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New Mexico Environment Department  
Hazardous Waste Bureau  
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SUBJECT: Support for New Mexico Environment Department (NMED) Statement of Basis for Selection of Remedy for Corrective Action at Los Alamos National Laboratory's (LANL's) Material Disposal Area C (MDA C)

Dear Ms. Dhawan:

I strongly support the New Mexico Environment Department's call for maximum protection of human health and the environment and to ensure that our drinking water resources are protected by comprehensive cleanup of Los Alamos National Laboratory. Radioactive and hazardous wastes in the ground under LANL must be excavated.

In 2021, LANL's cleanup contractor, submitted a preferred alternative to the NMED to "cap and cover" an 11.8 acre dump called, MDA C, and leave the contaminated wastes permanently buried in unlined pits and shafts. I strongly oppose N3B's proposal because it does not contain the waste and leaves the waste for future generations to take care of.

In September 2023, NMED determined that the selected remedy for MDA C must consist of waste excavation, characterization, and appropriate disposal of the buried waste. NMED also stated that the selected remedy must also include an active and passive soil-vapor extraction system to remove the volatile organic compounds detected in the soil. I wholeheartedly support NMED's leadership exhibited in its proposed remedy.

I support a requirement of characterization and a modern engineered landfill as an alternative to cap and cover. All buried waste must be characterized in order to ensure a successful remediation. All transuranic waste must be sent to the Waste Isolation Pilot Plant (WIPP). All landfills must be lined and monitored with leachate collection systems. New Mexico deserves full, comprehensive cleanup.

The total volumes of wastes disposed in the LANL's Material Disposal Areas (MDAs or dumps) and other in-ground locations are unknown. The extent of the migration of wastes remains unknown. Plumes of contamination are present beneath LANL, but the volumes and extents of the plumes are unknown. For these reasons, the wastes must be excavated and characterized.

NMED notes the presence of a variety of radiological wastes at MDA C. Although NMED does not regulate radiological waste, NMED notes that the radiological contamination will likely extend beyond the 1,000-year evaluation period for this CME if left in the ground.

At just under 12 acres, comprehensive cleanup at MDA C can be successful. The wastes are shallow, with the deepest wastes at 25 feet deep. There are at least 2 examples of comprehensive cleanup that LANL has already performed. MDA B was a 6-acre dump built in the 1940's for disposal of radiological and hazardous waste. The site was excavated, starting in 2012, inside rolling enclosures to prevent air born contamination.

NMED also cites the success of the excavation of soil containing detonable pieces of high explosives, at Material Disposal Area P (MDA P). DOE prepared a site-specific health and safety plan that indicated the need for remote excavation to avoid placing personnel in direct contact with potential explosive hazards. A computer-controlled, remotely operated, 25 metric ton, hydraulic excavator was deployed to the site to perform all initial excavation operations. Remediation of MDA P demonstrates the ability to adequately minimize the hazards faced by workers due to exposure to hazardous materials and the potential fires and explosions during excavation and removal.

I agree that NMED has determined that Alternative 4 (Excavation, Plume Monitoring, and Institutional Controls), along with a passive and active soil-vapor extraction system at MDA C to remove the waste and eliminate the VOC contaminate source detected in soil pore gas, is the most appropriate cleanup measure.

NMED acknowledges that Alternative 3B (evapotranspiration (ET) cover, passive and/or active soil vapor extraction, institution controls), recommended by the DOE, would be effective in reducing or limiting the amount of water that percolates into the pits. If properly maintained, the ET cover may reduce surface erosion, and could effectively prevent direct exposure of the waste and minimize surface transport of contaminants in the future. However, I agree with NMED's assessment that indicates that the ET cover can only partially prevent bio-intrusion of deep-rooting plants and burrowing animals. In addition, Alternative 3B does not address the current and future release of Volatile Organic Compounds (VOCs) and tritium to the subsurface at MDA C given the uncertainty associated with inventory of waste disposed at MDA C over the years.

I question the Lab and DOE's argument that removing Area C waste would cost too much. Note that LANL's proposed 5-year nuclear weapons budget is almost 7 billion dollars while the highest estimate for full waste removal from Area C is about 800 million or about 11% of the 5-year weapons budget. The regional aquifer is around 1000 feet under Area C and it is a sole-source drinking water resource for communities in north-central New Mexico. Its protection is the strongest argument for total cleanup of Area C. The need for clean water is beyond debate,

Sincerely

Name