. M.	RL	A5-15 *
Gay, R.	CTUIR	*	Schlender, M. H.	RL	A7-50 *
Hales, J. W.	FH	A1-14 *	Sherwood, D. R.	EPA	B5-01 *
Hebdon, J. B.	RL	A5-58	Skinnarland, E. R.	Ecology	B5-18
Hedges, J.	Ecology	B5-18	Sobotta, P.	NP	*
Hertzel, J. S.	FH	A1-14 *	Teimouri, A. E.	RL	A5-15 *
Hiegel, R. M.	RL	A4-79	Van Leuven, D. B.	FH	H5-20
Hopkins, A. M.	FH	H5-24	Winterhalder, J. A.	FH	A1-14
Iwatate, D. F.	FH	A1-14 *	Wilson, M. A.	Ecology	B5-18 *
Jamison, F.	Ecology	B5-18	Yerxa, J. K.	RL	A5-15
Jim, R.	CTBYN	*	Administrative Record	EDMC	H6-08 *

* w/Attachments

File: IAMIT Minutes.MAR2001.doc

SPENT NUCLEAR FUEL ALTERNATIVE FUEL TRANSFER CHANGE REQUEST APPROVAL

(D. Sherwood, P. Loscoe, W. Ballard, M. Wilson)

Signing of change request M-34-01-02 *Spent Nuclear Fuel Project - Alternate Fuel Transfer Strategy*. (Copy provided as Attachment 1)

DS - summarized the changes that are going to be made to the SNF project (handout provides summary.) Dates/milestone(s) deleted, moved, changed. Noted that the date for overall completion of the project does NOT change. Getting the sludge, waste, and water out of East Basin will be somewhat earlier. All the fuel is moving out of East, into West, and the West milestones are therefore somewhat delayed.

EPA has made calls to the HAB regarding these changes... basically saying that the change was needed and that it was proceeding. Received support from the HAB on this action.

Noted that additional milestones were prepared (alternate fuel transfer operations and a progress milestone at about 3/4 completion.)

There are a few milestones that are, literally "on top" of each other... these are the incentivized milestones (and are consistent with the milestones that DOE has with the contractor(s)).

PLUTONIUM FINISHING PLANT NEGOTIATIONS

(D. Sherwood, P. Knollmeyer, W. Ballard, M. Wilson)

AH Essentially the task is to take the ash out of the current vault(s) and vault-like rooms, establishing records/tracking, re-package, and transfer to WIPP via CWC.

LC Issues regarding the operating records (how they are performed now vs under RCRA.) The differences are identified and addressed in the change request, e.g., labeling and inspections.

LC Summarized the Ecology concerns and recommendations - mostly looking for information regarding any differences in handling regarding RCRA requirements, and how these differences are addressed.

AH Group focused in on the error regarding inspections, "no LESS frequently than monthly". Making sure that the requirements are all included and combined.

- "Aisle spacing", and the constraints that were present, were discussed. Aisle spacing will be consistent with criticality safety requirements [and may not specifically match up with the RCRA requirements]. The inconsistency with RCRA on this item was written into the change request.

- Adjustments were made to the change request based on the discussions. Ecology will forward [CR] to J. Shorin for review before they sign off.
-

M-91-12 DISPUTE RESOLUTION

(D. Sherwood, C. Clark, W. Ballard, M. Wilson/L. Cusack)

Signing of change request M-91-01-02 *Modification of HFFACO Requirements for the Thermal Treatment of Currently Stored and Newly Generated Contact Handled LLMW (Interim Milestone M-91-12)*. (Copy provided as Attachment 2)

- LC Declared success with resolution of this item. Summarized the status and ongoing task. Redefined goals and terms of this milestone.
-

TPA NEGOTIATIONS GENERAL DISCUSSION

(D. Sherwood, C. Clark, W. Ballard, M. Wilson)

- WB Summarized the proposed path forward. Will provide the draft proposal to EPA and Ecology for review.
- DS Felt that EPA and Ecology were at about the same point... thinking through the possible process that could be applied. Noted that the budget information must be known before starting any discussions/negotiations (expected in June.) Felt that there had been some good progress on thinking through the possible topics for renegotiation.
- WB No priorities had been established yet... should be prepared together (regulators with DOE). Noted that 1995 was the last time that a significant review/revision was prepared.
- DS The Record Of Decision for FFTF had to be signed also, before starting such talks. They are starting to put together their first list of top topics.
- MW Suggested that WB continues to work the process and schedule further and get it ready to go [Then get back with Ecology/EPA.]
-

ENVIRONMENTAL ISSUES MANAGEMENT STATUS DISCUSSION

(D. Sherwood, H. Rodriguez, M. Wilson)

Attachment 3

- HR Discussed changes made to the layout and grouping of the issues.
- DS Comments on the heading regarding the decision-making, vs the leads for the IAMIT. Noted that the IAMIT members were the main focus of decisions, but that there were NO

IAMIT members cited in the "decision-making" column of the list. Decision-making should be made at the level that the work is being performed. Recommended a change in the heading for the decision-making column.

- HR Suggested a revision that seemed to be acceptable: labeling the column as "Senior Executive Level", and citing the appropriate individuals. DOE leads would (still) be included in the listing.
- HR Also brought up the question about how often the list should be brought before the IAMIT. Recommendations made about frequency. Every other month may be better, or just whenever needed, by consensus.
- LC Recommended that the list should be prepared in its entirety on a quarterly schedule, and that high priority items should be statused/review once per month.
- DS Would like to see linkage between the monthly review meetings/content and the items that are on the list. For some items each quarter would probably frequent enough for status/review. Thought that the list was quite comprehensive. Recommended that we should relate items to something that we are doing. Issues should be related to their work scope.
- HR Will link the milestones with their respective items/issues. Will get changes made and put something down on paper within the next two weeks (i.e., early April) ready to review.

HANFORD SITE PERMIT MODIFICATION E STATUS

(D. Sherwood, C. Clark, M. Wilson)

- LC Provided status. Noted that the permit has been issued.
- Decision regarding appeal is yet to be made by DOE. Discussions will continue, even though appeal might be in the works... perhaps the issues can be resolved and court action averted.

AGENDA {PRIVATE }
INTER AGENCY MANAGEMENT INTEGRATION TEAM (IAMIT)
MEETING

March 27, 2001
1:00 PM – 2:30 PM

EPA CONFERENCE ROOM
712 SWIFT BLVD., SUITE 5

CHAIRPERSON: D. R. Sherwood

- 1:00 pm SPENT NUCLEAR FUEL ALTERNATIVE FUEL TRANSFER CHANGE
(D. Sherwood, P. Loscoe, W. Ballard, M. Wilson)
- 1:30 pm PLUTONIUM FINISHING PLANT NEGOTIATIONS
(W. Ballard, P. Knollmeyer, M. Wilson, D. Sherwood)
- 1:40 pm M-91-12 DISPUTE RESOLUTION
(W. Ballard, C. Clark, M. Wilson, D. Sherwood)
- 1:45 pm TRI-PARTY AGREEMENT NEGOTIATIONS GENERAL DISCUSSION
(W. Ballard, C. Clark, M. Wilson, D. Sherwood)
- 2:00 pm ENVIRONMENTAL ISSUES MANAGEMENT LIST STATUS DISCUSSION
(H. Rodriguez, M. Wilson, D. Sherwood)
- 2:15 pm HANFORD SITE PERMIT MOD. E STATUS
(C. Clark, M. Wilson, D. Sherwood)
- 2:30 pm ADJOURN

ATTENDEES

Inter Agency Management Integration Team
March 27, 2001

<u>NAME</u>	<u>ORGANIZATION</u>	<u>MAILSTOP</u>	<u>ATTACHMENTS</u>
Deborah Luatate	FH/TPAI	A1-14	✓
Dave Van Leuvan	FH		
Bob Hiegal	DOE		
Mike Wilson	Ecology		
Laura Casack	Ecology		✓
Doug Sherwood	EPA	B5-01	✓
Clifford E. Clark	DOE	A5-15	✓
Ron Skinnarlan	Ecology		
Rick Bond	Ecology		
Wade Ballard	DOE-RL		
James Rasmussen	DOE-ORP		
Paul Day	SNF Project		
Joel Helton	DOE-RL		
Hector M. Rodriguez	DOE-B-	A5-15	✓
John Winterholder	FH		
Janell Hales	FH		
Mike Selander	DOE	A7-50	✓
FRED SAMISON	Ecology	B5-18	
JANE HODGES	Ecology		
Mark Riess	CHG		
JON YERXA	DOE		
Mary Ann Blaze	Oregon Office of Energy		✓
Alex Teimouri	DOE/RL	A5-15	✓

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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
M-34-14B-T01	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.	Old: 02/28/2002 New: Delete
	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).	
M-34-05-T01	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.	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
	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.	New: Delete

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>Old: 03/31/2002 New: 09/30/2002</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>	
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>Old: 03/31/2002 New: Delete</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>	

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>	<p>Old: 12/31/2002</p> <p>New: 11/30/2002</p>
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. 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>	<p>Old: 12/31/2002</p> <p>New: 12/31/2002 (no date change)</p>

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). 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	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.	Old: 12/31/2002 New: 12/31/2002 (no date change)
	Rationale for Change: There is no change to this interim milestone.	
M-34-19	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.	Old: 04/30/2004 New: Delete
	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: <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. The changes in various scheduled activities under the AFTS eliminate the need for this milestone.	
M-34-18B	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.	Old: 07/31/2004 New: 07/31/2004 (no date change)
	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.	

Number	Milestone Description and Rationale for Change	Due Date
M-34-10	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.	Old: 08/31/2004 New: 08/31/2004 (no date change)
	Rationale for Change: There is no change to this Milestone.	
M-34-21-T01	Target Date Description: Initiate full scale K West Basin water removal.	Old: 09/30/2004 New: 10/31/2005
	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.	
M-34-09-T01	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.	Old: 01/31/2005 New: 01/31/2005 (no date change)
	Rationale for Change: There is no change to this Target Date.	
M-34-22	Milestone Description: Complete K West Basin water removal.	Old: 09/30/2005 New: 08/31/2006
	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.	
M-34-23	Milestone Description: Initiate full scale K East Basin water removal.	Old: 10/31/2005 New: 09/30/2004
	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.	

Number	Milestone Description and Rationale for Change	Due Date
M-34-20	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.	Old: 10/31/2005 New: Delete
	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.	
M-34-24	Milestone Description: Complete K East Basin water removal.	Old: 10/31/2006 New: 09/30/2005
	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.)	
M-34-25-T01 (NEW Target Date)	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.	Old: N/A New: 05/31/2004
	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.	

Number	Milestone Description and Rationale for Change	Due Date
M-34-26-T01 (NEW Target Date)	<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 830.206, 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>	Old: N/A New: 09/30/2001
M-34-29 (NEW Interim Milestone)	<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>	Old: N/A New: 03/31/2002

Number	Milestone Description and Rationale for Change	Due Date
M-34-27-T01 (NEW Target Date)	<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> <hr/> <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 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>	Old: N/A New: 05/31/2003
M-34-28 (NEW Interim Milestone)	<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> <hr/> <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 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>	Old: N/A New: 12/31/2003

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.	

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Change Number M-91-01-02	Federal Facility Agreement and Consent Order Change Control Form Do not use blue ink. Type or print using black ink.	Date March 19, 2001
Originator Ecology	Phone	
Class of Change <input type="checkbox"/> I - Signatories <input checked="" type="checkbox"/> II - Executive Manager <input type="checkbox"/> III - Project Manager		
Change Title Modification of HFFACO requirements for the thermal treatment of currently stored and newly generated contact Handled (CH) Low-Level Mixed Waste (LLMW) (Interim Milestone series M-91-12).		
Description/Justification of Change On the Federal level, 40 CFR Part 268 restricts the storage and land disposal of hazardous wastes and specifies strict treatment standards that must be met before these wastes can be land disposed (Washington is an Authorized State for RCRA). In some cases the treatment requirements are stated in the form of a specific technology requirement rather than a concentration based treatment standard. Various types of thermal treatment processes are specified in the regulations and are generally required to treat wastes containing dioxins, furans and/or Phenols, organics and lab packs. The HFFCAO requires that DOE mixed waste also meet the LDR standards * Continued on Page 2		
Impact of Change Modification of the HFFACO milestone M-91-12 to establish thermal treatment rates through CY 2005.		
Affected Documents Hanford Federal Facility Agreement and Consent Order, as amended, DOE's annual Land Disposal Restrictions Report, and Hanford site internal planning and budget documents (e.g., Agreement Action Plan, Appendix D, DOE and DOE Contractor Baseline Change Control documents; Multi Year Work Plans; Sitewide System Engineering control documents, Project Management Plans and Hanford Site integrated Priority List (IPL)".		
Approvals <u>W. Wade Ballard</u> <u>3/22/01</u> <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Disapproved DOE Date _____ EPA Date <input type="checkbox"/> Approved <input type="checkbox"/> Disapproved <u>Michael R. Holt</u> <u>3/21/01</u> <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Disapproved Ecology Date		

On the State level, WAC 173-303-140(4)(d) restricts the land disposal of Organic/Carbonaceous (O/C) waste. A generator is encouraged to reclaim, recycle, recover, treat, detoxify or otherwise process wastes to remove or reduce their harmful properties or characteristics. If the waste cannot be detoxified, at a minimum, wastes must be incinerated to destroy the harmful properties or characteristics. Stabilization, macro-encapsulation and solidification are not acceptable for O/C wastes to be disposed of in Washington. Hanford generates large volumes of O/C waste during routine clean up activities (personal protective equipment, wood debris, organic chemicals, etc.). WAC 173-303-140(3)(c) defines O/C waste as "a dangerous waste that contains combined concentrations of greater than ten percent O/C constituents in the waste; O/C constituents are those substances that contain carbon-hydrogen, carbon-halogen, or carbon-carbon chemical bonding".

M-91-12 states "Initiate thermal treatment of currently stored and newly generated CH LLMW. At least 600 cubic meters will be provided for treatment by December 2005".

On January 12, 2001, Ecology sent DOE a letter notifying it that DOE had failed to meet the milestone. DOE believes that the milestone was met and initiated dispute at the project manager level on January 24. Approval of this HFFACO modification constitutes settlement of this dispute by requiring this change which will drive continued thermal treatment of mixed low level waste and allow DOE an additional 24 months to achieve sustained treatment capabilities.

Milestone M-91-12 is being changed to require thermal treatment of 240 cubic meters of Hanford low level mixed waste by December 2002 and an additional 360 cubic meters, for a total of 600 cubic meters, to be thermally treated and disposed by December 2005.

Strikeout indicates text to be deleted; shading indicates text to be added.

Milestone	Description	Date
M-91-12	Initiate thermal treatment of currently stored and newly generated CH LLMW. At least 600 cubic meters will be provided for treatment by December 2005.	12/31/00
M-91-12	COMPLETE THERMAL TREATMENT AND DISPOSAL OF AN ADDITIONAL 360 CUBIC METERS OF CONTACT HANDLED LLMW. THIS BRINGS THE CUMULATIVE TOTAL TO AT LEAST 600 CUBIC METERS OF CONTACT HANDLED LLMW THERMALLY TREATED AND DISPOSED OF:	12/31/2005

M-91-12A

12/31/02

COMPLETE THERMAL TREATMENT AND DISPOSAL OF AT
LEAST 240 CUBIC METERS OF CONTACT HANDLED LLMW.

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