

DOE/CAO-00-3174 Rev. 1

**REQUIREMENTS FOR EVALUATING AND DOCUMENTING
WASTE ANALYSIS PLAN COMPLIANCE FOR TESTING
BATCH DATA COLLECTED PRIOR TO
NOVEMBER 26, 1999**

JULY 19, 2000



**U.S. DEPARTMENT OF ENERGY
CARLSBAD AREA OFFICE**



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PURPOSE

This document establishes the requirements for TRU Waste Generator/Storage Sites to evaluate and document Waste Isolation Pilot Plant (WIPP) Hazardous Waste Facility Permit (HWFP) Waste Analysis Plan (WAP) compliance for testing batch data collected prior to November 26, 1999.

SCOPE

The WIPP HWFP WAP specifies characterization techniques required to confirm acceptable knowledge for waste streams at TRU waste generator/storage sites. The WAP specifically prohibits the WIPP from accepting waste for storage and disposal that is not characterized in full compliance with the requirements of the WAP. This document establishes the process to be used by generator/storage sites to:

- Evaluate WAP compliance status of real-time radiography (RTR) and visual examination (VE) testing batch data collected prior to the effective date of the WIPP HWFP;
- Document the results of the evaluation;
- Determine required actions to correct WAP discrepant data; or
- Collect new data from videotape (or other video media) review of RTR and/or VE.

Prior to offering any TRU or TRU mixed waste container for disposal at the WIPP upon which RTR and/or VE was performed prior to November 26, 1999, generator/storage sites shall demonstrate that the associated data was collected and validated in compliance with all applicable WAP requirements.

GENERAL

Through cooperative agreement, the U. S. Department of Energy Carlsbad Area Office (CAO) and New Mexico Environment Department (NMED) have identified two acceptable methodologies that may be utilized by the generator/storage sites to demonstrate/achieve RTR and/or VE data WAP compliance. Method One specifies six tasks that must be performed to evaluate the compliance status of RTR and/or VE testing batch data with the WAP. When using Method One, each task must be performed and documented by the generator/storage site prior to determining the specific corrective actions necessary to achieve compliance with applicable WAP requirements. Method Two allows sites to collect WAP compliant RTR and/or VE data by performing videotape reviews using WAP trained and qualified operators. Method Two requires that the site use WAP compliant procedures that have been subject to CAO audit.

While performing the tasks outlined in Method One, a generator/storage site may determine that it would be preferable to utilize Method Two. They may then cease all Method One activities and initiate Method Two.

If Generator/storage sites utilizing either Methods One or Two decide to perform RTR and/or VE characterization techniques approved by NMED and CAO through the WIPP HWFP Attachment B6 audit process; halt the process and notify CAO that the testing will be performed using the current procedures.

PROCESS

Method One

Prepare a Corrective Action Plan that contains, at a minimum, the following tasks and deliverables:

1. List the specific type of pre-existing testing data to be assessed and identify the container population, by container number, tested prior to the establishment of WIPP HWFP WAP compliant procedures at the generator site. Define the inclusive dates (e.g., April 1, 1997, and November 25, 1999) over which this testing was performed and correlate the container numbers with the procedural revisions used to generate the testing data for those containers. Provide to the Site Project Manager and Site Project Quality Assurance Officer a listing of the procedural revisions, associated containers and the dates of testing. Include applicable hazardous waste codes and waste matrix code(s) for the containers identified.

Deliverable: List of containers tested between dates 'a' and 'b'.

2. Using a matrix provided by DOE CAO, document the procedures and procedural revisions used for testing, data verification and data validation, and the training required implementing those procedures. Document the differences between the WAP requirements and the procedures or training used. Include as objective evidence documentation of training and a copy of the procedures and procedural revisions used.

Deliverable: Completed matrix identifying requirement differences between the WAP and all procedures, procedural revisions, and training used.

3. Evaluate audit reports and corrective action reports, internal corrective action plans, and nonconformance reports to determine any impacts on the testing, operator training, and data verification and validation performed on the containers.

Deliverable: Written documentation of results of review of audit reports and corrective action reports, internal corrective action plans, and nonconformance reports.

4. Prepare a summary report of WAP compliance status documenting impacts of procedural revisions, operator training and qualification, audit corrective action reports, internal corrective action plans, and nonconformance reports.

Deliverable: Written summary of WAP compliance status submitted to the Site Project Manager and the Site Project Quality Assurance Officer.

5. Initiate Corrective Action Plans to document tasks required to address non-WAP compliant containers and to identify non-WAP compliant data as unusable until the required corrective actions are completed. The Corrective Action Plans must identify how the testing data that was obtained using different procedure revisions for data generation, validation and verification, and training will be addressed.

Deliverable: Additional Corrective Action Plan tasks developed and submitted to a "corrective action tracking system."

6. Submit report and objective evidence demonstrating WAP compliance to DOE CAO.

Deliverable: Submittal of report and objective evidence to DOE CAO for review and approval using the following general pre-existing testing data report outline:

A. Scope of Reassessment Process. Indicate the specific type of pre-existing testing data to be assessed, the applicable procedures, and the containers assessed using those procedures. Include applicable hazardous waste codes and the waste matrix code(s) for the containers identified. Include the revision number and the effective dates of each procedure examined.

B. Identification of WAP Compliance.

1. B6 Checklist Comparison Using the matrix provided by DOE CAO, referencing specific WIPP HWFP Attachment B6 checklist elements, identify the procedures and Attachment B6 checklist elements that are applicable to the testing data being assessed. This process will document up-front WAP compliance analysis on a broad level and identify specific procedures/WAP elements of interest.
2. WAP vs. Procedure Comparison Using the matrix provided by DOE CAO identify specific procedural revision numbers and sections that demonstrate compliance to the requirements of the WAP. Clearly indicate compliance status by recording a yes or no in the appropriate matrix column. All no entries should be further explained in the comment section of the matrix and should also be specifically addressed in the pre-existing testing data corrective action plan.
3. Identification of discrepancies and assessment of such discrepancies within a procedure with respect to WAP compliance. Identify procedural revisions and corresponding containers impacted by discrepancies, the impact of each discrepancy on the waste characterization process, and the action needed to resolve each discrepancy to ensure WAP compliance.

C. Reassessment Process Present the processes used to resolve discrepancies identified in Item B. This process shall be detailed to the point wherein the specific checklists or forms used to perform the reassessment are presented (i.e., blank forms documenting WAP compliance), as well as the specific reassessment process/procedure (e.g., criteria for acquiring container specific data), problem resolution (e.g., rejecting pre-existing testing data if necessary), final documentation needs (e.g., individual container documentation required, including deficiencies), and identification and assessment of any additional changes made as a result of the re-evaluation. This reassessment process shall fully document the reassessment actions to be taken, as it will guide project personnel performing reassessment to ensure that all tasks are completely and accurately accomplished through consistent guidance.

D. Example of Implementation Include a single example (e.g., testing batch data report) of the Reassessment Process, showing how successful reassessment is achieved.

Method Two

If a generator/storage site determines that the effort required to qualify pre-existing data to the requirements specified in DOE/CAO-00-3174, Method One is not justified, the site may use the pre-existing VE and RTR videotapes to generate new testing batch data reports using WIPP Waste Analysis Plan (WAP) compliant procedures. A CAR shall be initiated that addresses the following minimum information:

- type of pre-existing testing data to be assessed;
- procedure or procedural revision(s) used to collect original testing batch data; and
- containers to be assessed

The CAR can satisfy the minimum information required by providing traceability to the data. Assessment will be performed using the applicable steps of the current procedures, as required, to complete the new testing batch data reports. Pre-existing data shall only be assessed by generator/storage sites whose procedures were subjected to audit by CAO, and after the Final Audit Report has been approved by NMED. Generator/storage shall provide an example of implementation to CAO. CAO shall forward the generator/storage site example of implementation to the NMED.

Limitations

- It is recommended that the batch structure used to generate the original RTR and VE data is maintained. This greatly simplifies the maintenance of videotape identity, correspondence of independent replicate scans (RTR) to particular batches, and independence of operators versus independent technical reviewers.

- Qualified operators must review RTR and VE tapes. The qualification and training program for these operators must have been subject to CAO audit and submitted to NMED in a Final Audit Report.
- RTR and VE data must be recorded on the data forms included in the approved WIPP WAP compliant procedures. There must be an individual data form for each container in the testing batch data report.
- Testing batches can consist of no more than 20 containers, examined using the same testing equipment (i.e., if a site has more than one RTR or VE facility, containers from different facilities cannot be included in the same testing batch data report).
- The WIPP WAP frequency requirements for independent observations, and independent replicate scans (RTR) must be met (once per testing batch or once per day, whichever is less frequent). The same independent replicate scan cannot be used on multiple testing batch data reports. If the original batch structure used to obtain the original data is not maintained, this may result in RTR batches that have no corresponding independent replicate scan.
- All testing data (videotapes and data forms) shall be subjected to verification and validation using WIPP WAP compliant procedures.
- The WIPP WAP requirements for independence of the independent technical reviewer must be maintained throughout the process (i.e., the independent technical reviewer can not have performed the original scan or generation of the new testing batch data).
- CARs and/or NCRs associated with the containers and batch reports issued prior to November 26, 1999 must be included in the new testing batch data report. Documentation that the CARs and/or NCRs have been reviewed for conformance (including disposition and closure documentation) with the requirements of the WIPP WAP will be included in the SQA/O data validation checklist. Additional CARs and/or NCRs may be generated during review of the videotapes. Resolution of these additional CARs and/or NCRs shall be included in the new testing batch data report.

Subject: cost estimates and the schedule for INEEL

Date: Wed, 12 Apr 2000 11:17:51 -0600

From: "Walker, Connie" <CWalker@TechLawInc.com>

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Attached is a revised schedule for INEEL, with our folks in bold type. As you shall see, there are a few minor gaps, but with Bruce (or someone) else there, it helps cover the elements. I plan to send him back early (i.e. use him for only a few days), and perhaps send June back early, too, to try and defray costs. Let me know your thoughts, or if you want to have folks reassigned, scope changed, etc. As I said, I just want to do the right thing!

In terms of estimating audit costs, considering the actual costs of the Rocky Audit (which were, in my opinion, too high and will be reduced as we get more familiar with the process) and cost estimates based upon specific assumptions, we offer the following:

1. Initial audit preparation and performance of audit (i.e. observation of audit) = \$20,000-30,000 (depending upon complexity of site and individuals used). This does not include travel, which could range from approximately \$1000 to \$4000, depending upon location.
2. Follow-up audit = \$5,000-\$10,000, again depending upon the individuals used and scope of the follow-up audit. This does not include travel, which could range anywhere from approximately \$0- \$3000, depending upon the scope and location of the audit.
3. Preparation of Report and Final Audit Report Review: 9,000-\$15,000.

Hope this information is useful to you; let me know if you need additional detail.

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