

**RCRA, the Los Alamos National
Laboratory Hazardous Waste Facility
Permit and Consent Order**

NNMCAB Meeting

May 30, 2012

New Mexico Environment Department

www.nmenv.state.nm.us

What is “RCRA”

- Resource Conservation & Recovery Act
 - Subtitle C – Hazardous Waste Management
 - Subtitle D – Solid Waste Management
 - Subtitle I – Underground Storage Tanks
- Hazardous & Solid Waste Amendments

What is “RCRA”

- Amends Solid Waste Disposal Act of 1965
- RCRA Passed in 1976
- Regulations Promulgated in 1980
- CERCLA Passed in 1980

What is “RCRA”

- Defines Hazardous Waste
- Manage Waste from “Cradle to Grave”
- Sets Standards for “TSD Facilities”
 - T = Treatment
 - S = Storage
 - D = Disposal
- Defines Permitting Process

What is “RCRA”

- HSWA – Hazardous & Solid Waste Amendments of 1984
 - Land Disposal Restrictions (LDRs)
 - Corrective Action at RCRA Facilities
 - Waste Minimization
 - Permit Requirements

The RCRA Permitting Process

- Permit Process Requirements in 40 CFR 270 (and state authority)
- Requirements in 40 CFR 264
- Hazardous Waste Permits Last for 10 Years
- Only TSD Facilities Need Permits
- Public Participation Required for Permits and Major Modifications

Why RCRA Applies to LANL?

- LANL Generates Hazardous Waste
- LANL is a TSD Facility
- Only Hazardous Waste and Constituents
 - Includes Hazardous Waste Mixed with Radioactive Waste
 - Much of “Non-mixed” Radioactive Waste Regulated by DOE under AEA (Atomic Energy Act)

RCRA-Covered LANL Activities

- Hazardous Waste Generation
- Hazardous Waste Storage
- Hazardous Waste Treatment
- Past Disposal
- Mixed Waste
- Corrective Action
- Public Participation

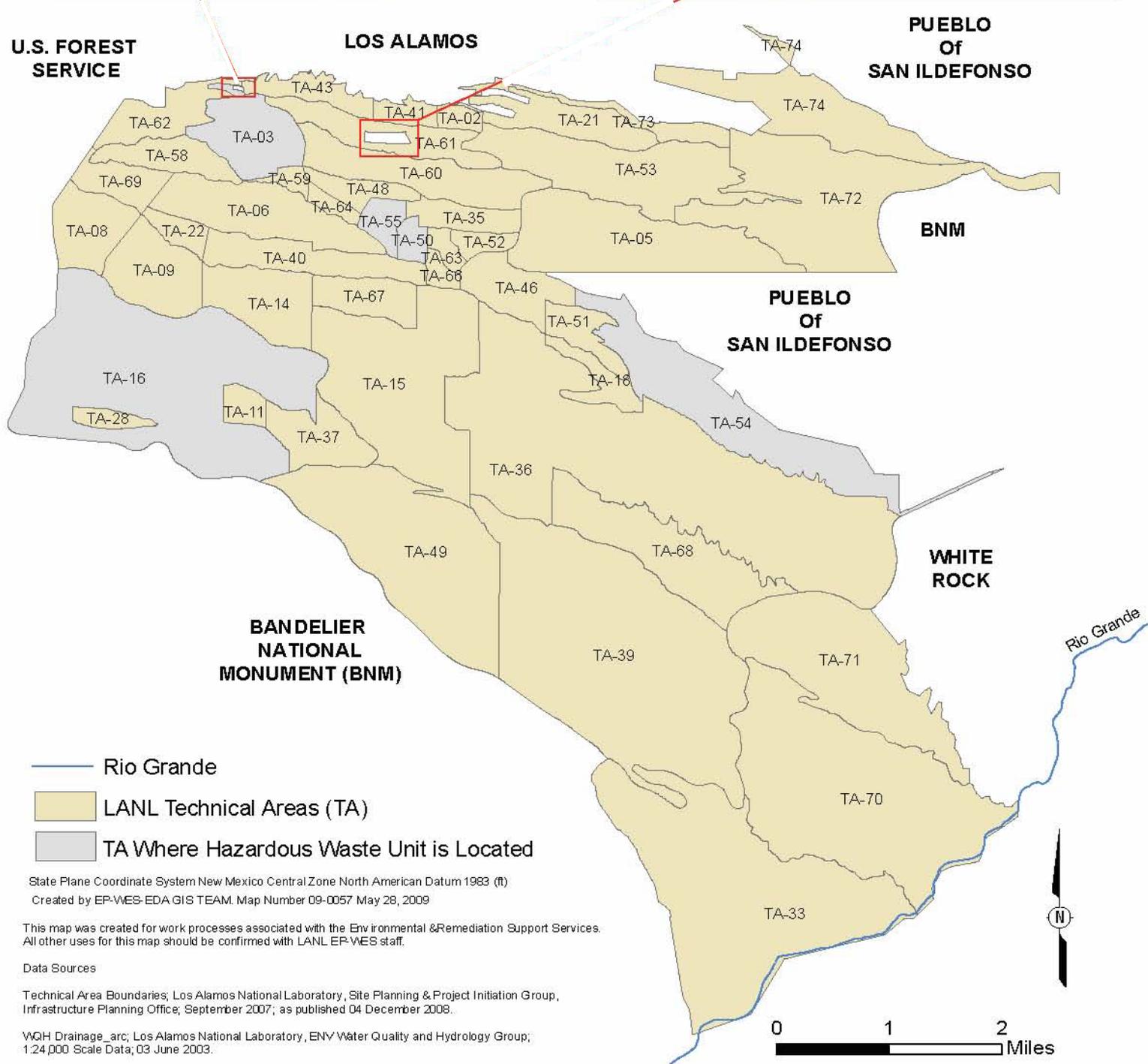
Where are the Hazardous Waste Management Units?

- Technical Areas (TAs) 3, 14, 16, 36, 39, 50, 54
- Hazardous Waste Management Units
 - 24 Permitted Units
 - Interim Status Units
- Corrective action (non-Consent Order) LANL-wide

U.S. FOREST SERVICE

LOS ALAMOS

PUEBLO Of SAN ILDEFONSO



— Rio Grande

LANL Technical Areas (TA)

TA Where Hazardous Waste Unit is Located

State Plane Coordinate System New Mexico Central Zone North American Datum 1983 (ft)
Created by EP-VES-EDA GIS TEAM. Map Number 09-0057 May 28, 2009

This map was created for work processes associated with the Environmental & Remediation Support Services. All other uses for this map should be confirmed with LANL EP-VES staff.

Data Sources

Technical Area Boundaries; Los Alamos National Laboratory, Site Planning & Project Initiation Group, Infrastructure Planning Office; September 2007; as published 04 December 2008.

WQH Drainage_arc; Los Alamos National Laboratory, ENV Water Quality and Hydrology Group; 1:24,000 Scale Data; 03 June 2003.

0 1 2 Miles

LANL's Current Permit

- Issued Current Permit November 30, 2010
- Effective on December 30, 2010
- 10 Year Term
- The Current Permittees:
 - U.S. Department of Energy
 - Los Alamos National Security, LLC

What Does the Permit Cover?

- State and federal regulation of hazardous waste management
 - Storage and treatment
 - “Closure” of waste management facilities
 - Schedules
- Hazardous Component of “Mixed Waste”
- Permits the operations of 24 hazardous waste management units
- Corrective action activities not covered by the Consent Order
- Remedies for noncompliance
- Public participation

What the Permit Does Not Cover

- Radionuclides
- Air emissions
- Water discharges
- Testing and experimental activities
- Weapons development and manufacture
 - unless hazardous waste generation is involved

Permit Structure

PART 1: GENERAL PERMIT CONDITIONS

- General requirements for all hazardous waste management units (Units)
 - Duration of the permit
 - NMED's authority to inspect
 - Definitions
 - Information Repository
 - Community Relations Plan
 - Compliance schedule

Permit Structure

PART 2: GENERAL FACILITY CONDITIONS

- Requirements for all permitted Units
 - Authorized wastes
 - Waste characterization requirements
 - Security, inspection, and training requirements
 - Preparedness and prevention
 - Contingency plan
 - Record keeping

Permit Structure

PART 3: STORAGE IN CONTAINERS

- Condition of containers
- Container management
- Container labeling
- Requirements for liquids in containers
- Any unit-specific requirements



Container Storage at TA-54

Permit Structure

PART 4: STORAGE & TREATMENT IN TANKS

- Tank system integrity
- Liquids in tanks
- Prohibition of ignitable or reactive wastes

Permit Structure

PART 9: CLOSURE

- Requirements for closure of Units
 - Closure requirements for indoor, outdoor, and regulated units
 - Closure performance standards
 - Closure plans
 - Closure reports

Permit Structure

PART 10: POST-CLOSURE CARE

- Requirements for waste or waste residues allowed to remain at a Unit
 - Post-closure care plans
 - Notification
 - Record-keeping

Permit Structure

PART 11: CORRECTIVE ACTION

- Requirements for releases from a Unit to the environment.
- Addresses:
 - Fence-to-fence (including off-site migration)
 - Cleanup standards
 - Sampling and analytical methods
 - Drilling and well installation
 - Risk assessment
 - Reporting
 - Groundwater monitoring
 - Long-term monitoring and maintenance

Permit Structure

Permit Integrates with Consent Order

■ Consent Order

- “Legacy” waste and release sites
- Covers groundwater cleanup and MDA remedies
- Permitted Units are not covered by the Consent Order
- Facility-wide groundwater monitoring and cleanup

■ Permit Corrective Action Chapter

- “Future” waste sites
- Covers releases from Units
- Closure and post-closure of Units
- Long-term monitoring and maintenance of sites cleaned up under Consent Order
- Corrective action after Consent Order terminates

Permit Structure

■ ATTACHMENTS

- Attachment A –TA unit descriptions
- Attachment B - Waste codes
- Attachment C – Waste Analysis Plan
- Attachment D – Contingency Plan
- Attachment E – Inspection Plan
- Attachment F – Personnel Training Plan
- Attachment G – Closure Plans
- Attachment H – Post-closure Plans (reserved)
- Attachment I – Compliance Schedule
- Attachment J – Hazardous Waste Management Units
- Attachment K – SWMUs and AOCs
- Attachment L – Off-site facilities
- Attachment M – reserved
- Attachment N – Figures
- Attachment O – Long-term Maintenance and Monitoring Plans (reserved)

Consent Order

- Consent Order signed March 1, 2005
- Revised June 18, 2008
 - Modification to Tables XII-2 and XII-3 and remove footnotes to eliminated conflict
- Revised April 20, 2012
 - Modification periodic groundwater monitoring requirements, submittal dates for General Facility Information, and aggregate area to site specific reporting
- Extensions granted to accommodate TRU waste removal from TA-54
 - 33 extensions granted for corrective action submittals – ranging from 1 month to 2 years (as of April 30, 2012)

NNMCAB Involvement

- Permit Modifications
 - Remedy selections (MDAs G, H, L)
 - TA-63 Transuranic Waste Facility
 - TA-16 Open Burn
 - Closure Plans
- Provide Public Comment
- Participate at Public Hearings
- Get Stakeholder Participation

Where to Find the Permit and Corrective Action Documents?

- NMED webpage:
<http://www.nmenv.state.nm.us/hwb/lanlperm.html>
- LANL Electronic Reading Room: <http://eprl.lanl.gov>
- Hazardous Waste Facility Permit
- Permit Modifications
- Corrective Action Documents
- Public Notices

John E. Kieling
Hazardous Waste Bureau Chief
New Mexico Environment Department
2905 Rodeo Park Drive East Bldg. 1
Santa Fe, New Mexico 87505
505.476.6035
john.kieling@state.nm.us

