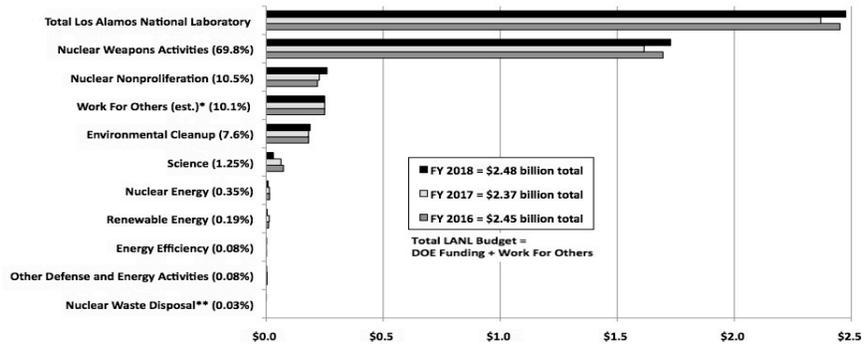




Radiologic and Hazardous Materials Committee

September 21, 2017
www.nukewatch.org

LANL FY 2018 Congressional Budget Request



Notes: In billions of dollars. The percentages are of total requested LANL budget for FY 2018. **"Work For Others" is for other than the Department of Energy (e.g., Depts. of Defense and Homeland Security, the FBI, CIA, etc.) and based on past years is estimated at \$250 million.

The 2016 LANL Cleanup Consent Order Should Be Rescinded

- In June 2016 the New Mexico Environment Department (NMED), the Department of Energy (DOE) and Los Alamos National Security, LLC (LANS) signed a revised Consent Order governing cleanup at the Los Alamos National Laboratory (LANL).
- We believe that NMED should have kept the original, enforceable 2005 Consent Order, modified as needed for the cleanup schedule and final compliance date.
- The 2016 Consent Order surrendered the strong enforceability of the old Consent Order.

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The 2016 LANL Cleanup Consent Order Should Be Rescinded

- The 2016 Consent Order was negotiated to allow DOE's budget to drive cleanup
- The revised 2016 Consent Order allows DOE to determine cleanup priorities based on its anticipated budget, which is the reverse of the original Consent Order.
- The new Consent Order allows LANL and DOE to get out of future cleanup by simply claiming that it's too expensive or impractical to clean up.

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The 2016 LANL Cleanup Consent Order Should Be Rescinded

- The 2005 Consent Order was all about the enforceable schedules.
- The 2005 Consent Order required DOE and LANL to investigate, characterize, and clean up hazardous and mixed radioactive contaminants from 70 years of nuclear weapons research and production.
- It stipulated a detailed compliance schedule that the Lab was required to meet. Ironically, the last milestone, due in December 2015, required a report from LANL on how it successfully cleaned up Area G, its largest waste dump.

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NMED Extensions Eviscerated The 2005 Consent Order

- When NMED Secretary Ryan Flynn announced a draft new Consent Order on March 30, 2016, he publicly claimed that the 2005 Consent Order was not working, hence the need for a new one to replace it.
- Nuclear Watch agrees that the 2005 Consent Order wasn't working, but that's because Flynn granted more than 150 compliance milestone extensions at the Lab's request, effectively eviscerating it. The 2005 Consent Order was working quite well until Gov. Martinez took office.

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The 2016 Consent Order Put DOE in the Drivers Seat

- “The Parties agree that DOE’s project’s plans and tools will be used to identify proposed milestones and targets.” See [https://www.env.nm.gov/wp-content/uploads/2015/12/LANL Consent Order FINAL.pdf](https://www.env.nm.gov/wp-content/uploads/2015/12/LANL_Consent_Order_FINAL.pdf), p. 28.
- “DOE shall define the use of screening levels and cleanup levels at a site...” p. 32.

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The 2016 Consent Order Put DOE in the Drivers Seat

- “DOE shall update the milestones and targets in Appendix B on an annual basis, accounting for such factors as... changes in anticipated funding levels.” p. 29
- “... [DOE and NMED] shall meet to discuss the appropriation and any necessary revision to the forecast, e.g. DOE did not receive adequate appropriations from Congress...” p. 30.

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The 2016 Consent Order Put DOE in the Drivers Seat

- “If attainment of established cleanup objectives is demonstrated to be technically infeasible, DOE may perform risk-based alternative cleanup objectives...” p. 34. DOE can opt out because of “impracticability” or cost of cleanup. p. 35.
- The 2016 Consent Order and therefore cleanup at LANL will be held hostage to DOE funding, when the Department’s own track record makes clear that its priority is expanded nuclear weapons production paid for in part by cutting cleanup and nonproliferation programs.

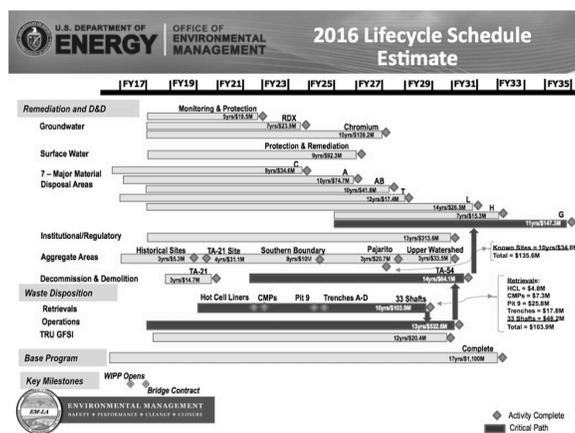
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Future Cleanup Does Not Have Cradle to Grave Enforceable Deadlines

- Under the 2016 Consent Order, all anticipated cleanup projects do not have scheduled, enforceable cleanup deadlines from the beginning to the end of the project.
- The 2016 Consent Order eliminates all the final deadlines for completing cleanup under the 2005 Consent Order, and replaces them with an open-ended and vague scheduling process, with highly limited enforcement opportunities.

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Future Cleanup Does Not Have Cradle to Grave Enforceable Deadlines



11

Future Cleanup Does Not Have Cradle to Grave Enforceable Deadlines

- The 2005 Consent Order (Section XII) established dozens of detailed deadlines for the completion of corrective action tasks, including completion of investigations at individual sites, installation of groundwater monitoring wells, submittal of groundwater monitoring reports, evaluation of remedial alternatives for individual sites, and completion of final remedies.
- These deadlines were truly enforceable under Section III.G.

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Public Participation Provisions in the 2005 Consent Order Were Not Incorporated into the 2016 Consent Order

- Any extension of a final compliance date (which was December 6, 2015) under the 2005 Consent Order should have been implemented only after the opportunity for public comment and a public hearing
- The 2016 Consent Order explicitly limits public participation requirements that were incorporated into the 2005 Consent Order.
- All notices, milestones, targets, annual negotiations, and modifications should have had public review and comment and the opportunity for a public hearing, but did not.

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Comprehensive Cleanup at LANL Would Be a Win-Win for Northern New Mexicans, Permanently Protecting the Environment While Providing Hundreds of High Paying Jobs

- The government's own environmental impact statement for a \$6.5 billion nuclear weapons facility for expanded plutonium pit production stated that it would not produce a single new lab job, because it would merely relocate existing lab jobs.
- Comprehensive cleanup at LANL would be a real job producer!

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Chromium Groundwater Contamination Plume Under Lab Greater Than Previously Expected

- The location of the particular well, Chromium Injection Well 6 (CrIN-6), was chosen because LANL thought that it would be on the edge of the chromium groundwater plume where detection samples would be below the New Mexico standard of 50 ug/L, or in other words on the boundary of what legally requires treatment.
- Given this new information, if this new well is used to inject treated water, it could help push the contamination beyond Lab boundaries instead of blocking it.

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Chromium Groundwater Contamination Plume Under Lab Greater Than Previously Expected

- The new data suggest there will have to be a complete re-thinking of chromium groundwater treatment by LANL and NMED, with more wells needed to both accurately find the true boundary of the chromium plume and eventual treatment.
- This inevitably means that remediation will take longer and cost more, when at the same time NMED weakened its own regulatory authority through a revised Consent Order governing cleanup that it agreed to with the Department of Energy last year.

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Material Disposal Area G 57 Years - 65 Acres



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Area G at LANL – Plans Are to Leave Most of the Waste Behind

- Area G opened in 1957. On a volume basis, 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 then placed into the pits in lifts.
- Each layer of waste was covered with crushed tuff and compacted using heavy equipment to effectively fill void spaces within the waste and provided an even, consolidated surface for the disposal of more waste.
- The pits and shafts at Area G range in depth from 20 to 65 feet.

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Area G at LANL – Plans Are to Leave Most of the Waste Behind

- The LANL- created 2011 Corrective Measures Evaluation (Rev 3) gives estimates on the waste at Area G –
 - Total excavated volume – 1,654,535 yd³ (1,264,982 m³)
 - Total waste volume in pits and shafts – 902,815 yd³ (690,251 m³)
 - Total TRU – 54,536 yd³ (41,675 m³)
 - Total Mixed Low Level Radioactive Waste – 844,388 yd³ (645,580 m³)

Material Disposal Area G 32 pits, 194 shafts

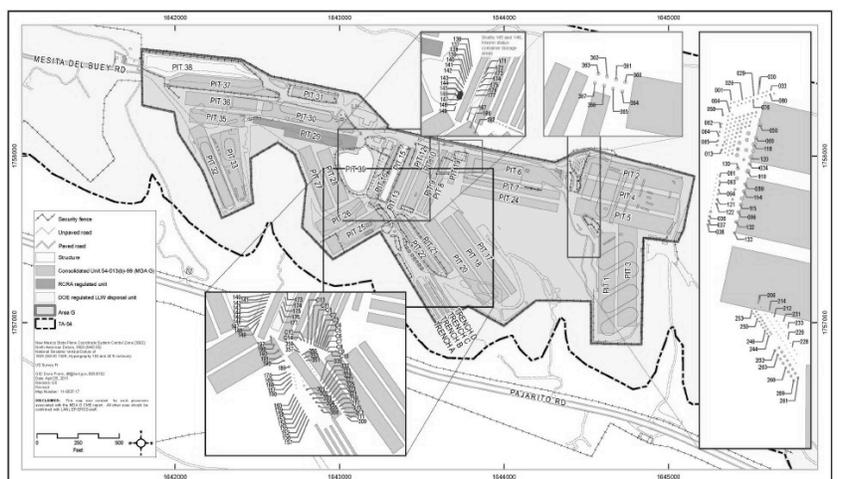


Figure 1.0-3 Area G waste disposal units

Area G at LANL – Plans Are to Leave Most of the Waste Behind

- Most of the estimated TRU waste in Area G was disposed of before 1970. DOE guidance states that TRU regulations do not apply to disposal that occurred prior to promulgation of the regulations.
- The 1985 version of the regulations states that the standards do not apply to waste disposed prior to the effective date of the rule.
- This excludes from the regulations waste that is colloquially known as “pre-1970 TRU waste”, “suspect buried transuranic waste”, and possibly by other names, if the waste is left in place.

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Area G at LANL – Plans Are to Leave Most of the Waste Behind

- DOE claimed that the Area G Performance Assessment demonstrated that a reasonable expectation existed that the potential releases from the facility will not exceed performance objectives established in DOE Order 435.1 during a 1000-yr period after closure.
- The Area G Composite Analysis only accounted for all other sources of radioactive material that were planned to remain on-site at the Laboratory that may interact with the LLW disposal facility and contribute to the dose projected to a member of the public from Area G.
- The TRU in Area G was assessed in the composite analysis only to investigate its effects on the LLW, and was not assessed as waste in its own right.

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Request for 10,000-year Assessment for Area G

- The TRU waste (limited up to a total of 176,000 m³) buried 2100 feet underground in WIPP has a Performance Assessment of 10,000 years.
- The estimated 41,675 m³ of TRU buried 65 feet, or less, underground in Area G at LANL has a Performance Assessment of only 1,000 years.

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Request for 10,000-year Assessment for Area G

- If DOE's remediation goals are to genuinely protect public health and the environment from long-term risks, then DOE must excavate the TRU wastes in Area G for disposal at WIPP.
- In any event, DOE should perform a 10,000-year (not 1,000) performance assessment on ALL TRU wastes buried at the Los Alamos National Laboratory, including pre-1970 TRU wastes.

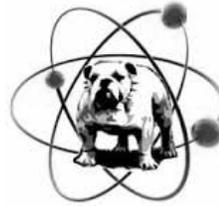
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Other

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