nuclear watch new mexico

Is Los Alamos Lab Half Empty or Over Full of Radioactive Wastes?

The Department of Energy's (DOE's) Environmental Management Los Alamos (EMLA) field office has repeatedly claimed that "> [i.e., more than] ½ of legacy cleanup has been completed."[1] This claim doesn't explain how this is measured. Does it mean ½ of the time, ½ of the cost, ½ of the sites, or ½ of the wastes? However it is measured, New Mexicans need to know that DOE and the Los Alamos National Laboratory (LANL) are NOT talking about real comprehensive cleanup.

When EMLA and its cleanup contractor (N3B) talk about cleanup, they mean specific narrow measures for specific sites, including much paperwork and studies instead of actual cleanup. Contrary to EMLA's self-proclaimed openness and transparency, the claim of greater that half-completed cleanup is based on decisions made without public input to leave the vast majority of radioactive and toxic wastes permanently buried above our precious groundwater.

While some Lab cleanup started in the late 1980s, tracking of the cleanup budget didn't start until 1997, which is the date used as the beginning of "prior costs" in recent DOE Congressional Budget Requests.[2] EMLA's current estimated date for completion of planned cleanup is 2037. That would be 22 years down and 18 to go, if we look at 1997 to 2037, which would be ½ of the time if EMLA completes its planned cleanup by 2037. If decisions are made to remove more wastes, which would be the right thing to do, cleanup could last for decades more while generating 100's of high-paying jobs. *Real, comprehensive cleanup would be well worth the wait!*

The same budget source states that LANL's total for "Prior Costs (97 – 2017)" is $3.22 billion. The cleanup budgets for FY 2018 and FY 2019 are $220 million each, giving a total of $3.66 billion spent to date. EMLA's total estimate for planned cleanup through 2037 is up to $7.33 billion. That would be half of the estimated cost spent to date, unless the budget increases, which it hopefully will for the right reasons. On the other hand, LANL's own estimate for removal of all the wastes at the Lab's largest dump, Area G, is $29 billion. *Real, comprehensive cleanup would be worth the cost, especially with all the jobs it would create!*

When Lab-wide cleanup started in the late 1990s, LANL identified over 2,100 sites that were potentially contaminated. The number of sites currently awaiting investigation, remediation, and/or completion is around 955. Looking at the numbers, remediation of about ½ of the sites has been completed. But, for the most part, the sites that have been completed were the low hanging fruit, the smaller, easier, and less costly sites. *Real, comprehensive cleanup of the larger, more complex and more expensive sites would dwarf the very limited "cleanup" that DOE plans.*

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[1] Department of Energy Environmental Management Los Alamos June 2018 Fact Sheet https://www.energy.gov/sites/prod/files/2018/11/f57/FINAL%20LANL%20Site%20by%20Numbers%20June%202018.pdf

[2] DOE FY19 2019 Congressional Budget Request, Volume 5, Lifecycle Costs by Program Baseline Summary Table, Pg. 90. https://www.energy.gov/sites/prod/files/2018/03/f49/DOE-FY2019-Budget-Volume-5_0.pdf That table is absent in DOE's FY 2020 budget.

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EMLA has not publicly released the total amount of Lab-wide wastes that have been removed to date. When EMLA and N3B use the word "waste" for cleanup purposes, as a rule they are referring to transuranic wastes that have been or are going to be shipped to the Waste Isolation Pilot Plant (WIPP). Transuranic (AKA "TRU") wastes are a type of radioactive waste that includes long-lived isotopes such as plutonium. WIPP only allows TRU wastes from nuclear weapons production. *EMLA may be ½ complete removing the wastes that DOE wants to remove, but it is nowhere near removing ½ of the all wastes that have ever been dumped at the Lab. LANL's own documents show that the total amount of wastes dumped at the Lab could be nearly one million cubic yards.*

All this means that DOE believes it is halfway done with leaving most of the wastes at LANL in place forever. Where will we be at the Lab's centennial in 2043? We should think about it now to avoid getting down the road and realizing that we should have been spending more on real cleanup. EMLA has taken the first shot on what cleanup should look like in the future in order to get the cheaper costs that it wants. Meanwhile, the budget for nuclear weapons programs that caused the mess to begin with keep rising. Don't forget that *EMLA is pushing their plans for cleanup on the cheap, and that the public must weigh in over the next few years to get the real cleanup we want and need to protect our water for future generations!*

Area G By the Numbers –
The 900,000 Cubic Yard Elephant in the Room

The Lab's largest dump, Area G, opened in 1957. By volume most of the waste has been placed in unlined pits. Before the mid-1990s, the waste was typically packaged in drums, plastic bags, and cardboard boxes that were disposed in pits. Each layer of waste was covered with crushed tuff and compacted using heavy equipment to fill void spaces between waste containers and provide an even, packed surface for another layer of waste. **All this waste in Area G is some 150 times greater than the belowground retrievable transuranic wastes that DOE and Lab officials plan to remove while claiming "cleanup."** [3]

Waste being disposed at Area G

Background: LANL's 2011 Corrective Measures Evaluation (Rev 3)[4] estimates "Total waste volume in pits and shafts – 902,815 yd3 (690,251 m3)" at Area G, which DOE plans to leave in the ground forever. Some other numbers for Area G:

· Total Excavated Volume of Pits and Shafts– 1,654,535 yd3 (1,264,982 m3)
· Total TRU Waste – 54,536 yd3 (41,675 m3)
· Total Mixed Low Level Radioactive Waste – 844,388 yd3 (645,580 m3)

Area G is located above the "sole source" (a legal term designating that extra protection is merited) regional aquifer that provides drinking water for Espanola, Santa Fe, and Los Alamos. The waste site sits in an active seismic zone between the Rio Grande Rift and the dormant Jemez supervolcano. Plutonium-239 has a half-life of 24,000 years, meaning that Area G would need to contain the wastes for some 120,000 years. But sadly, plutonium has already been detected 200 feet below Area G's surface, nearly a quarter of the way to deep groundwater.[5]

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[3] For more on Area G, see - https://nukewatch.org/fact-sheets-item/clean-up-area-g-hundreds-of-jobs-could-be-created-that-protect-the-environment/

[4] See https://nukewatch.org/importantdocs/resources/AGCME-inventories.pdf

[5] See https://nukewatch.org/importantdocs/resources/AGCME-Plate_B-3_radionuclides_subsurface.pdf