



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

ENTERED

J.R. Stroble
Director, National TRU Program
Carlsbad Field Office
U.S. Department of Energy
P.O. Box 3090
Carlsbad, NM 88221-3090

APR 14 2011

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AIR AND RADIATION



Dear Mr. Stroble:

This letter discusses the U. S. Environmental Protection Agency's (EPA) evaluation of a Tier 2 (T2) change implemented at Hanford by the Central Characterization Project (CCP). The enclosed report discusses EPA's evaluation results.

In 2010, EPA approved Hanford-CCP's contact-handled (CH) transuranic (TRU) waste characterization program. As part of that approval, implementation of new real time radiography (RTR) equipment of a different type from the one approved at the baseline was identified as a T2 change (requiring no EPA approval prior to implementation). In February 2011, Hanford-CCP notified EPA of their intent to use of the High Energy RTR (HE RTR) unit to characterize CH TRU debris waste packaged in standard waste boxes. At Hanford-CCP, on March 22-23, EPA evaluated the use of this equipment and associated procedures and determined them to be technically adequate. EPA found no issues with Hanford-CCP operation of the unit. Therefore Hanford-CCP may continue to use the HE RTR.

If you have any questions regarding this approval, please contact Rajani Joglekar (202 343-9462) or Ed Feltcorn (202 343-9422).

Sincerely,

Tom Peake, Director
Center for Waste Management and Regulations

Enclosure



cc: Electronic Distribution

Alton Harris, DOE EM
Courtland Fesmire, CBFO
Norma Castaneda, CBFO
Martin Navarrete, CBFO
Dennis Miehl, CBFO
Steve Zappe, NMED
Ray Lee, EPA
Allison Pangle, CTAC
Site Documents ; + < 201

Training

There were four operators qualified to perform examinations on the HE-RTR unit at the time of the on-site visit. Operators had previously attended RTR training provided by VJ/MCS, and the EPA team reviewed training and qualification records. EPA reviewed test drum DVDs and written records and operator qualification records to determine that operators were adequately trained to generate RTR data on the HE RTR unit. EPA did not identify any issues associated with training records. EPA reviewed the CCP LOQI dated March 16, 2011, to verify that the four on-site operators were identified as required. The LOQI also identified seven individuals based in Carlsbad, NM who performed ITR duties for data generated at Hanford-CCP by the HE RTR unit. At the time of this evaluation, the HE RTR unit had not examined any containers except those used for training purposes. Accordingly, EPA could not verify that an Independent Observation and Replicate Scan were performed in each batch, as required but will do so at a later date once BDRs are completed.

Procedures

CCP-TP-198, *CCP HE-RTR Operating Procedure*, Revision 2, provides instruction for safe start-up, operation, and shut-down of the HE-RTR system. This procedure is outside of EPA's purview and was not reviewed during the on-site visit. CCP-Hanford personnel use CCP-TP-053, *CCP Standard Real-Time Radiography (RTR) Inspection Procedure*, Revision 10, to guide RTR operations and data recording. During the demonstration, an Image Test was performed using a lines-pair gauge as required by the procedure. The operator stated that the standard weight table in CCP-TP-053 is not used because none of the items listed in the table were encountered in the waste stream.

Observation of Operations

On March 22, 2011, EPA observed the operation on the HE RTR Unit 1 as it examined Standard Waste Box No. RL0037154 from Hanford Waste Stream RLMFPDD, and BDR No. RLRTR010001, which documented the RTR examination. The examination took place in Vault 2406W, Trailer MO654 located near the Waste Receiving and Packaging Facility in the 200 West Area at Hanford. Inspectors observed performance of the Image Test and verification that the audio/visual recording was of the required quality and clarity. Items identified during the examination were recorded on CCP-TP-053, Attachment 2, Radiography Data Sheet. The RTR operator did not pause the audio/visual recording during the time he entered data into the RTR data sheet. EPA determined that operations were performed correctly and in accordance with procedure CCP-TP-053.

Conclusion

EPA did not identify any issues during its on-site evaluation of RTR and determined that HE RTR examinations were performed using an approved procedure by qualified personnel.

Enclosure
Tier 2 Evaluation Report
High Energy Real Time Radiography Unit at Hanford Site

On March 22-23, 2011, EPA performed a Tier 2 (T2) evaluation of the High Energy Real-Time Radiography (HE RTR) unit manufactured by VJ Technologies and operated by Central Characterization Project (CCP) at the Hanford Site. This review was performed by Mr. Edward Feltcorn (EPA) and Ms. Dorothy Gill (SC&A). Personnel contacted during the inspection included:

Name	Affiliation
Kenneth Simpson	CCP RTR Operator/ITR
Larry Porter	CCP VPM
Charlie Riggs	CTAC, CBFO Observer

Documents and Records Reviewed

- Demonstration of Capability DVDs:
 - NDE TEST-01 A for three operators, dated August 5, 2010 and October 18, 2010
 - NDE-TEST-02 for one operator dated July 8, 2010
 - NDE-TEST-04 for two operators dated September 1 and 9, 2010
 - NDE-TEST-05 for three operators, dated August 26 and 29, 2010 and January 22, 2011
 - NDE-TEST-09 for one operator dated October 6, 2010
 - NDE-TEST-10 for one operator dated February 2, 2011
 - NDE-TEST-13 for one operator dated October 20, 2010
 - NDE-TEST-14 for one operator dated March 11, 2011
- NDE Test Drum Inventory Sheet for NDE-TEST-01, NDE-TEST-13, and NDE-TEST-14
- Written CCP Test Drum Data Sheet for Contact-Handled Waste for four operators, dated August 5, 2010 and October 18 and 20, 2010
- NDE RTR Operator/ITR Qualification cards for four individuals on the List of Qualified Individuals (LOQI) qualified as operators on the HE RTR unit
- NDE RTR Operator/ITR Qualification cards for eight individuals on the LOQI qualified as ITR only
- CCP-TP-198, *CCP HE RTR Operating Procedure*, Revision 2, dated March 14, 2011
- CCP-TP-053, *CCP Standard Real-Time Radiography (RTR) Inspection Procedure*, Revision 10, dated March 4, 2011
- CCP LOQI, dated March 16, 2011