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DEPARTMENT OF ECOLOGY

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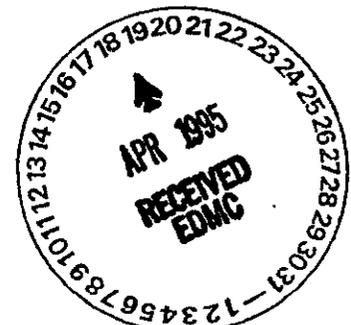
March 29, 1995

Mr. Leif Erickson  
Characterization Program  
U.S. Department of Energy  
PO Box 550  
Richland, WA 99352

Dear Mr. Erickson:

The Washington State Department of Ecology (Ecology) and the U.S. Environmental Protection Agency (EPA) are concerned that recent characterization efforts by the U.S. Department of Energy (USDOE) are falling short of meeting the requirements of the Federal Facilities Consent and Agreement Order (better known as the Tri-Party Agreement or TPA) Milestone M-44. TPA Milestone M-44 was originally intended to help direct the sampling and characterization efforts for the 177 high level radioactive waste tanks at the Hanford Site. The Milestone's requirements provide a framework which would prioritize and schedule USDOE's efforts to obtain the desired characterization information. USDOE's efforts, however, have fallen seriously short of meeting the intent of Milestone M-44. A program needs to be instituted to bring the Characterization Program back into alignment with the TPA.

The attached document summarizes EPA and Ecology's position concerning Milestone M-44. We understand the complexities in dealing with the unique and difficult problems faced by the Characterization Program in its attempt to better understand the waste stored in the 177 tanks and are willing to help direct this effort. Neither the EPA nor Ecology have any interest, however, in micromanaging the Characterization Program. Substantial changes need to occur to refocus USDOE's efforts in this area.



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If you should have any questions concerning this matter, please contact Alex Stone at (509) 736-3018, or Kevin Oates at (509) 376-6623. We look forward to resolving this issue in the near future.

Sincerely,



Dr. Alex Stone  
Ecology Nuclear Waste Program  
Characterization Team Leader



Mr. Kevin Oates  
EPA Richland Office  
TWRS Representative

AS/KO:mf  
Enclosure

cc: Mr. Jackson Kinzer, USDOE  
Mr. Ron Gerton, USDOE  
Mr. Jim Thompson, USDOE  
Mr. Wen Liu, USDOE  
Mr. Mike Payne, WHC  
Dr. Harry Babad, WHC  
Mr. Bob Popielarczyk, WHC  
Dr. Susan Eberlein, WHC  
Administrative Record

## **TPA Milestone M-44 Refocusing Efforts**

The U.S. Environmental Protection Agency (EPA) and the Washington State Department of Ecology (Ecology) are concerned that current actions taken by the U. S. Department of Energy (USDOE) are not fulfilling the requirements of TPA Milestone M-44. EPA and Ecology would like to present its interpretation of this milestone and would like to see a program instituted which will bring USDOE actions back toward the intent of the milestone. Milestone M-44 deals with characterization of the waste stored in the 177 underground storage tanks on the Hanford Site. The requirements of this milestone will be fulfilled when all waste within these tanks are adequately characterized. Therefore, the focus of this milestone is the following:

Produce characterization data which provides detailed chemical information to address the relevant issues concerning short-term and long-term safe storage and long-term management of the tank waste.

Provide a strategy which enables USDOE to fulfill the above requirement.

The various documents specified within Milestone M-44 are intended to assist USDOE in producing an appropriate and defensible strategy for characterizing the tank waste. The documents have the following emphasis:

**Tank Characterization Plan (TCP):** The TCPs are intended to provide a long-term characterization plan for each of the 177 tanks on the Hanford Site. These documents combine all the data requirements from the various TWRS programs (pretreatment, retrieval, vitrification, safety, etc.) and determine: 1) how this data can be obtained, 2) priority of the data requirements, and 3) a general schedule on when this information will be obtained. The TCPs are a long-term planning tool and can be updated as decision inputs are changed. They are not meant to supplant a sampling and analysis plan, and are not meant to direct short-term sampling events. They are intended to delineate over a reasonable time frame what information is needed from each tank. In addition, as described in the Federal Facility Agreement and Consent Order (better known as the Tri-Party Agreement or TPA) Change Control Form M-44-93-01, the TCPs are to "be developed for each DST and SST using the DQO process." (page 2, first paragraph) The current TCPs being issued do not fulfill the requirements of Milestone M-44 and need to be brought into line with the original intent of this milestone.

**Tank Characterization Report (TCR):** The TCRs combine the information obtained under the direction of the TCPs, with previous sampling information to determine the current level of understanding concerning the waste in each tank. The TCRs are updated as information directed by the TCPs is made available. The TCRs are used as the final repository of the characterization data and, in a perfect world, would eventually contain all information which clearly and concisely characterizes the waste in each tank. The emphasis, however, is placed upon characterization data which defines the waste content. It is not to use sampling information to determine what is not there. For example, most of the data collected for the Safety program using vapor sampling describes what is in the upper regions of the tank waste and dome space primarily to address

safety issues. It does not describe what is in the tank. Therefore, although the vapor sampling data does provide valuable information for the Safety program, it is insufficient to fulfill the TCR requirements of Milestone M-44.

**TWRS Waste Analysis Plan (TWRS WAP):** The TWRS WAP is the document which pulls together the information contained in the TCPs and TCRs and directs the sampling events which are to occur over the next year. This is the only document which must be provided each year because it contains the definitive sampling schedule. As stated in the TPA Change Request Form M-44-93-01, "The TWAP will cover sampling and analysis activities for each DST and SST to be characterized in the following fiscal year." (Page 3, Milestone M-44-02) The Change Form further states, "The TWAP will also identify the following year's TCRs to be submitted and on what type of data they will be based." and "The TWAP and TCPs will be developed via a DQO process . . . ." (same reference). Information can be provided for a longer period of time (current characterization schedules are often for the next five years). However, the main emphasis of this document is to clearly delineate what sampling will occur over the next year as directed by the TCPs. This process has not yet been implemented by USDOE, and the TWRS WAP submitted in September 1994 does not satisfy these requirements.

One important point for all these documents, but particularly for the TCPs and the TWRS WAP, is flexibility. Although both documents contain information on sampling which will occur in the short-term, it is understood this information is only a best estimate at the time it was provided. Deviations from these plans may (and probably will) occur as emergencies arise and retrieval sequencing is determined.

One of the main thrusts of Milestone M-44 is to recognize the need to provide a comprehensive plan and schedule to deal with the characterizations needs for the waste tanks. EPA and Ecology are not interested in micromanaging TWRS. Therefore, to write a TCP for each sampling event negates the attempt of M-44 to provide a long-term sampling strategy. The sample and analysis plans must be separated from the TCPs as they currently stand. EPA and Ecology are concerned that the exaggerated need for documentation required under USDOE's current interpretation of the requirements for Milestone M-44 is hampering sampling efforts. The primary objective of Milestone M-44 is characterization data. The documents required by Milestone M-44 are intended to help plan and prioritize this effort. Any sampling delay caused by a misinterpretation of the milestone requirements is contrary to the intent of M-44 and needs to be corrected.

The TCPs as they currently exist, and the TWRS WAP submitted in September 1994, do not fulfill the requirements of Milestone M-44. Neither EPA nor Ecology will review any more of these documents until substantial changes occur. EPA and Ecology are, however, willing to provide a short period of time to enable USDOE to redirect its efforts as they pertain to Milestone M-44. In addition, EPA and Ecology are willing to provide assistance in guiding the rewrite of the above referenced documents in order to guarantee the intent of Milestone M-44 is met. EPA and Ecology are concerned the current USDOE program is negating the intention of M-44 to characterize the waste tanks at Hanford and hopes to see dramatic improvement in the characterization program.