Technical Area 16-399 Burn Tray Closure Plan Class 2 Amendment Public Meeting

Environmental Protection & Compliance-Waste Management Programs

July 12, 2022

LA-UR-22-26612

Agenda

- Goals and Ground Rules
- Introduction
- Unit Description
- Closure Plan History
- Closure Activities
- Closure Certification Report
- Class 2 Closure Plan Amendment
- Public Comment Procedure
- Questions

TA-16-399 Burn Tray
prior to 2019

Goals and Ground Rules

- Goals: 1) present proposed changes to the TA-16-399 Burn Tray Closure Plan
  2) show the public how to provide comment regarding the proposed changes
  3) answer questions and listen to comments from the audience
- Ground Rules:
  - Hold questions until the time designated by the speaker or post in chat
  - Honor the process by being respectful and courteous
  - Identify yourself before speaking
  - Please keep to the subject of this meeting
  - Respect the speaking party and allow them to finish their statement prior to responding
  - Yield the floor if requested

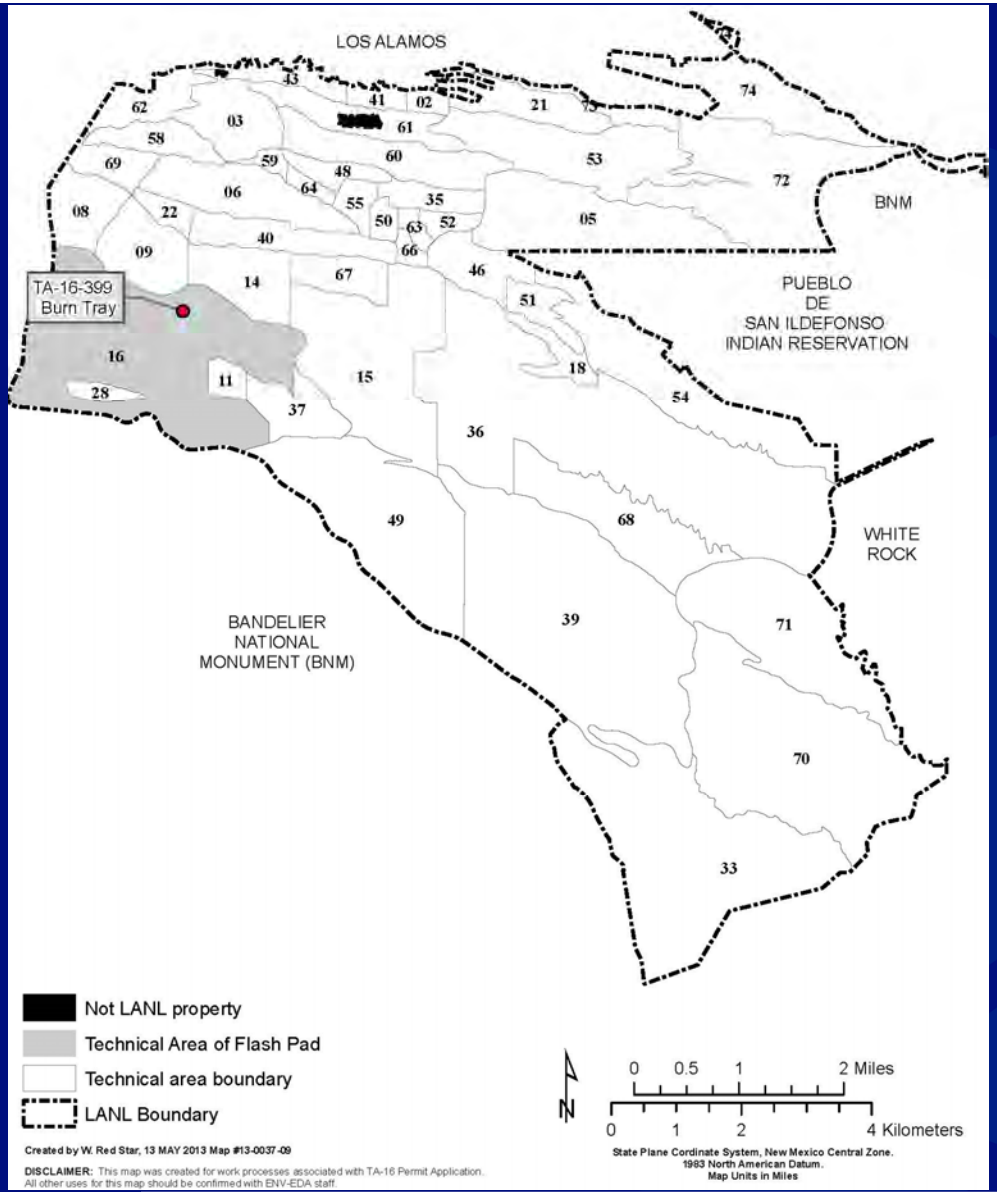
Karen Armijo
Department of Energy (DOE),
National Nuclear Security Administration (NNSA),
Los Alamos Field Office

Los Alamos National Laboratory (LANL)

- Established in 1943 to support the Manhattan Project
- LANL is an NNSA site, oversight of NNSA mission is performed by the NNSA Los Alamos Field Office (NA-LA)
  - Mission: To strengthen United States' security through the military application of nuclear energy and by reducing the global threat from terrorism and weapons of mass destruction
- Operated by Contractors for the Government since 1943
  - Triad National Security, LLC (Triad) won the Management & Operating contract in 2018 and presently operates the site for NA-LA
  - NA-LA and Triad are two of four co-Permittees in the Resource Conservation and Recovery Act (RCRA) Hazardous Waste Facility Permit for LANL
    - Closure of this unit is under the scope of Triad

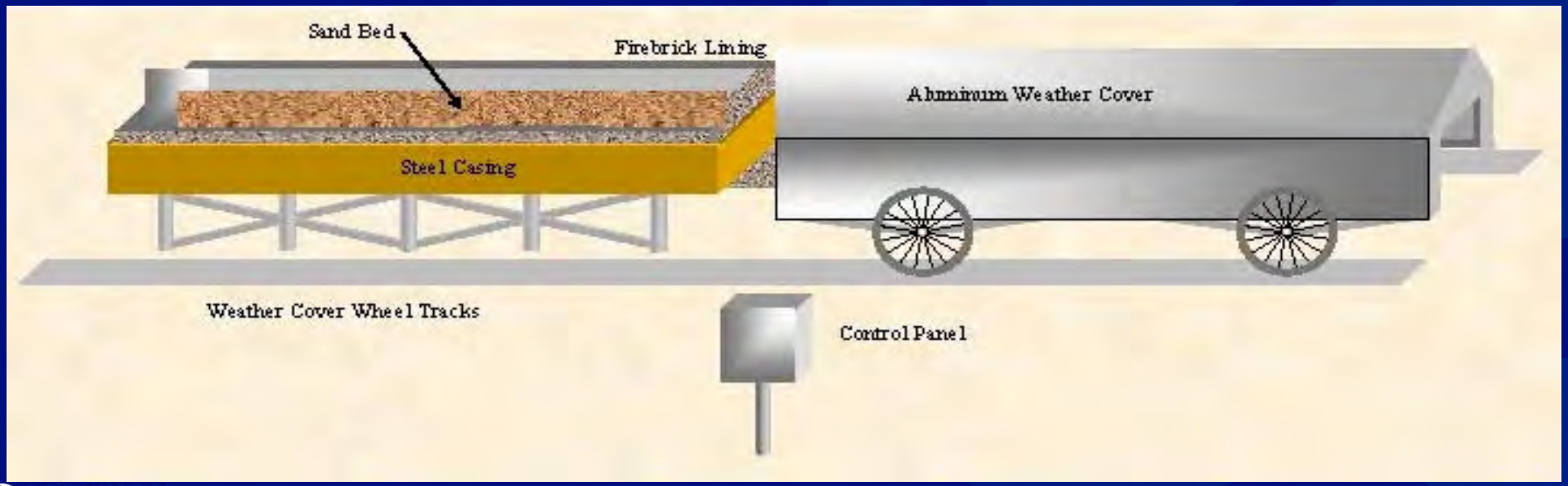
Luciana Vigil-Holterman
Triad National Security, LLC
Los Alamos National Laboratory

Unit Description



Unit Description (continued)

- Built in 1951
- Used to treat waste explosives until 2012
- Included in RCRA permit applications since November 1980



Closure Plan History

- Closure Plan issued by the New Mexico Environment Department's Hazardous Waste Bureau in November 2010
  - Description of steps and schedule needed to remove hazardous waste residues to satisfy closure performance standards
    - Minimize the need for further maintenance, and
    - Control, minimize or eliminate post-closure escape of hazardous constituents
- Revisions to Closure Plan requested in May 2012
  - After comments from the Hazardous Waste Bureau, the Closure Plan was revised in December 2012
- Notification of public comment period by the Hazardous Waste Bureau in November 2013
- Final Closure Plan issued in January 2019

Closure Activities

- April 2019
  - Removed electric box, burn tray tracks, rubber matting under the tracks, burn tray cover, firebrick, and the burn tray

Pictures depicting the burn tray before removal and during disassembly

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Closure Activities (continued)

- April 2019 (continued)
  - Concrete pad was broken up in place and consolidated into a pile for characterization
  - After characterization, the concrete was disposed of as construction debris

Picture depicting breaking up of concrete pad and a picture of the staged pile and smoothed new surface

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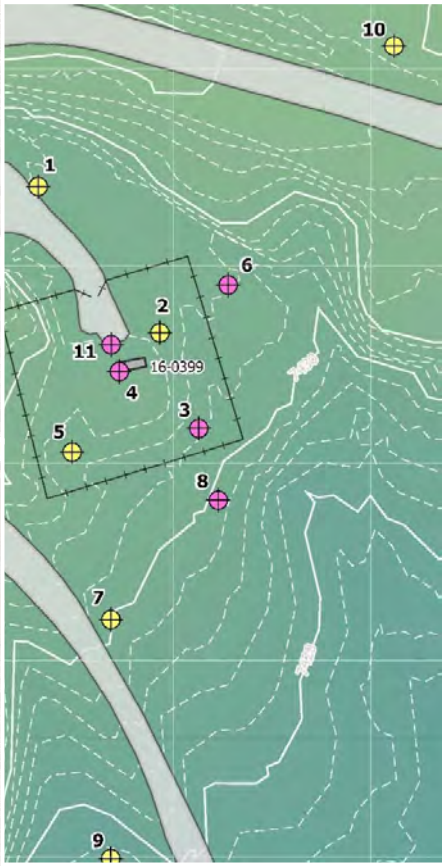
Closure Activities (continued)

- May 2019
  - Per the closure plan, 16 soil samples (including one duplicate sample) were collected from 11 locations at and surrounding the TA-16-399 Burn Tray



Soil sample locations, sampling activities, and explosives spot test example

Closure Activities (continued)

- Analytical laboratory quality assurance/quality control issues required additional soil sampling
- Risk assessment calculations indicated analytical results presented unacceptable levels of explosives compounds
  - Specifically, in a location under the former concrete pad
  - Based on discussions with the Hazardous Waste Bureau soil removal was deemed the appropriate path forward

Closure Activities (continued)

- December 2019
  - Soil was excavated soil
  - Additional soil samples were collected from the excavated surface and at depth samples; both analyzed for explosives compounds
  - Concentrations of explosives compounds were decreased and within acceptable residential risk levels after excavation

Closure Certification Report

- Closure Certification Report for TA-16-399 Burn Tray closure submitted in February 2020
- In November 2020 the Hazardous Waste Bureau review determined that a revised risk assessments was necessary
  - Review required inclusion of past (2009-2013) and after excavation (December 2019) analytical data into risk assessment analyses
- Response and revised human health and ecological risk assessments submitted to the Hazardous Waste Bureau in March 2021
  - Risk assessments concluded that risk levels were calculated to be within acceptable levels for clean closure

Closure Certification Report (continued)

- The Hazardous Waste Bureau responded in May 2021 instructing the Permittees to conduct further data analysis to determine if risk was analyzed correctly
- A meeting was held with the Hazardous Waste Bureau in June 2021
  - Hazardous Waste Bureau suggested removal of soil in the area of elevated dioxin/furan concentrations in the area to decrease risk
- In June 2021, the Permittees proposed removal of additional soil and verification sampling of two locations to reduce the risk associated with dioxin/furans and barium concentrations at the site
- Hazardous Waste Bureau approved the request in August 2021

Closure Certification Report (continued)
Soil Removal Activities 2021

- In November and December 2021, soil removal activities and confirmation soil sampling were conducted in two locations
  - South of the unit to address dioxin/furan congeners
  - Directly below the former Burn Tray to address risk associated with barium concentrations

Southern excavation area

Excavation within fenced area
(facing southwest)

Excavation within fenced area
(facing northeast)

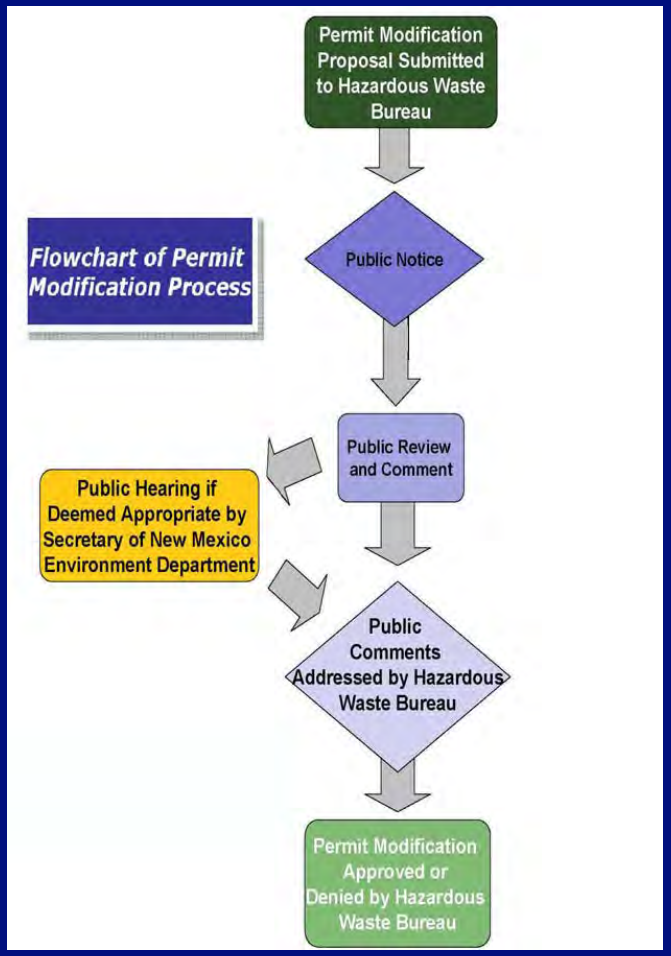
Closure Certification Report (continued)

- In January 2022, the Permittees initiated and held a meeting with the Hazardous Waste Bureau to explain unexpected outcomes associated with soil removal activities
  - Risk associated with dioxin/furan congeners decreased
  - Risk associate with barium increased
  - Unexpected detection of explosives compounds in excavated area under the location of the former Burn Tray
- Permittees proposed that a Class 2 permit amendment was warranted under the regulations and the Hazardous Waste Bureau agreed

Class 2 Amendment to TA-16-399 Burn Tray Closure Plan

- In June 2022, the Permittees submitted a Class 2 Amendment to the Closure Plan for the TA-16-399 Burn Tray
  - Revisions to the Closure Plan include proposal to removal additional soil from the location of the former Burn Tray
  - Soil removal will be concentrated on the mound of soil that was likely used as fill when the Burn Tray was installed in 1951
    - Information available indicates the source of elevated soil contaminant concentration
  - Confirmation soil sample locations will be analyzed for all constituents of concern
    - Volatile organic compounds are not a constituent of concern
  - Step out soil sampling locations will be selected based on depth and volume of soil removal and overall site knowledge

Public Comment Procedure



- Review permit modification request and submit comments to Hazardous Waste Bureau before the end of the public review and comment period (June 9, 2022 to August 8, 2022)
- Hazardous Waste Bureau reviews and responds to public comments regarding the permit modification request
- Hazardous Waste Bureau issues final decision

How to make comments

- Submit written or email comments:

  Neelam Dhawan, Program Manager
  New Mexico Environment Department
  Hazardous Waste Bureau
  2905 Rodeo Park Drive East, Building 1
  Santa Fe, New Mexico 87505
  Email: neelam.dhawan@state.nm.us
  Public comment portal: https://nmed.commentinput.com/?id=rtKe4on

- Comments must be made in writing or via e-mail and include the commenter's name and address

Questions?