

United States Government

Department of Energy

memorandum

Carlsbad Field Office
Carlsbad, New Mexico 88221

DATE: **NOV 10 2003**

REPLY TO
ATTN OF: CBFO:QA:ALH:VW:03-2933:UFC:2300

SUBJECT: Course of Action for LANL TRU Waste Characterization and Certification

TO: James Nunz, Waste Management Program Manager



The Carlsbad Field Office (CBFO) Management Procedure MP 3.1, *Corrective Action Reports*, requires that the CBFO Manager determine a course of action if corrective actions for a Corrective Action Report (CAR) requiring accelerated corrective action cannot be completed in thirty days. Corrective actions for CAR 03-083 were not completed by October 28, 2003, thirty days from the issuance of the CAR. Because of this, and language contained in the attached correspondence from Frank Marcinowski, United States Environmental Protection Agency (EPA), Los Alamos National Laboratory (LANL) shall not perform non-destructive assay (NDA) for TRU waste characterization until the CBFO accepts CAR 03-083 closure documentation and determines that corrective actions have been satisfactorily completed. Following closure of CAR 03-083 and completion of the restart activities described in the letter from Ralph Erickson to George P. Nanos, dated October 17, 2003, the CBFO will provide LANL with written authorization to initiate NDA characterization activities in preparation for a certification audit. This audit will not be conducted as an annual recertification audit. A full certification audit shall be performed and all LANL TRU waste characterization and certification activities must be demonstrated to the satisfaction of the CBFO and the EPA in order for LANL to receive authorization to resume shipments of TRU waste to the Waste Isolation Pilot Plant (WIPP). The EPA will also perform an inspection of the EPA regulated portion of the LANL program under 40 CFR 194.8.


LANL may continue headspace gas sampling and analysis, real-time radiography, and visual examination; however, batch data generated from these activities shall not be validated and verified by the LANL site project office beyond that necessary for program demonstration in the full certification audit. Production data may be

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entered to WIPP Waste Information System (WWIS) for program demonstration purposes. The CBFO has initiated the hold feature of the WWIS to ensure that input LANL data cannot be approved until an authorization decision is made following the full certification audit.

If you have any questions, please contact me at (505) 234-7300.


Dr. Inés R. Triay
Manager

Attachment

cc: w/attachment
K. Watson, CBFO *ED
L. Chism, CBFO *ED
A. Holland, CBFO *ED
R. Erickson, LASO *ED
J. Vozella, LASO *ED
B. Martin, LANL *ED
S. Wander, LANL *ED
P. Lindahl, LANL *ED
B. Walker, EEG *ED
F. Marcinowski, EPA*ED
R. Joglekar, EPA *ED
E. Feltcorn, EPA *ED
S. Zappe, NMED *ED
D. Standiford, WTS *ED
M. Strum, WTS *ED
L. Greene, WRES *ED
A. Pangle, CTAC *ED
CBFO M&RC

*ED denotes Electronic Distribution



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

COPY

OFFICE OF
AIR AND RADIATION

Oct 27, 2003

Dr. Inés Triay, Manager
Carlsbad Field Office
U.S. Department of Energy
P.O. Box 3090
Carlsbad, NM 88221-3090

Dear Dr. Triay:

I am writing in response to your letter dated October 15, 2003. In that letter, you discuss the significant condition adverse to quality (SCAQ) discovered recently at the Los Alamos National Laboratory. This finding, in the area of non-destructive assay for radionuclides, was discovered during the Carlsbad Field Office (CBFO) Audit A-03-27 of the transuranic (TRU) waste characterization and certification activities at LANL. Your letter describes the findings, states what actions have been taken by CBFO and the site to address the compliance problems, and also provides a plan that CBFO will pursue once LANL completes corrective actions to address the CBFO Corrective Action Report (CAR).

In summary, you confirm that LANL had incorrectly certified for disposal at WIPP a number of TRU waste drums that measured below the lower limit of detection of the non-destructive assay (NDA) equipment used – i.e., the High Efficiency Neutron Counter (HENC). Ninety-eight (98) drums affected by this condition have been disposed in the WIPP; of these, 43 drums also assayed below the established calibration range of the instrument. For each of the drums, LANL reported in the WWIS either invalid measured values or the lower-limit of detection of the HENC. These practices were in violation of LANL's own operating procedures as well as multiple provisions of the Waste Acceptance Criteria for Contact-Handled Waste (CH-WAC) approved by the Environmental Protection Agency (EPA). They also violate the requirements of the CBFO Quality Assurance Program Document.

Upon review of the information related to noncompliance at LANL, we concur with the CBFO's approach, namely:

- ▶ Immediate stoppage of LANL waste characterization, certification, and shipments to the WIPP for disposal until the conditions documented on the CAR 03-083 are successfully corrected by LANL.

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Requiring LANL to devise a plan for resolving the Corrective Action Report issued by CBFO (CAR 03-083).

Notifying EPA of the CAR in writing.

Conducting, jointly with LANL, an investigation to ascertain:

- the extent of violations of the CH-WAC during the characterization of 98 drums over a six week period spanning from August 15 to September 23, 2003;
 - the identification of affected drums; and
 - the physical location of affected drums already emplaced in the WIPP repository, and their impact on the repository performance and WIPP radiological inventory
- ▶ Subjecting the site to a CBFO certification audit for portions of the LANL program regulated by EPA prior to allowing shipments of WIPP waste to resume.

In addition to meeting the above requirements imposed by CBFO prior to resuming WIPP waste shipments, LANL also will be subject to a waste characterization approval inspection by EPA under our authority at §194.8. We view the infractions at LANL as very serious and believe that a high level of scrutiny is warranted at the site. Thus, we will follow the full review and approval process for renewing waste characterization at LANL. The LANL must provide full site documentation, including any revised documents, related to TRU waste characterization for our review and placement in EPA's public docket. We will announce our inspection in the Federal Register. Our inspection will cover the full range of TRU waste characterization activities, with particular emphasis on the NDA systems, interpretation and implementation of the CH-WAC, and corrective actions that have been taken at the site.

During our inspection, we will also examine two additional issues raised by the data on TRU alpha activity concentration data provided for 98 drums (in Attachment 2 to the letter). First, we will verify that the reported TRU alpha concentrations reflect only TRU alpha radionuclides and not the total alpha radionuclides. Second, we will review why 11 of the 98 drums were overpacked in payload containers (standard waste boxes or ten drum overpacks) and whether the site followed appropriate load management procedures as described in our letter of August 8, 2003 on this issue.

Finally, your letter provides CBFO's assessment that the radiological materials in the 98 drums have a negligible impact on the radiological inventory of WIPP (0.0013% of the current total repository inventory of 347,600 curies). Further, your letter concludes that these drums should remain in the WIPP repository as their removal would expose WIPP workers to additional health and safety risks. We concur with CBFO's assessment that there is no reasonable basis to expect that these drums would adversely affect WIPP's long-term performance, and also agree that their retrieval could pose significant operational difficulties and lead to unnecessary worker exposures. For these reasons, LANL waste subject to the faulty practices and already emplaced in the WIPP disposal system shall not be retrieved.

If you have any questions, please contact Rajani Joglekar at (202) 564-7734.

Sincerely,

A handwritten signature in black ink, appearing to read "Frank Marcinowski". The signature is fluid and cursive, with a large initial "F" and a stylized "M".

Frank Marcinowski, Director
Radiation Protection Division

cc: Lynn Smith, EM-1
Kerry Watson, CBFO
Ava Holland, CBFO
Matthew Silva, EEG
Steve Zappe, NMED
Don Hancock, SRIC