



New Mexico Environment Department

Waste Isolation Pilot Plant NMED Activities

Radioactive and Hazardous Materials Committee

Tuesday, September 16, 2014

Overview

- NMED Hazardous Waste Permit
 - Overview of Waste Characterization and Confirmation
- NMED DOE Oversight Bureau Activities

Process of Shipping Waste from LANL to WIPP

- Multiple Regulatory Agencies Involved
 - NM and US Department of Transportation (DOT)
 - US Nuclear Regulatory Commission (NRC)
 - US Environmental Protection Agency (EPA)
 - NM Energy, Minerals, and Natural Resources Department (EMNRD)
 - NM Environment Department (NMED)

Overview of Entire Process



Generator Sites



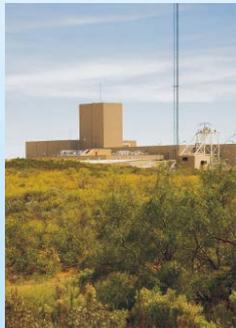
Characterization



Confirmation



Transportation system includes satellite tracking



WIPP Site



CH waste handling



Waste conveyance takes waste 2,150 feet underground



CH waste transported to disposal room



CH waste disposal



RH waste handling in shielded facility cask



RH waste transported to disposal room



RH waste disposal

Waste Characterization

Prior to shipment to the WIPP Site

- All generator sites must characterize the waste to meet Permit requirements.
- Ensuring the absence of prohibited items.

Characterization required by Permit:

- Acceptable Knowledge (AK)
- Real-Time-Radiography (RTR)
- Visual Examination (VE)

Generator sites must have the AK and either RTR or VE for each drum that ships to WIPP.

Other characterization techniques are regulated by EPA, NRC, and DOT

Overview of Characterization Process



Generator Sites
Waste Retrieval



Acceptable Knowledge



Sorting



Repackaging



Visual Examination

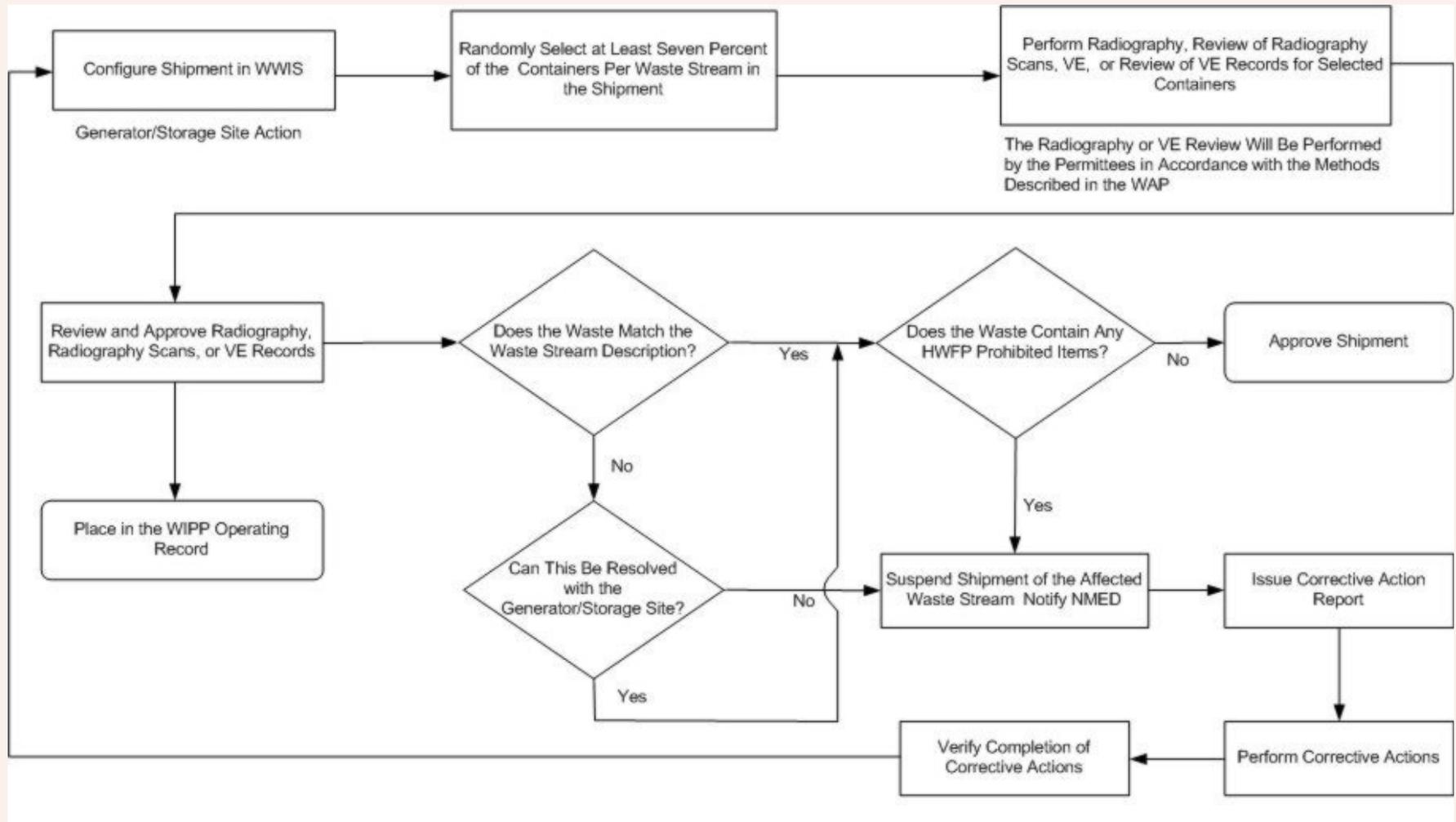


Real Time Radiography



Confirmation

Overview of Confirmation Process



Waste Stream Profile Forms (WSPF)

- Verification that all required elements of the WSPF are present and waste characterization information meet acceptance criteria required for Waste Analysis Plan (WAP) compliance.
- Radiography or VE data are obtained, sites then prepare and submit the WSPF for DOE's approval.
- DOE must approve and submit completed WSPFs to NMED prior to waste stream shipment.

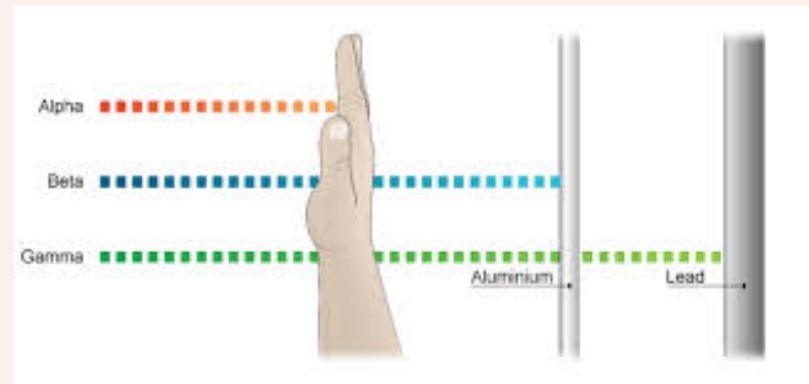
Audit & Surveillance Program

(Permit Attachment C6)

- Ensures that:
 - 1) generator/storage sites that transport waste to WIPP conduct waste testing in accordance with the WIPP Waste Analysis Plan (WAP)
 - 2) information supplied by each site satisfies the waste screening and acceptability requirements of the WAP
- NMED staff observe audits and surveillances to validate the implementation of WAP requirements
- A final audit report is submitted for NMED review and approval.
 - Without NMED approval of the initial audit the sites may not ship waste.
 - Each generator site must recertify each year.

DOE Oversight Bureau - Environmental Monitoring at and around WIPP

- Exhaust Air, Stations A and B
- Ambient Air
- General Environmental
 - Soil
 - Sediment
 - Surface water
 - Vegetation
- Penetrating radiation (gamma)



Exhaust Air, Stations A & B

- Reviewing Data
 - January and February 2014. Station A, Station B, QC samples
 - March, Station B, QC samples
- Samples at analytical laboratory for isotopic analysis
 - March, Station A, QC samples
 - April and May, Station A, Station B, QC samples
 - June, July and August, Station A, Station B, QC samples
- 158 filter samples (individual and composite) have been submitted for isotopic analyses.

Ambient Air Monitoring

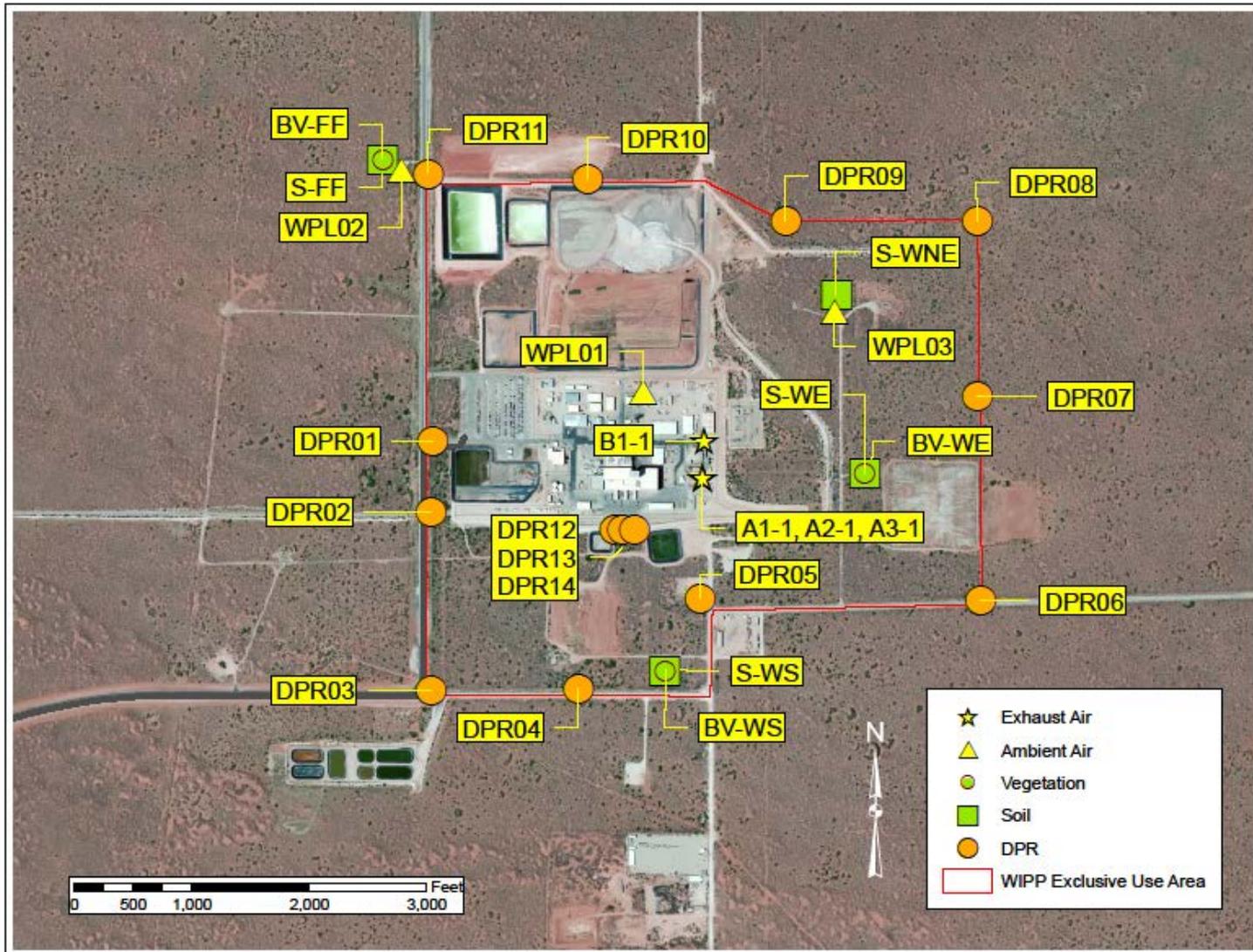
- Final data submittal released
 - February 21 to 28, 2014
 - February 28 to March 11, 2014
 - March 11 to 25, 2014
 - April 2014
 - May 2014
- June 2014 samples are at analytical laboratory for isotopic analysis
- A total of 40 samples have been submitted for isotopic analyses
- Starting July 1, resumed quarterly sample composites and analysis

General Environmental Monitoring at WIPP and Vicinity

Sample Type	Number of Samples	Status
Sediment	6 +1	Undergoing data reduction and review
Surface Water	3 +1	Undergoing data reduction and review
Soil	18	Undergoing data reduction and review
Vegetation	18	Undergoing data reduction and review

Penetrating Radiation Monitoring

- January to March 2014
- April to June 2014
- A total of 20 locations are monitored
 - 14 locations at WIPP Site
 - 6 in surrounding area



What Can the Data Tell Us?

- Extent of contamination in the environment
- Impact of the event on the environment
- Potential impact on human health
- Provide information to policy makers

Conclusions

- The New Mexico Environment Department continues to aggressively regulate and monitor WIPP.
- Ensures compliance with the Hazardous Waste Facility Permit and all applicable hazardous waste regulations to protect human health and the environment.

For more information...

- NMED Radiological Release Event
 - <http://www.nmenv.state.nm.us/NMED/Issues/WIPP2014.html>
- NMED WIPP Permit Information
 - <http://www.nmenv.state.nm.us/wipp/>
- DOE Oversight Bureau
 - http://www.nmenv.state.nm.us/DOE_Oversight/

Questions?