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SEP 02 2005

Mr. Michael A. Wilson, Program Manager
Nuclear Waste Program
State of Washington
Department of Ecology
3100 Port of Benton Boulevard
Richland, Washington 99354

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EDMC

Dear Mr. Wilson:

INSPECTION OF M-91-40 DECEMBER 31, 2004, DELIVERABLE

The purpose of this letter is to respond to a letter dated May 19, 2005, from Alicia Hamar to Keith Klein and Ronald Gallagher, "Inspection of M-91-40 December 2004 Deliverable."

On February 23, 2005, the State of Washington Department of Ecology (Ecology) initiated an inspection related to retrievably stored waste used to count toward the Tri-Party Agreement M-91-40 December 2004 deliverable. The closeout of the inspection was held May 19, 2005, and documented in the letter referenced above. Four concerns were identified by Ecology, along with two recommendations to address the concerns. The response to the Ecology's concerns and advice are provided in the enclosure.

If you have any questions, please contact me, or your staff may contact Mark French, of my staff, on (509) 373-9863.

Sincerely,

Matthew S. McCormick, Assistant Manager
for the Central Plateau

AMCP:GLS

Enclosure

cc w/encl:
J. D. Ahlers, FHI
G. Bohnee, NPT
N. Ceto, EPA
R. R. Connolly, DFSH
D. R. Einan, EPA
L. L. Fritz, FHI
S. Harris, CTUIR
R. Jim YN
T. M. Martin, HAB
E. J. Murphy-Fitch, FHI
K. Niles, ODOE
Administrative Record (M-91 Milestone)
Environmental Portal

Enclosure

Response to Concerns

Concern #1: Negotiations for the M-91 settlement agreement assumed that contact handled low-level waste (CH LLW) removed from the burial grounds would designate 80 percent LLW and 20 percent mixed low-level waste (MLLW). During this inspection, it was observed that all low-level waste retrieved and shipped to the Central Waste Complex (CWC) was considered MLLW. Designation (and treatment) of all low-level waste retrieved as MLLW would significantly impact the requirements for the M-91-42 milestone regarding treatment of contact handled waste currently in storage, and being retrieved.

Response: In order to meet the stringent requirements of the Tri-Party Agreement (Hanford Federal Facility Agreement and Consent Order) Milestone M-91, the U.S. Department of Energy and Fluor Hanford, Inc. (FHI) are using a rigorous methodology to designate retrievably stored waste (RSW). Tri-Party Agreement Milestone M-91 has specific provisions related to the designation of the RSW. Specifically, the "Description/Justification of Change" section in Hanford Federal Facility Agreement and Consent Order (HFFACO) Change Package M-91-03-01 states:

"For purposes of this M-91-03-01 Change Package, the parties have agreed as follows:

1. All RSW is suspected of being mixed waste (MW).
2. RSW will be managed as MW unless and until it is designated as non-mixed through the designation process (WAC 173-303-070 through 100); . . ."

Further, Tri-Party Agreement Milestone M-91-42 requires that treatment of all contact-handled mixed low level waste, including retrieved waste, be completed by December 31, 2009.

DOE and FHI fully understand the requirements of the M-91-42 milestone. Forecasting, budgeting, and implementation activities to treat and dispose of the CH MLLW are ongoing. The current baseline includes the assumption that 50 percent of the RSW will be MLLW. The plan to conduct these activities has been submitted as part of Tri-Party Agreement Milestone M-91-03 and is described in HNF-19169, M-91 TRU Mixed/ Mixed Low-Level Waste Project Management Plan. DOE and FHI will continue to monitor progress on meeting M-91-42 and adjust out-year planning if necessary.

Concern #2: Some RSW waste streams are not currently being confirmed by visual examination for the Waste Isolation Pilot Plant (WIPP) certification. Therefore the feedback loop, as established in the M-91-00 Milestone, to confirm adequate designation of these waste streams is not being conducted in a timely manner.

Response: RSW waste streams are designated such that safe and compliant storage at the DOE Treatment/Storage/Disposal unit is assured. Further, confirmation of the waste is always completed prior to subsequent treatment and/or disposal in accordance with regulatory requirements and applicable decision documents.

Designation of the RSW is completed such that sufficient information is obtained to meet the requirements of WAC 173-303-070 through 100 and to properly manage the waste in accordance with the storage facility's acceptance criteria. Sufficient knowledge is obtained to demonstrate that the waste is not prohibited from management, to segregate waste containers for compatibility, to ensure compatibility of waste within containers, to ensure that the waste can be safely managed, and to segregate waste for subsequent treatment, storage and/or disposal.

All transuranic RSW is required to undergo WIPP certification activities prior to disposal. Certification activities are completed once a waste stream is approved to be sent to WIPP. Radiography or visual examination is a mandatory element of the certification process. Visual examination is not required on all containers. The results of these activities are used as the feedback loop. In no case is a RSW container sent to treatment and/or disposal without waste confirmation taking place in accordance with the applicable regulatory requirements and decision documents for that waste stream.

A recent example that demonstrates the timely confirmation of RSW is the treatment of the non-transuranic portion of the Plutonium Finishing Plant debris waste stream. This waste stream is being managed under the Comprehensive Environmental Response, Compensation, and Liability Act Time Critical Removal Action Memorandum for Disposal at the Environmental Restoration Facility [ERDF] of Non-Transuranic Waste Generated during the M-91 Retrieval Operations at Burial Ground 218-W-4C. WIPP certification activities identified liquids in some of the containers. The liquids are not eligible for macroencapsulation or disposal in a landfill. Prior to treatment and disposal of any of any of this waste steps were taken, with lead regulatory agency approval, to change the management pathway and perform confirmation on 100 percent of the waste stream. The feedback loop was used to ensure compliant treatment and disposal of the waste.

Concern #3: Ecology is concerned that the increased volume of MLLW being generated as described in Concern #1 above, and delays in waste confirmation as described in Concern #2 above will delay treatment, result in filling up the limited storage space in the CWC, and increase the difficulty for DOE to meet the M-91-42 Milestone to treat all existing and newly generated contact-handled waste by December 31, 2009.

Response: DOE and FHI fully understand the regulatory commitments and the intent of Milestone M-91. As such, MLLW volumes are routinely monitored and treatment of RSW has been initiated to meet milestone deliverables. Confirmation activities are completed as part of the treatment activities and, because they are integral to the treatment process, are not expected to delay treatment.

DOE and FHI continue to plan and implement work activities to meet the M-91-42 Tri-Party Agreement Milestone as described in HNF-19169, M-91 TRU Mixed/ Mixed Low-Level Waste Project Management Plan. Permitted CWC storage capacities have been considered in anticipation of receiving additional volumes of RSW. The treatment and disposal of other waste in the CWC, such as the 183-H waste stream, has opened up additional storage capacity. A recent evaluation of the CWC storage capacity indicates that the capacity is more than sufficient to accommodate the short-term queuing of RSW prior to treatment and/or disposal.

Concern #4: In Section 7.2.2 of The Data Quality Objectives Summary Report for Disposition

of the Low-Level Waste Fraction of Retrievably Stored Waste (HNF-20770), a 10 percent decision error is allowed for confirmation of waste stream contents. For example, up to 10 percent of a waste stream may contain prohibited items without requiring further waste stream examinations or adjustments to waste stream designation/characterization. The 10 percent allowable decision error is not a statistically derived, i.e., this number does not represent a statistical 90 percent confidence factor, rather it appears to be an arbitrarily selected value. Use of this decision error to confirm waste container contents could result in allowing an excessive number of waste containers to be processed or disposed without accurate waste designation or characterization or removal of prohibited items.

Response: DOE and FHI acknowledge that the decision error is not statistically derived. However, the technical basis is not arbitrary and was developed during the DQO process using methodology from other approved sampling and analysis plans, waste stream acceptable knowledge, and U.S. Environmental Protection Agency guidance. The decision error is selected with the objective of balancing the risk against inappropriate consequences. As additional waste streams are evaluated and included in the data quality objective, the appropriateness of this decision error will be re-evaluated based on the waste stream process knowledge and confirmation data. Currently, the streams being dispositioned are secondary waste (plastic/plywood, etc.) where the 10 percent decision error does not apply, and the PFP debris stream discussed above in response to concern 2. Therefore, the 10 percent decision rule is not currently being used. The allowable decision error of a false negative (i.e., failing to produce a land disposal restriction compliant waste that meets the Environmental Restoration Disposal Facility profile) is currently 0 percent for the PFP debris stream based on the changes made due to the discovery of some free liquids in PFP debris containers.

Response to Advice

Advice #1. The US DOE re-evaluate the treatment schedule deliverables outlined in letter A-F of Milestone M-91-42 and propose new values to ensure that all MLLW in the CWC, RSW, and waste newly generated through December 2008 are treated to meet land disposal restriction requirements by December 31, 2009, through the Tri-Party Agreement change process.

Response: The existing language in Milestone M-91-42 provides a mechanism to revise the treatment schedule if necessary: "If the actual volume of newly generated or retrieved CH-MLLW covered by this milestone is significantly more than the estimated volumes the Tri- Parties may agree to revise these requirements." Forecasting, budgeting, and other planning activities to treat and dispose of the CH MLLW will continue to be monitored against the Tri-Party Agreement milestone commitments to determine if any adjustments are required.

The current baseline plan for treatment of M-91-42 MLLW assumes 50 percent of the RSW will be MLLW. This assumption has been incorporated into the plans to meet the M-91-42 December 31, 2009, treatment requirements. As has been noted in Tri-Party Agreement project manager meetings and the Tri-Party Agreement M-91 quarterly review, we are well ahead of the current annual milestones, but this is consistent with our planning to meet the December 2009 M-91-42 Milestone. We believe that no adjustments to the milestones are needed. Progress toward meeting M-91-42 requirements is well demonstrated through treatment progress to date that is provided to Ecology monthly.

Advice #2. Ecology be directly involved in the development of future attachments to The Data Quality Objectives Summary Report for Disposition of the Low-Level Waste Fraction of Retrievably Stored Waste (HNF-20770) and subsequent sampling and analysis plans (SAP)

Response: DOE and its contractors will continue to work with EPA as the lead regulatory agency on development and approval of revisions to the DQO and SAP. As such, we will continue to support EPA as requested in coordination with Ecology.