



New Mexico Environment Department

Overview of Regulation of Radioactive and Hazardous Materials

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Radioactive and Hazardous Materials Interim Committee





Radioactive and Hazardous Materials Topics

Summary of the New Mexico Environment Department's authorities at higher-profile facilities

Facility	Hazardous Wastes	Radioactive Wastes
Upstream oil and gas	Not regulated	Regulated
Los Alamos National Lab	Regulated	Not regulated*
Sandia National Labs	Regulated	Not regulated*
Waste Isolation Pilot Plant	Regulated	Not regulated*
Holtec CISF/Spent Nuclear Fuel	Not regulated	Not regulated

*When a radioactive waste is mixed with a hazardous waste, we call that a mixed waste, and NMED does have some jurisdiction related to mixed wastes



Los Alamos National Laboratory Permit Renewal

- **In June 2020, LANL submitted a Renewal Application for its RCRA Permit.**
- **NMED reviewed the Application and determined it to be Administratively Incomplete. NMED is waiting for additional information from the U.S. Department of Energy (DOE).**
- **Before submitting the revised Application, DOE submitted the Class 2 Permit Modification to add storage and treatment to TA-60.**
- **On March 29, 2023, DOE requested that NMED make a determination on the Class 2 Permit Modification, prior to DOE submitting the revised Renewal Application.**

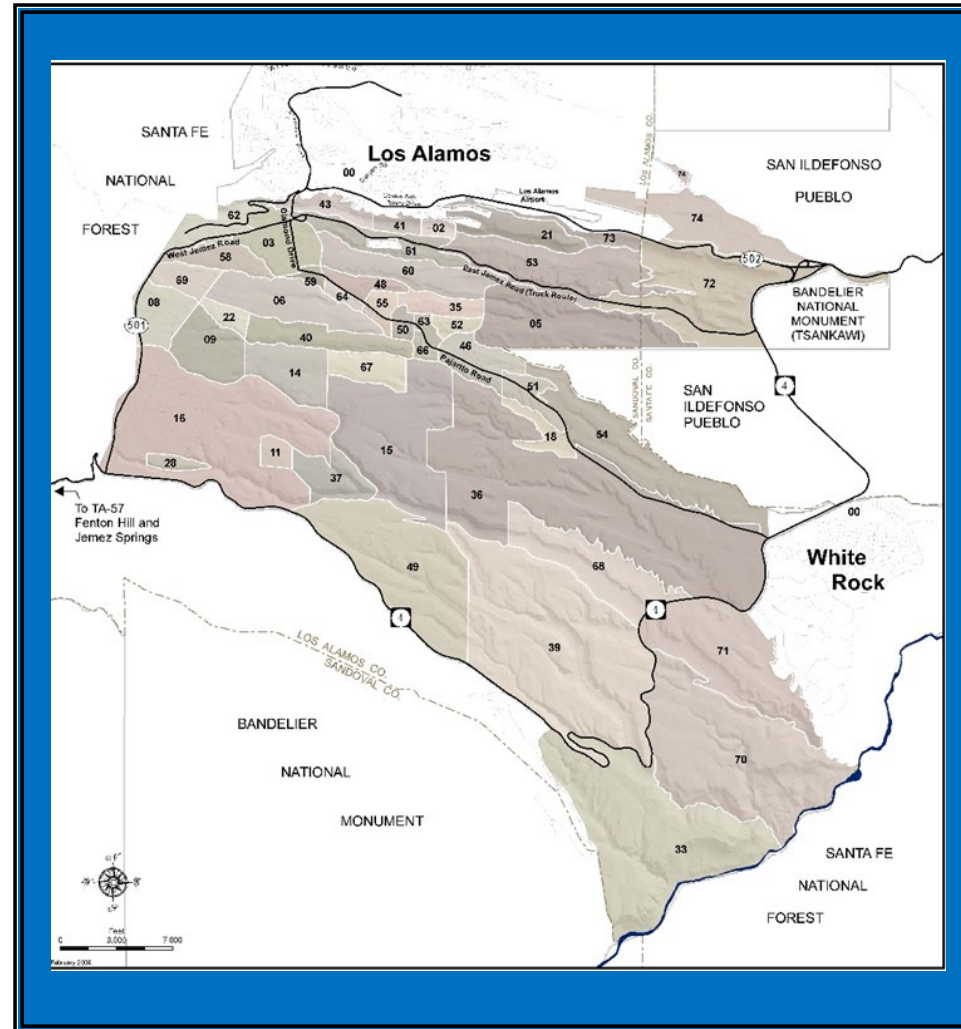


Image credit: Associated Press



Los Alamos National Laboratory 2016 Consent Order

- **Compliance Order on Consent (Consent Order) was signed by NMED and DOE in June 2016.**
- **The Consent Order requires DOE to conduct corrective action for releases of contamination from legacy sites and contamination of groundwater at LANL.**
- **The Consent Order is an “enforceable document” pursuant to federal and state law. With few exceptions, it is the sole mechanism for enforcing corrective action activities at LANL.**
- **DOE and NMED agreed on 14 milestones for Federal Fiscal Year 2023, which are subject to stipulated penalties.**





Los Alamos National Laboratory 2016 Consent Order

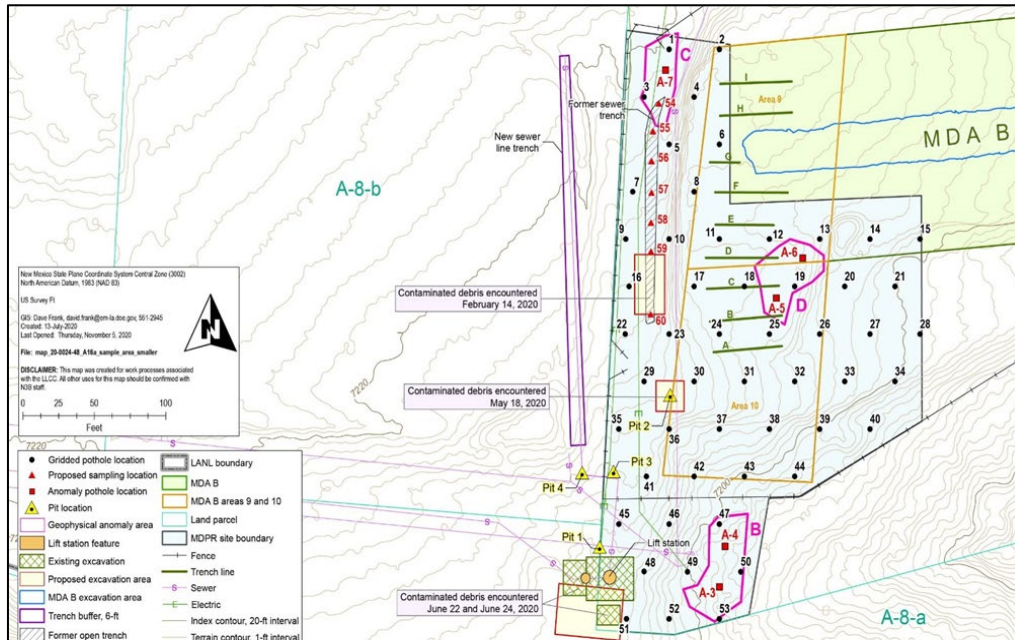
Example: LANL did not commit to enforceable milestones to install and monitor wells in 2020-21.



- **During the Annual Planning Process for Fiscal Year 2021, NMED and DOE could not reach consensus, and entered into mandated Dispute Resolution that ended in January 2021 without resolution.**
 - **In February 2021, NMED filed a civil complaint in First Judicial District Court of New Mexico seeking to terminate the 2016 Consent Order and negotiate new terms that expedite cleanup of legacy waste.**
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- **In March 2021, DOE moved this action to the United States District Court.**
 - **Since March 2021, NMED and DOE have engaged in discussions for a potential settlement.**



Los Alamos National Laboratory Middle Delta Prime (“DP”) Road



- Hazardous and radioactive debris were first discovered near Middle DP Road in February 2020.
- Nearby Material Disposal Area (MDA) B was used for disposal of hazardous and radioactive waste in mid-1940s and could be a potential source for these debris.
- MDA B was remediated in 2011, and land parcels were transferred from DOE to Los Alamos County.

- DOE is still implementing NMED-approved assessment work plan.
- The scope of work increased with discovery of additional contamination.
- Assessment report is due to NMED six months after field activities are complete.



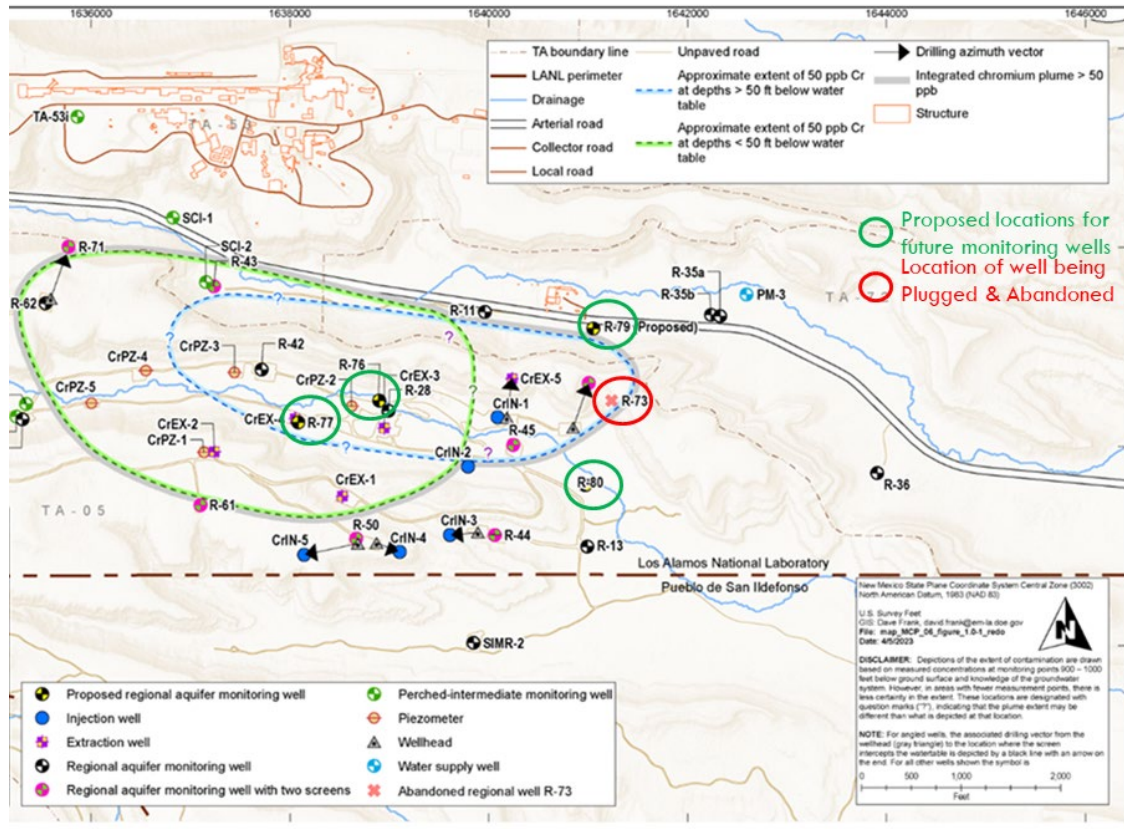


Los Alamos National Laboratory Hexavalent Chromium Interim Measure Update

NMED is in the process of reviewing the chromium Interim Measures (IM) and Characterization Work Plan submitted in September 2022.

The intention of this work plan is to fulfill the data gaps required to complete an evaluation of the potential remedies.

- Unanticipated increases in hexavalent chromium concentration from nearby monitoring wells resulted in the NMED direction to shut off injection operations beginning April 1, 2023.
- Additional monitoring wells to investigate the unfavorable response of the IM are needed.
- NMED is requiring a proposal for alternative injection locations that are outside the boundary of the plume.





Waste Isolation Pilot Plant Operating Permit Renewal

- **Renewal application submitted to NMED March 31, 2020.**
- **Class 3 Permit Modification for New Panels 11 and 12 was submitted to NMED in July 2021.**
- **NMED requested this Class 3 Permit Modification be combined with Permit Renewal Application in order to focus on one public hearing addressing both items.**
- **NMED reviewed the combined request and Issued a Draft Permit on December 20, 2022, for 60-day public comment period, followed by a 60-day extension due to Legislative Session.**



Image credit: Associated Press News



Waste Isolation Pilot Plant Operating Permit Renewal

Next Steps

- **Negotiations set for end of June 2023**
 - ▣ **Between NMED-WIPP Permittees-Stakeholders**
- **Public Hearing currently planned for late summer 2023**
- **Followed by 5-6 months of post hearing activities**
 - ▣ **Findings of Fact/Conclusion of Law**
 - ▣ **Final Hearing Officer Report with Recommendation**
- **Final decision by NMED planned for early 2024**



Kirtland Air Force Base Bulk Fuels Facility Spill

- **Success in greatly reducing the off-base ethylene dibromide (EDB) contamination in the groundwater utilizing the off-site groundwater system.**
- **Assessment of contamination in the deep soils in the source area at the Bulk Fuels Facility needs to be done to select a remedy to clean up the site.**
- **Groundwater and subsurface soil vapor monitoring is ongoing using methods proposed by the Air Force between 2016 and 2018, during past pilot studies.**
- **NMED has concerns that current sampling methods may not be generating representative site data.**



- **NMED required the Air Force update work plans to be compliant with KAFB's RCRA Permit and EPA Guidance – Due July 31, 2023.**
- **Data obtained by collecting samples using standard methods will be evaluated to determine if past data is representative of site conditions.**



Emerging Contaminants: PFAS

Safe Drinking Water Act

Regulate as contaminants:

- ❑ PFHxS, HFPO-DA (Gen-x)
- ❑ PFNA, PFBS

MCL Goal for:

- ❑ PFOA -proposed as 4ppt, goal is 0
- ❑ PFOS -proposed as 4ppt, goal is 0
- ❑ PFHxS
- ❑ HFPO-DA (Gen-x)
- ❑ PFNA
- ❑ PFBS

CERCLA/RCRA

CERCLA

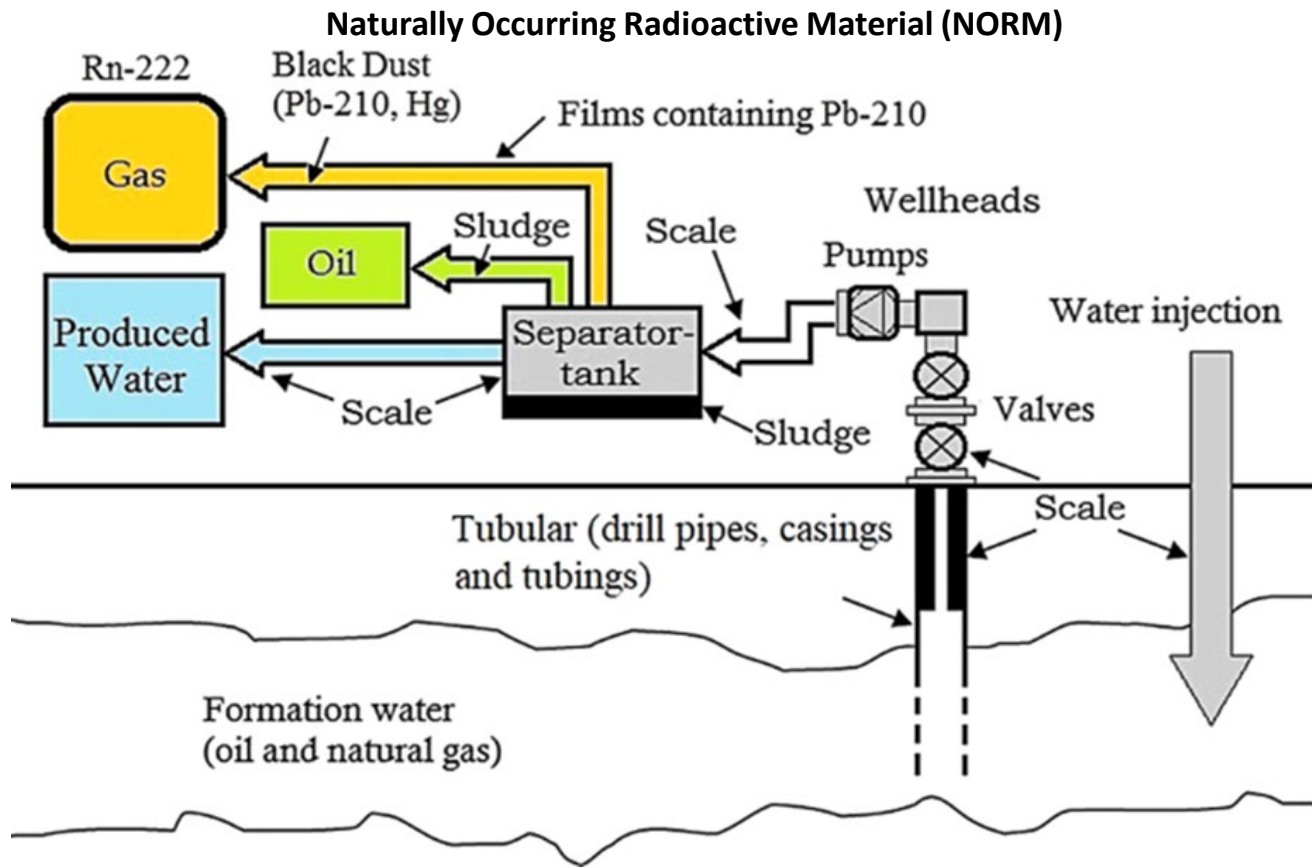
- ❑ Request for information: deadline 6/12/2023
- ❑ CERCLA - Designated PFAS and PFOA as hazardous substances pursuant to CERCLA EPA-HQ-OLEM-2022-0922

RCRA

- ❑ August 2023-PFOA, PFBS, PFOA, and GenXas Appd. VIII hazardous constituents and clarify that corrective action may include wastes that meet the statutory definition of hazardous waste



Radiation Control Act and Upstream Oil and Gas Industry





Radiation Control Act and Upstream Oil and Gas Industry

- **A review of survey results provided by Oil and Gas Operators indicates 53 sites with potential Regulated NORM. RCB is currently contacting these Five Operators to determine if Licensing is required.**
- **As of March 2023 – Apache Corporation has been specifically licensed as a Regulated NORM Generator. RCB is currently processing license applications for three NORM service providers.**
- **As of April 2023 – RCB has issued two notices of violation to EOG Resources and Lotus LLC for violations related to 20.3 NMAC.**





Upstream Oil and Gas Industry



NMED activities include:

- **Conducting field verifications of industry survey results with confirmatory laboratory analysis where appropriate.**
- **Licensing Oil and Gas Operations and Service Providers.**
- **Enhancing RCB's Database to include NORM activities.**
- **Revising NORM Oil and Gas Regulations.**

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