NMED/WIPP Meeting on
Proposed “Operational Efficiencies” Modifications

July 19
9:00 - 12:00

Agenda

- Introduction and Purpose
  Mark Turnbough

- Control Charting/Visual Verification
  followup discussion
  Bob Kehrman

- Operational Efficiencies Mods – overview
  Dale Bignell
  - Data Management
  - Solids Sampling
  - Head Space Gas Sampling
  - Material Parameter Weights

- Review of Data Management proposal
  Stephanie Johansen

- Approach and path forward, next meetings
  Mark Turnbough

- Review action items
  All
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Why Are We Interested in “OE” Permit Modifications?

- Have experience operating under the HWFP for last 2 years
- Have identified change opportunities through re-engineering and process improvement evaluations
- “Operational Efficiencies” mods will provide opportunities for:
  - increasing efficiencies and eliminating redundancies that add no value
  - accelerating cleanup and reducing risk by increasing TRU waste system throughput
  - improving safety to workers and the public
  - reducing costs and not wasting money
while maintaining quality and credibility
Why Are We Interested in “OE” Permit Modifications?

- Proposed changes will maintain:
  - protectiveness of human health and environment at WIPP and Generator Sites
  - compliance with all appropriate regulations and safety requirements
  - data adequacy and quality needed to demonstrate safe and regulatorily compliant shipments to and disposal at WIPP (characterization and confirmation)

Four Proposed Modifications

Today's discussion will focus on “Operational Efficiencies” modifications in the categories of:

- Data Management
- Headspace Gas Sampling
- Solid Sampling
- Materials Parameter Weights

Primary focus this meeting -- *Data Management*
Proposed Modification
"Data Management"

What will be maintained?
• A quality data management system -- raw data generation, reviews, validation and verification, data reports, assessments, etc.

Proposed changes:
• Editorial and formatting
• Reorganize data reviewer responsibilities and eliminate duplicative activities
• Implementation of electronic data management
Proposed Modification
“Headspace Gas Sampling”

What will be maintained?

• Existing VOC concentration Room Based Limits will not be changed
• Direct monitoring for VOC emissions
• Existing action levels will be maintained

Proposed changes:

• Eliminate HWFP requirement for headspace gas sampling and analyses, which are performed to:
  – ensure that Room Based Limits for VOCs are not exceeded
  – confirm assignment of hazardous waste codes
• Enhance the repository monitoring by measuring actual VOC concentrations in closed rooms, in addition to currently existing monitoring
Proposed Modification "Solid Sampling"

What will be maintained?

- Solids will be adequately characterized prior to shipment to and disposal at WIPP

Proposed Modification "Solid Sampling"

Proposed change:

- Eliminate solid sampling requirement as means to confirm characterization of waste
Proposed Modification  
"Material Parameter Weight"

What will be maintained?

- EPA established repository limits will be unchanged
- As part of characterization, parameter weights will continue to be determined and entered on Waste Stream Profile Form for waste streams
- Waste stream parameter weights will continue to be tracked, monitored in WWIS, and reported to EPA

Proposed changes:

- Eliminate estimation of parameter weights on a container by container basis
- For characterization
  - estimate parameter weights on a waste stream basis
  - estimate one weight for the total of cellulosics, plastic and rubber
Overview

- Discussion of Current Process
  - General Data Management Activities
  - Data Produced
  - Data Evaluation
- Proposed Changes
  - electronic data management
  - changes to reviewer responsibilities and documentation requirements
  - editorial changes
- July 2000 Data Management Permit Modification
- Proposed Classification
- Feedback/Conclusions
Data Management Activities

- Generation
- Review
- Validation
- Verification
- Reconciliation
- Transmittal
- Storage

Information is Generated at Three Levels

- Data Generation level - raw data; review, validation, and verification data
- Site Project Level - raw data; validation and verification data
- Permittee Level - verification data, acceptance records
Data Generation Level Information

• Raw Data
  - analytical bench sheet and instrumentation readouts for all calibration standard results
  - sample data (including appropriate data forms)
  - QC sample data
  - sample preparation conditions and logs
  - sample run logs
  - calculation records
  - bench sheets
  - log books
  - Chain of custody forms
  - gas canister sample tags

Data Generation Level Information, cont’d

• Batch Data Report
  - Testing Batch Data Report
  - Sampling Batch Data Report
  - Analytical Batch Data Report
  - On-line Batch Data Report

• Checklists
  - Implemented through Site SOPs
Site Project Level Data

- Waste Stream Profile Form
- Characterization Information Summary
  - Batch Data Report
  - Cross reference of container ID #s to each Batch Data Report
  - Headspace Gas summary
  - TIC Listing
  - Acceptable Knowledge (AK) Summary
  - Real Time Radiography (RTR) and Visual Examination (VE) Summary
  - Data reconciliation with DQOs
- Checklists

Site Project Level Data, cont’d

- Data Validation Summary
- Site Project QA Officer Summary
- Waste Stream Characterization Package
  (generated upon Permittee request)
- EPA Hazardous Waste Manifest
- Land Disposal Restriction Notice
- Nonconformance Documentation
Permittee Level Data

- Audit Report
- Waste Stream Profile Form approval documentation
- Waste Receipt Checklist
- WWIS Reports
  - Waste Emplacement Report
  - Shipment Summary Report
  - Waste Container Data Report
  - Reports of Change Log

Permit Definitions

- Data Evaluation Includes:
  - Data review - determines if raw data have been properly collected and ensures raw data are properly reduced. Occurs at the Data Generation level.
  - Data validation - confirms that the data reported satisfy the requirements of the WAP and are accompanied by signature release. Occurs at the Data Generation and Site Project levels.
  - Data verification - authenticates that data as presented represent the sampling and analysis activities as performed and have been subject to the appropriate levels of data review. Occurs at the Data Generation, Site Project, and Permittee levels.
  - Data reconciliation - not clearly defined in Permit. Involves comparing the results of waste characterization activities with WAP-specified Data Quality Objectives in order to ensure data are adequate to support decisions.
Data Generation Level Evaluation

- Independent Technical Reviewer
  - Proper data generation and reduction
  - Correct calculations
  - No transcription errors
  - Complete QA documentation
  - QC sample results within limits
  - Reporting flags assigned correctly
  - Holding time and preservation requirements met
  - Radiography tapes reviewed as required
  - Field sampling records complete

Data Generation Level Evaluation, cont’d

- Technical Supervisor
  - Data are technically reasonable
  - Data (except radiography tapes) have received independent technical review
  - Complete QA documentation*
  - Holding time requirements met*
  - Radiography tapes have received periodic technical review *
  - Field sampling records complete*

* - duplicates Independent Technical Review responsibility
Data Generation Level Evaluation, cont’d

• QA Officer Review
  - Independent technical and technical supervisory reviews performed as required
  - QA documentation is complete†
  - QC checks properly performed
  - Quality Assurance Objectives met

† - duplicates Independent Technical Review and Technical Supervisor responsibilities

Site Project Level Evaluation

• Site Project QA Officer Review
  - Batch Data Reports complete
  - QC checks performed properly and meet QAOs‡
  - Radiography data complete and acceptable
  - Procedures followed to ensure representative sampling
  - Ensure quarterly data review is conducted
  - Generate Site Project QA Officer Summary

‡ - duplicates QA Officer responsibilities
Site Project Level Evaluation, cont’d

• Site Project Manager Review
  - Independent technical, technical supervisory, and QA Officer reviews performed as required
  - Batch data review checklists complete
  - Data are within established data assessment criteria and meet all applicable QAOs‡
  - Ensure Quarterly Data Review is conducted**
  - Generate Data Validation Summary

** - duplicates responsibility of Site Project QA Officer
‡ - duplicates responsibility of QA Officer and Site Project QA Officer

Site Project Level Evaluation, cont’d

• Conduct Data Reconciliation
• Generate Waste Stream Profile Form (if necessary)
• Generate Characterization Information Summary
  - Site Project QA Officer ensures Characterization Information Summary and Waste Stream Profile Form are consistent with analytical batch data reports
• Enter data in WWIS
Permittee Level Evaluation

- Permittee Data Verification is ensured through the Audit and Surveillance Program and WWIS internal limit checks
- Initial Waste Stream Profile Form approval
- Review shipping records
- Review LDR notice

Operational Efficiencies

- Following implementation of Permit Data Management requirements by the Generator Sites and the Permittees, operational efficiencies were identified
Summary of Proposed Changes

- Revise reviewer responsibilities
- Eliminate Waste Stream Characterization Package
- Clarify data management inconsistencies in the Permit and reorganize data management portions of Attachment B and Attachment B3
- Standardize format and content
- Incorporate Clarifications
- Add the option for electronic data review, validation, and verification

Reviewer Responsibilities - Elimination of Technical Supervisor

- Only unique responsibility of Technical Supervisor is to ensure data are technically reasonable
- The Permit does not contain qualification requirements for the Technical Supervisor
- Ensuring data are technically reasonable will be reassigned to the Independent Technical Reviewer, who has Permit-required qualifications
- Elimination of the Technical Supervisor will expedite data review, validation, and verification at the Data Generation Level. The remaining two levels of review, validation, and verification (Independent Technical Reviewer and QA Officer) are sufficient to ensure data are acceptable to proceed to Project-level validation and verification.
Reviewer Responsibilities - Elimination of Quarterly Data Review

- According to the Permit, the function of the quarterly data review is to ensure that data review, validation, and verification are performed according to procedures.
- The Permittees' Audit and Surveillance Program will ensure that data review, validation, and verification are performed according to procedures.
- The permit modification request will propose elimination of the quarterly data review.

Elimination of the Waste Stream Characterization Package

- Removal of the Waste Stream Characterization Package from the Permit eliminates an unnecessary requirement.
- The Permit currently requires the sites to submit the Waste Stream Characterization Package only upon request of WIPP.
- Elimination of the Waste Stream Characterization Package will not preclude WIPP from requesting additional information from generator sites.
- Additional detailed information is available without specifying the Waste Stream Characterization Package.
Clarification/Reorganization

- Data Management requirements are found both in Attachment B and in Attachment B3
- Numerous requirements are duplicative or inconsistent
- Permit modification request will move most specific data management requirements to Attachment B3 and reorganize information so that personnel at the Data Generation, Site Project, and Permittee levels can more easily identify the applicable requirements
- Permit modification request will incorporate data management-related clarifications that have been issued by CBFO to provide workable interpretation of the Permit

Add the option for electronic review, validation, and verification

- Add an option that all data review, validation, and verification activities conducted by the Independent Technical Reviewer, Technical Supervisor, QA Officer, Site Project QA Officer, and Site Project Manager can be conducted electronically
- Sites can continue to conduct data review, validation, and verification manually or in combination with electronic activities.
- The Site Project Manager will continue to conduct Data Reconciliation manually
- Independent Technical Reviewer, Site Project QA Officer, and Site Project Manager will approve electronic results
July, 2000 Data Management Class 1 Permit Modification

- The new permit modification request will reflect the changes incorporated in the July, 2000 Data Management Permit Modification
- The public will have an opportunity to provide feedback on WIPP data management requirements
- The Permittees would like feedback from NMED on the July, 2000 permit modification request

Classification

- Discussion regarding proper classification of permit modification request
NMED Feedback

Conclusion

• At the next meeting with NMED regarding the Data Management Permit Modification request, WIPP plans to:
  - Present additional information regarding electronic review, validation, and verification
  - Continue discussions regarding the July, 2000 permit modification request (if necessary)
  - Discuss other aspects of the permit modification request as necessary