



May 31, 2016

Ms. Kathryn Roberts
New Mexico Environment Department
Post Office Box 5469
Santa Fe, New Mexico 87502

Via email to kathryn.roberts@state.nm.us

Dear Ms. Roberts:

As you know, Nuclear Watch New Mexico closely follows cleanup issues at the Los Alamos National Laboratory (LANL). Our mission statement includes citizen action to promote environmental protection and cleanup at nuclear facilities. We have been an active participant in hazardous waste management and cleanup issues at the Laboratory. We have advocated for increased cleanup funding for over fifteen years. We provided technical and procedural comments on two drafts of the original Consent Order, which went into effect in March 2005 (modified October 2012). We also participated in the LANL Hazardous Waste Permit negotiations and hearing during 2009 and 2010. Nuclear Watch is certain to remain strongly active in cleanup issues at the Lab.

Additionally, as private citizens we have often hiked, hunted, climbed and cross country skied in the canyons and on the cliffs around the Laboratory and in the adjacent Bandelier National Monument, Santa Fe National Forest and Valles Calderas National Preserve. As such, Nuclear Watch New Mexico clearly has strong standing in cleanup issues at LANL, and in particular any revised Consent Order governing cleanup at the Lab.

We urge the New Mexico Environment Department (NMED) to withdraw its proposed 2016 Compliance Order on Consent (“Consent Order”) governing cleanup at the Los Alamos National Laboratory (LANL), released for public comment on March 30, 2016. If implemented, the revised Consent Order will almost certainly create serious barriers to achieving cleanup, especially given the Lab’s known opposition to full and complete cleanup. In addition, the proposed revised Consent Order limits public participation opportunities; undermines enforceability by the Environment Department; puts the Department of Energy (DOE) in the driver’s seat; and lacks a final milestone compliance date. The proposed 2016 Consent Order is potentially a giant step backwards if the goal is to achieve genuine, comprehensive cleanup at LANL.

Instead, the Environment Department should basically keep the existing Consent Order that went into effect March 1, 2005, modified as needed with new realistic milestone compliance dates. Section XII of the 2005 Consent Order established dozens of mandatory deadlines for the completion of corrective action cleanup tasks, including completion of investigations at individual sites, installation of groundwater monitoring wells, submittal of groundwater

903 W. Alameda #325, Santa Fe, NM 87501 • Voice and fax: 505.989.7342
info@nukewatch.org • www.nukewatch.org • <http://www.nukewatch.org/watchblog/>
<http://www.facebook.com/NukeWatch.NM>

monitoring reports, evaluation of remedial alternatives for individual sites, and completion of final cleanup remedies. These deadlines were enforceable under section III.G of the 2005 Consent Order.

As explained in these comments, in our view the New Mexico Environment Department has preemptively surrendered enforcement power to DOE, particularly through allowing a giant loophole whereby the Energy Department and the Lab can simply plead that they don't have enough money for cleanup. This is the direct opposite of the original 2005 Consent Order, whose underlying intent was to make DOE and LANL ask Congress for additional funding for accelerated cleanup. This is particularly galling given that LANL is key to the trillion dollar rebuilding of nuclear forces as the premier nuclear weapons design lab and the nation's sole production site for plutonium pit triggers, the most critical nuclear weapons components. Funding for Department of Energy (DOE) nuclear weapons programs is nearly double historic Cold War averages, with around \$1.5 billion spent annually at LANL alone. In contrast, funding for Lab cleanup has been cut to \$189 million for FY 2017, with only approximately a sixth going to actual cleanup.¹

The original 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 also stipulated a detailed compliance schedule that the Lab was required to meet. Ironically, the last milestone, due December 6, 2015, required a report from LANL on how it successfully cleaned up Area G, its largest waste dump. However, real cleanup remains decades away, if ever. Instead, the Lab plans to "cap and cover" Area G, thereby creating a permanent nuclear waste dump in unlined pits and shafts, with an estimated 200,000 cubic yards of toxic and radioactive wastes buried above the regional groundwater aquifer, four miles uphill from the Rio Grande.

Nuclear Watch New Mexico asks that senior NMED management carefully consider all this, as Environment Department leadership will be gone in a few years, but a revised Consent Order will remain that is likely doomed to failure in compelling DOE and LANL to fully cleanup. That would be a real failure in leadership because genuine, comprehensive cleanup at LANL would be a real win-win for New Mexicans, permanently protecting the environment and our precious water resources while creating hundreds of high paying jobs (for more, see Attachment B).

Nuclear Watch urges the Environment Department to simply modify the 2005 Consent Order with updated Section XII cleanup schedules that provide realistic final milestone compliance dates. Long-range, concrete schedules are key to holding DOE and LANL accountable for cleanup and to incentivize increased funding for cleanup, contrary to the declining funding that we are now witnessing. Having said that, we are not advising that there be an end date to the Consent Order itself, as it is obvious that compliance milestones schedules will have to be periodically modified as cleanup remedies are selected and implemented, and/or new contamination discovered requiring cleanup, such as occurred with the chromium groundwater plume.

¹ One-third of DOE Environmental Management funding goes to pensions, another third to safeguard improperly treated radioactive waste barrels, one of which ruptured and closed the multi-billion dollar Waste Isolation Pilot Plant, and overhead takes more than half of the remaining third. Thus only one-sixth or less of available "cleanup" funding actually goes to cleanup.

Nuclear Watch also formally requests that NMED hold a public hearing on any revised Consent Order, as required by the New Mexico Hazardous Waste Act (NMSA 1978, §§ 74-4-1 to 14) and the federal Resource Conservation and Recovery Act (RCRA) (40 CFR §270.42, Appendix I.A.5.b.) Please note that our position is that NMED is legally required to hold that public hearing in the event that there are unresolved issues between interested parties, as we believe there surely will be at this point in time. Our basis for saying that is that these requirements were explicitly incorporated into the 2005 Consent Order. We also communicated this directly to NMED Secretary Ryan Flynn long before the draft revised Consent Order was released, in a letter dated September 21, 2016, to which we never received a written reply (that letter is incorporated into these comments as Attachment A).²

If NMED goes on to approve the new Consent Order, we believe it will then be violating the legal requirements of the 2005 Consent Order by not implementing its public participation requirements. A substantially revised Consent Order is clearly a “major modification” in the legal sense, which in turn triggers required public participation requirements.

Finally, the public participation requirements that were incorporated in to the 2005 Consent Order should be incorporated into any revised Consent Order as well.

GENERAL COMMENTS

Don’t Put DOE in the Driver’s Seat

The revised Consent Order as proposed is a giveaway to the Department of Energy and LANL who created the mess to begin because it lacks enforceability and puts DOE in the driver’s seat. Examples from the draft Consent Order are:

P. 27: “Milestones scheduled for the current fiscal year are enforceable and subject to Stipulated penalties under Section XXXXV (Stipulated Penalties); targets are not enforceable and not subject to stipulated penalties.”

This is absurd to have enforceable milestones for only one year, when we all know that any genuine cleanup of LANL will take decades. It is also wrong to not hold DOE’s feet to the fire over the long term when the Department has a terrible record of meeting long-term cleanup goals (and everything else, for that matter). Rather than abjectly surrender to that fact, any new Consent Order should be tough with DOE and simply enforce compliance (including with the use of stipulated penalties) with a detailed long-term compliance milestones schedule. There is a reason that DOE has been on the Government Accountability Office’s High Risk List for 25 consecutive years, and it is simply not to be trusted. To propose milestones that are enforceable for only one year followed by unenforceable targets smacks of being a divide and conquer strategy to avoid comprehensive cleanup.

² Letter to NMED Secretary Ryan Flynn, Nuclear Watch New Mexico, September 21, 2016, http://www.nukewatch.org/facts/nwd/NukeWatch-NMED-Consent_Order_9-21-15.pdf

Our recommendation is to strike this provision and replace it with a long-term compliance schedule that is robustly enforced by NMED. Those milestone dates can be adjusted or added to as needed, with the proviso that there be meaningful public participation while doing so.

P. 27: “The Parties agree that DOE’s project’s plans and tools will be used to identify proposed milestones and targets.”

This is entirely wrong and clearly puts DOE in the driver’s seat. Our recommendation is to strike this provision and replace it with a provision that DOE can propose project’s plans and tools, which NMED may or may not approve. We also want to see unenforceable “targets” eliminated (what good are they anyway?), to be replaced by long term, enforceable compliance milestone schedules.

P. 28: “DOE shall update the milestones and targets in Appendix B on an annual basis, accounting for such factors as, for example, actual work progress, changed conditions, and changes in anticipated funding levels. This is called the annual planning process.”

What does that mean? How is that a “planning process,” other than a prescription for DOE and LANL to get out of cleanup? “Actual work progress” is usually far slower than wanted, (witness the 2005 Consent Order). So does this “planning process” then condone lack of cleanup? How is it that DOE updates the milestones and target? It should instead be NMED that updates enforceable long-term milestones (again, eliminate “targets”).

Perhaps the worst flaw of all in the proposed Consent Order is to empower DOE to update milestones according to anticipated funding levels. This is a prescription for failed cleanup, when DOE’s track record already demonstrates declining cleanup funding for LANL, while funding for the Lab’s nuclear weapons programs that caused the mess to begin with continues to climb. This is also true across the nuclear weapons complex, to us a clear *quid pro quo*, that is cuts to cleanup, nonproliferation and dismantlement programs to help pay for increased nuclear weapons research and production programs.

Our recommendation is to completely delink the Consent Order from DOE cleanup budgets. Costs and budgets are DOE’s problem. Go back to the original intent of the 2005 Consent Order, which was to make DOE and LANL get the money from Congress for accelerated cleanup. Enforce it with the vigorous use of stipulated penalties, with no milestone compliance extensions granted other than for trues cases of *force majeure*. Get DOE out of updating milestones (and eliminate “targets”), which NMED should be doing anyway.³

p. 29: “...the DAMs [Designated Agency Managers] shall meet to discuss the appropriation and any necessary revision to the forecast, e.g. DOE did not receive adequate appropriations from Congress...”

³ Being mindful of NMED’s own budget and resource constraints, it would be acceptable to us to have DOE propose milestones which NMED then stringently oversees. But NMED should make sure that DOE pays for NMED’s time in that oversight.

Again, this is the Consent Order being held hostage to DOE funding. Instead, NMED should completely revamp the proposed Consent Order to eliminate any link to DOE funding. Use the Consent Order to make DOE go get additional cleanup funding.

p. 31: “DOE shall define the use of screening levels and cleanup levels at a site...”

This again indicates that DOE is in the driver’s seat. It is acceptable that DOE proposes “screening levels and cleanup levels at a site,” but it must be made explicitly clear that NMED has final decision-making authority.

p. 33: “If attainment of established cleanup objectives is demonstrated to be technically infeasible, DOE may perform risk-based alternative cleanup objectives...”

This is a giant loophole that needs to be closed. The criteria for technically infeasible must strictly defined so that DOE doesn’t get an easy out. Also estimated cost should not be a factor in determining technical feasibility (see immediately below).

P. 34: “For all other instances in which DOE seeks to vary from a cleanup objective identified above, DOE shall submit a demonstration to NMED that achievement of the cleanup objective is impracticable. In making such demonstration, DOE may consider such things as technical difficulty or physical impracticability of the project, the effectiveness of proposed solutions, the cost of the project, hazards to workers or to the public, and any other basis that may support a finding of impracticability at a particular SWMU(s) and/or AOC(s).”

The new Consent Order should be delinked from costs. In our view, DOE lowballs projects when it wants to do them (for example, the Chemistry and Metallurgy Research Replacement Project at LANL, the Uranium Processing Facility at the Y-12 Plant, the National Ignition Facility at the Livermore Lab, the failed MOX Fuel Fabrication Facility at the Savannah River Site, etc., etc.). But DOE highballs projects that it doesn’t want to do, such as cleanup of the Lab’s biggest radioactive and hazardous waste dump, Area G. In short, LANL estimated full exhumation and cleanup of Area G would cost \$29 billion, a clearly impossible cost. But our own cost comparison based on hard costs from cleaning up MDAs B and C is \$6-7 billion, which would still provide hundreds of high paying jobs for New Mexicans. (See our cost comparison at Appendix C.)

NMED’s responsibility is to make sure that New Mexicans and the environment and our precious water resources are protected, and not to accommodate DOE’s funding priorities. Cleanup costs are DOE problems that DOE caused to begin with. Claims of poverty in cleanup funding are mighty hard to swallow when nuclear weapons programs are awash in taxpayers’ cash. To repeat yet once again, promulgate a Consent Order with updated compliance milestones that are fully enforceable with the vigorous use of stipulated penalties. Make DOE and LANL go out and get the money for accelerated cleanup. Protect the homeland by cleaning it up!

More generally, the proposed Consent Order is replete with “should.” “Shoulds” must be “shalls”, otherwise DOE is in the driver’s seat and genuine, comprehensive cleanup won’t be accomplished at LANL.

Draft RFP Shows that DOE Already Agrees with Proposed Consent Order

On May 26, 2016, DOE posted a Draft Request for Proposals (RFP) of the Los Alamos Legacy Cleanup Contract (LLCC) for review. The proposed 2016 Consent Order is the guts of the draft RFP. As the DOE document states that the “draft 2016 Consent Order is the contract requirement that all Offerors shall propose to and comply with...” (Pg. C-2) At the very least, it’s premature for DOE to request bidders to frame a work proposal centered on a Consent Order that is still draft. What is DOE’s rush? We think the answer lies in just how favorable the proposed Consent Order is to DOE. This evidence of how badly DOE wants it.

A quick review of the “Campaigns” sections in both the draft RFP and the proposed Consent Order show them to be nearly identical in exact language. (The DOE RFP’s *Attachment J-8 Campaign Cross Walk to PWS Sections* is incorporated into our comments as Attachment D.) DOE does not caution that this information was taken from a draft document and is still far from approval.

Or is it far from approval? DOE’s speed and use of nearly identical language makes it difficult for us to believe that there has been no closed door negotiations between NMED and DOE over the proposed Consent Order. On numerous occasions, the draft RFP refers to specific sections of the proposed Consent Order. For example the draft RFP states, “The most significant requirement[s] for monitoring groundwater are identified in the 2016 Consent Order, Section XII, *Groundwater Monitoring*.” (Pg. C-58) For the most part, the draft RFP does not use the word ‘draft’ when referring to the proposed 2016 Consent Order.

So, it feels as if the proposed 2016 Consent Order is a done deal and that public comments will have little impact. DOE is all in and ready to move on the 2016 Consent Order, precisely because it is so advantageous to it and LANL. Now they can get it on with the real business of producing new nuclear weapons for they are already calling the Second Nuclear Age before they have cleaned up from the first nuclear age, while just meeting the procedural hurdles of a gutted Consent Order. Would DOE waste a bunch of contractors’ time working on a bid for proposed Consent Order work that will substantially change after public comments? We think not.

The Fatal Flaw of the Proposed Consent Order Is Immediately Evident

On May 26, 2016, DOE released a press release, “*DOE Releases Draft Request for Proposal for Los Alamos Legacy Cleanup Contract*” which stated, “The total estimated value of the contract is approximately \$1.7B over the prospective ten-year period of performance...”
<http://energy.gov/em/articles/doe-releases-draft-request-proposal-los-alamos-legacy-cleanup-contract>

This averages to \$170 million per year, but the current proposed cleanup budget for Los Alamos is \$189M for FY 2017. So it appears that, before it is even signed, the proposed 2016 Consent Order has failed to increase the cleanup budget for the next ten years. There is no mechanism spelled out in the proposed 2016 Consent Order to increase, or to even maintain, an annual budget. The whole ‘Annual Planning Process’ laid out in the proposed 2016 Consent Order must be scrapped, as it is a fatal flaw to achieving comprehensive cleanup at Los Alamos National Laboratory. As we have repeatedly stated, this is directly opposite to the intent of the original 2005 Consent Order, which was to make DOE and LANL get more money from Congress for accelerated, comprehensive cleanup.

SPECIFIC COMMENTS

NMED leadership should refrain from saying that the 2005 Consent Order didn't work.

- How could it work when that same leadership granted more than 150 time extensions for compliance milestones? Saying that the 2005 Consent Order didn't work must not be used as an excuse to grant DOE and LANL a new Consent Order that preemptively surrenders enforcement authority. That clearly won't work if the goal is to compel genuine, comprehensive cleanup at LANL.

NMED Must Add Los Alamos National Security, LLC (LANS), the management contractor at LANL, as a Party

- The proposed 2016 draft Consent Order omits naming LANS, a limited liability corporation, and management contractor at LANL, as a Party to the Order.

The opportunity for a public hearing must be provided

- Any extension of a final compliance date must be treated as a Class 3 permit modification to the 2005 Consent Order and therefore requires a 60-day public comment period.
- Any extension of a final compliance date under the 2005 Consent Order can be implemented only after the opportunity for public comment and a public hearing, including formal testimony and cross-examination of witnesses.
- The Environment Department is legally required to follow these public participation requirements that explicitly incorporated into the 2005 Consent Order.
- All issues raised in these comments are subject for a public hearing if there are unresolved issues (as we anticipate there will be).

Withdraw the proposed draft 2016 Consent Order

- The proposed draft represents a big step backwards in achieving the goal of genuine cleanup of the Laboratory.
- The Environment Department should keep the current 2005 Consent Order and revise the Section XII cleanup schedule and final compliance date.
- We request that the Environment Department withdraw the proposed draft 2016 Consent Order.

The public deserves the opportunity to comment on all following drafts

- It seems likely that a later draft – after the Lab's and public comments are incorporated into a revised draft – and after closed-door negotiations between the Environment Department and the Laboratory – could be substantially different from the current draft. Our fears are magnified by the fact that the recently released DOE RFP for the LANL cleanup contract so closely mirrors the draft revised Consent Order, which cannot be coincidental.
- We request that the public have the opportunity to review and comment on any further drafts of a revised proposed 2016 Consent Order.

Public participation provisions in the existing 2005 Consent Order must be incorporated into the proposed draft 2016 Consent Order

- The proposed draft 2016 Consent Order explicitly limits public participation requirements incorporated into the existing 2005 Consent Order.
- We request that all notices, milestones, targets, annual negotiations, and modifications require public review and comment, and the opportunity for a public hearing.

The current state of cleanup must be updated and next steps scheduled

- Work under the existing 2005 Consent Order needs to be subject to public review. In 2005 DOE agreed to complete cleanup under the Consent Order by December 6, 2015, which did not happen. In order for the public to understand where the work under the existing Consent Order stands, LANL should be required to provide a current, publicly available list of the status of all cleanup projects under the 2005 Consent Order.
- Further, we request that next steps for cleanup at every site listed in the 2005 Consent Order be documented in detail and given a scheduled completion date, or alternatively verified as already completed.
- All documents submitted under the 2005 Consent Order must be incorporated into any revised Consent Order.

All documents must be made public as required in the 2005 Consent Order

- The State and the Lab must make all communications, documents, submittals, approvals, notices of deficiencies and denials under any revised Consent Order readily and electronically available to the public.
- The State and the Lab must notify individuals by e-mail of all submittals, as required in the 2005 Consent Order.

The Environment Department must respond in writing to all public comments

- We request that the Environment Department reply individually to each and every comment submitted.
- The Lab's comments and NMED's response to comments must be made public through LANL's Electronic Public Reading Room at <http://epr.lanl.gov/oppie/service>.

All future work must have enforceable deadlines

- The proposed 2016 Consent Order eliminates all the deadlines for completing cleanup as required by the 2005 Consent Order. It replaces the deadlines with an open-ended and vague scheduling process, with limited enforcement opportunities.
- The proposed 2016 Consent Order proposes a "campaign" approach with enforceable cleanup deadlines limited to the work scheduled only for that year, thereby ensuring that it would be open-ended without a final compliance date.
- Campaign deadlines would be negotiated each year between NMED and DOE and LANL with no public participation, no opportunity to comment on the proposed deadlines, nor a required public hearing. That is wrong. Any revised Consent Order should contain strong public input provisions for the selection of campaign targets and deadlines.
- The revised Consent Order must ensure that all scheduled cleanup work has mandatory completion dates, which must be enforced by NMED.
- The annual schedule would be up to DOE's discretion, rather than the schedule driving the funding appropriated by Congress, which is the fundamental approach of the 2005 Consent Order.

New Mexico Attorney General Approval Must Be Obtained

- The 2005 Consent Order was signed by the Attorney General of New Mexico for purposes of the Section III Covenant Not to Sue and the Reservation of Rights provisions.
- The proposed 2016 Consent Order provided the State of New Mexico with a covenant not to sue DOE on behalf of the State of New Mexico, not merely on behalf of the Environment Department. Nevertheless, there is no signature line for the New Mexico Attorney General in the proposed 2016 Consent Order. The Attorney General was an active participant, representing the People of New Mexico, in the 2005 Consent Order.
- The Environment Department must ensure that the New Mexico Attorney General is consulted, and his approval obtained, before any Consent Order is finalized.

Cleanup Levels Must Remain Strict

- Section IX *Cleanup Objectives and Cleanup Levels* of the proposed 2016 Consent Order would allow DOE to “develop site specific ecological cleanup levels” to mitigate unacceptable ecological risk due to release of site-related contaminants.
- There is no mention of NMED’s role in this process. DOE would be allowed to demonstrate to NMED that any particular “cleanup objective is impracticable.”
- The criteria for DOE to determine whether a cleanup is “impracticable, include technical difficulty, the cost of the project, hazards to workers or to the public, and any other basis that may support a finding of impracticability.
- If NMED approves the impracticability request, DOE can then propose alternative cleanup methods using site-specific risk assessments. All of the decision-making could take place behind closed doors, as there are no public participation requirements in this section.
- NMED must specify what cleanup levels will be used and when and where they will be applied.

The Consent Order cannot be open-ended

- The proposed 2016 consent order would indefinitely extend the final compliance date for completing corrective action at the Laboratory, without the opportunity for a public hearing with formal testimony and cross-examination of witnesses.
- Any Consent Order for LANL cleanup must have a final compliance date to which both NMED and DOE and LANS agree to and are so bound.
- NMED must provide a 60-day public review and comment period, in addition to an opportunity for a public hearing about changes to Section XII of the 2005 Consent Order and the new final compliance date as required by state and federal regulations. See 40 CFR §270.42, Appendix I.A.5.b.

Existing Violations Must Not Be Eliminated

- Section II.A of the proposed 2016 Consent Order would “settle any outstanding violations of the 2005 Consent Order.” This is a get out of jail free card. Without enforceable schedules, any consent order is not enforceable. The Environment Department is abdicating its responsibility to protect human health and the environment as required by the federal RCRA and the New Mexico Hazardous Waste Act.
- NMED must not surrender its regulatory and enforcement powers.

New Mexico Attorney General Approval Must Be Obtained

- The 2005 Consent Order was signed by the Attorney General of New Mexico for purposes of the Section III Covenant Not to Sue and the Reservation of Rights provisions.
- The proposed 2016 Consent Order provided the State of New Mexico with a covenant not to sue DOE on behalf of the State of New Mexico, not merely on behalf of the Environment Department. Nevertheless, there is no signature line for the New Mexico Attorney General in the proposed 2016 Consent Order. The Attorney General was an active participant, representing the People of New Mexico, in the 2005 Consent Order.
- The Environment Department must ensure that the New Mexico Attorney General is consulted, and his approval obtained, before any Consent Order is finalized.

The Proposed 2016 Consent Order Must Not Extend the Original Final Compliance Date Without Required Public Participation

The proposed 2016 consent order would indefinitely extend the final compliance date for completing corrective action at the Laboratory, without the opportunity for a public hearing with formal testimony and cross-examination of witnesses. Any extension of a final compliance date under the 2005 Consent Order requires a 60-day public comment period and the opportunity for a public hearing, including formal testimony and cross-examination. The Environment Department is legally required to follow these procedural requirements.

The legal requirements that mandate a public hearing are clear. Section XII of the 2005 Consent Order establishes the compliance schedule for implementation and completion of corrective actions at specific sites at the Laboratory. This schedule is mandatory. The final report that was to be submitted under the 2005 Consent Order – therefore, the final compliance date – was the remedy completion report for the huge Area G waste dump, required to be submitted by December 6, 2015. The proposed 2016 Consent Order would indefinitely extend this final compliance date by not designating a specific final compliance date.

But this revision must be treated as a major Class 3 permit modification. Section III.W.5 of the 2005 Consent Order explicitly provides for the preservation of full procedural rights for the public as follows:

This Consent Order hereby incorporates all rights, procedures and other protections afforded the Respondents [DOE and UC, now LANS] and the public pursuant to the regulations at 20.4.1.900 NMAC (incorporating 40 C.F.R. § 270.42) and 20.4.1.901 NMAC, including, but not limited to, opportunities for public participation, including public notice and comment, administrative hearings, and judicial appeals concerning, for example, remedy selection decisions of the [Environment] Department.

Thus, extension of a final compliance date under the 2005 Consent Order requires a 60-day public comment period and the opportunity for a public hearing, including formal testimony and cross-examination.

The Proposed New Consent Order Must Not Limit Other Public Participation Procedures

The proposed 2016 Consent Order expressly limits public participation requirements in a way that completely diverges from those provided in the 2005 Consent Order. As explained above, the 2005 Consent Order explicitly protects procedural due process rights available to the public. The proposed 2016 Consent Order explicitly removes these protections, as follows:

The Parties agree that the rights, procedures and other protections set forth at 20.4.1.900 NMAC (incorporating 40 C.F.R. § 270.42), 20.4.1.901 NMAC, and 20.4.1.902 NMAC, including, but not limited to, opportunities for public participation, including public notice and comment, administrative hearings, and judicial appeals, *do not apply* to modification of the Consent Order itself. *[Emphasis added]*

Thus, as proposed in the above language, the Parties (the Environment Department, Department of Energy and Los Alamos National Security, LLC) have inappropriately agreed to remove the due process rights, procedures and other protections provided to the public under the Resource Conservation and Recovery Act (RCRA) and the New Mexico Hazardous Waste Act. This provision must be stripped from the proposed 2016 Consent Order.

The Proposed New Consent Order Must Not Eliminate Enforceable Deadlines

The proposed 2016 consent order would eliminate all the deadlines for completing cleanup under the 2005 Consent Order, and replace them with an open-ended and vague scheduling process, with limited enforcement opportunities.

The 2005 Consent Order, in Section XII, established dozens of 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 are enforceable under section III.G.

The proposed 2016 Consent Order would abandon the 2005 Consent Order provisions and replace them with a so-called “Campaign Approach” under Section VIII. Under Section VIII.A.3, it would be up to the DOE, not the regulator at the New Mexico Environment Department, to select the timing and scope of each “campaign.”

Enforceable deadlines for cleanup tasks would apply no more than one year into the future. Deadlines would be based on “Campaigns” negotiated each year with DOE with no public participation and opportunity to comment on the schedule. To add insult to injury, the annual schedule would be determined by funding at DOE’s discretion, rather than the schedule driving the funding, which was the fundamental approach of the 2005 Consent Order.

All cleanup projects must mandatory completion dates scheduled from the beginning date of any revised Consent Order, and must be fully enforceable.

Existing Violations Must Not Be Eliminated

Section II.A of the proposed 2016 Consent Order would “settle any outstanding violations of the 2005 Consent Order.” This is a get out of jail free card. Without enforceable schedules from the beginning, any consent order is not truly unenforceable, and the Environment Department would be abdicating its responsibility to protect human health and the environment as required by the federal Resource Conservation and Recovery Act (RCRA) and the New Mexico Hazardous Waste Act. NMED must not surrender its regulatory and enforcement powers!

Attorney General Approval Must Be Obtained

The 2005 Consent Order was signed by the Attorney General of New Mexico for purposes of the Covenant Not to Sue (section III.) and the Reservation of Rights (section III.). As indicated on the draft signature page, there is no indication of the NM Attorney General plans to sign the proposed 2016 Consent Order. Yet it would provide the State of New Mexico with a

covenant not to sue DOE on behalf of the State of New Mexico, not merely on behalf of the Environment Department. The Attorney General was an active participant, representing the People of New Mexico, in the 2005 Consent Order. The Environment Department has a responsibility to ensure that the NM Attorney General is consulted, and his approval obtained, before any consent order is adopted.

The Proposed 2016 Consent Order Must Not Omit Detailed Requirements Found in the 2005 Consent Order

The 2005 Consent Order includes numerous detailed requirements for such things as well installation, sample collection, and preparation of work plans and reports. These ensure that the cleanup work is done properly, consistently, and according to standard industry practices. They also ensured that work plans and reports were consistent, easy for the Environment Department to review, and easy for the public to understand. The proposed 2016 Consent Order omits many such requirements, which should be corrected.

The Proposed 2016 Consent Order Must Not Allow Budget To Dictate Cleanup

The proposed 2016 Consent Order allows DOE to provide cleanup priorities based on anticipated budget, which is backwards. . By the time NMED receives an estimated annual cleanup budget from DOE, the horse has left the barn. The original purpose of the 2005 Consent Order was to compel DOE and LANL to ask Congress for additional funds to accelerate cleanup. The giant loophole in the proposed 2016 Consent Order that allows DOE and LANL to say that they don't have sufficient funding and therefore can choose to exempt themselves from cleanup should be eliminated.

Cleanup Levels Must Remain Strict

Section IX Cleanup Objectives and Cleanup Levels of the proposed 2016 Consent Order would allow DOE to “develop site specific ecological cleanup levels” to mitigate unacceptable ecological risk due to release of site-related contaminants. There is no mention of NMED’s role in this process. DOE would be allowed to demonstrate to NMED that any particular “cleanup objective is impracticable.” To do this, DOE may consider such things as technical difficulty, the cost of the project, hazards to workers or to the public, and any other basis that may support a finding of impracticability. If NMED approves the impracticability request, DOE can then propose alternative cleanup methods using site-specific risk assessments. All of this could take place behind closed doors, as there are no public participation requirements in this section. Please clarify what cleanup levels will be used and when and where they will be applied.

List of Acronyms

- All acronyms must be listed
 - IM?
 - ACA?
 - RFI?
 - Admin – Cmplt SIR?

Appendix A

Solid Waste Management Unit/Area Of Concern List

- The list is incomplete – all areas must be included.
 - Example - Include MDA G - CME Submitted to NMED
- Where are the Aggregate Areas?

- All acronyms must be listed.
 - IM?
 - ACA?
 - RFI?
 - Admin – Cmplt SIR?

Appendix B

Milestones And Targets

- All items of all Campaigns must have enforceable, long-term dates. If “targets” are not enforceable eliminate them and turn them into enforceable long-term compliance milestones.

Appendix C

Future Campaigns

- All Campaigns must have enforceable dates.

Appendix D

Document Review/Comment And Revision Schedule

- What happens if schedule is missed must be stated.
- What happens if more Review/Revise cycles are needed must be stated.

Appendix E

Document Templates

- Change “shoulds” to “shalls.”
- “Guidance” that relies on “should” is not really regulation.
- What happens if DOE should not want to do something?
- Appendix is not searchable.

Appendix F

Sampling/Analytical/Field Method

Regulatory Guidance

- Too many “shoulds” – use “shall.”
- “Guidance” that relies on “should” is not really regulation.
- What happens if DOE should not want to do something?
- Appendix is not searchable.

New Mexico deserves better

In closing, the Environment Department’s proposed 2016 Consent Order allows the federal government to leave Northern New Mexico contaminated if DOE believes that cleanup is too difficult or costly– a sorry situation indeed for a nuclear weapons facility that receives over 2 billion taxpayer dollars a year. Instead, the New Mexico Environment Department should implement a new revised Consent Order that is aggressive and enforceable and in which the

State of New Mexico stays in the driver's seat, not LANL and DOE. That would be a real win-win for New Mexicans, helping to permanently protect the environment and our precious water resources while creating hundreds of high-paying cleanup jobs.

These comments respectfully submitted,

Jay Coghlan
Executive Director

Scott Kovac
Research Director

Attachment A



September 21, 2015

Mr. Ryan Flynn, Secretary
New Mexico Environment Department
Post Office Box 5469
Santa Fe, New Mexico 87502

Via USPS and email

Dear Secretary Flynn:

We are writing to express our strong concern with the New Mexico Environment Department's stated plans to renegotiate the final compliance date for corrective action (i.e., cleanup) at the Los Alamos National Laboratory (LANL) under the March 1, 2005 Compliance Order on Consent without the required public participation process. As explained below, the Consent Order incorporated the full public participation requirements applicable to hazardous waste permits under the regulations. Consequently, any major modifications to the Consent Order, including any extension of the final deadline for completing corrective action, will require the opportunity for a public hearing.

As you know, Nuclear Watch New Mexico closely follows cleanup issues at LANL. We have advocated for increased cleanup funding for over fifteen years. We provided technical and procedural comments on two drafts of the Consent Order, which went into effect in March 2005 (modified October 2012). We also participated in the LANL Hazardous Waste Permit negotiations and hearing during 2009 and 2010. Nuclear Watch is certain to remain strongly active in cleanup issues at the Lab.

The Consent Order requires the U.S. Department of Energy (DOE) and Los Alamos National Security LLC (LANS) to conduct a cleanup of environmental pollution by December 2015. If that final compliance date is changed – and we acknowledge at this point that it will certainly need to change – we have always understood that a public hearing would be held. Our understanding is based on numerous statements by NMED officials over many years and, more importantly, on the express terms of the Consent Order.

The Consent Order provides:

III.W.5 Preservation of Procedural Rights

This Consent Order hereby incorporates all rights, procedures and other protections afforded the Respondents and the public pursuant to the regulations at 20.4.1.900 NMAC (incorporating 40 C.F.R. § 270.42) and 20.4.1.901 NMAC, including, but not limited to, opportunities for public participation, including public notice and

903 W. Alameda #325, Santa Fe, NM 87501 • Voice and fax: 505.989.7342
info@nukewatch.org • www.nukewatch.org • <http://www.nukewatch.org/watchblog/>
<http://www.facebook.com/NukeWatch.NM>

comment, administrative hearings, and judicial appeals concerning, for example, remedy selection decisions of the Department.

Further, the Consent Order specifically contemplated full public participation for modifications to the order:

III.J MODIFICATION

III.J.1 Procedures for Modifying Provisions of the Consent Order

The Parties may modify any of the provisions of this Consent Order. Except as provided in Sections III.L (Notice to Parties) and III.M (Work Plans and Other Deliverable Documents), any such modifications must be in writing and signed by all Parties. As provided in Section III.W.5, modifications of this Consent Order are subject to the same procedural rights that would apply to those modifications if made under the Facility’s Hazardous Waste Permit pursuant to the regulations at 20.4.1.900 NMAC (incorporating 40 C.F.R. § 270.42) and 20.4.1.901 NMAC.

The federal regulations, 40 C.F.R. § 270.42 Appendix 1 A, which are incorporated into New Mexico regulations, 20.4.1.900 NMAC, establishes the public participation procedures for various types of permit modifications, including:

MODIFICATIONS	CLASS
5. Schedule of compliance	
a. Changes in interim compliance dates, with prior approval of the director	1
b. Extension of final compliance date	3

Thus, 40 C.F.R. § 270.42 Appendix 1 A.5.b requires a “Class 3” permit modification for an extension of a final compliance date. Under 40 C.F.R § 270.42(c), incorporated by 20.4.1.900 NMAC, a Class 3 permit modification can be made only after the opportunity for a public hearing. Moreover, the New Mexico Hazardous Waste Act specifies that prior to the issuance of a “major modification” to a permit, NMED must afford “an opportunity for a public hearing at which all interested persons shall be given a reasonable chance to submit data, views or arguments orally or in writing and to examine witnesses testifying at the hearing.” NMSA 1978, § 74-4-4.2(H) (2006). Further, the State regulations make clear that a “major modification” is the same thing as a “Class 3” modification. 20.4.1.901.B(6) NMAC.

Because the Consent Order contains the corrective action requirements that are typically in a permit, the Consent Order expressly adopted these public participation requirements in section III.W.5. Extension of a final compliance date under the Consent Order requires the opportunity for a public hearing, contingent on the outcome of negotiations.

The compliance schedule for the Consent Order (Revised October 29, 2012) is in Section XII. The introductory paragraph to section XII reads as follows:

XII. COMPLIANCE SCHEDULE TABLES

The Respondents shall follow the specified compliance schedules for all of the SWMUs, AOCs, canyons, and watershed aggregates included in this Order. Table

XII-1 is the closure milestone schedule by watershed. Tables XII-2 and XII-3 are the compliance schedules of deliverables.

The final scheduled compliance date in Section XII is December 6, 2015, which is the date that the Remedy Completion Report for MDA G is due. Changing this last compliance date triggers a Class 3 Permit Modification process and the necessary public participation requirements, including an opportunity for a public hearing. This is made more urgent by the fact that NMED has recently approved an extension request beyond December 6, 2015, with perhaps more to follow.

Ideally, a hearing would be obviated by preceding negotiations for the Class 3 modification, which is described in section 20.4.1.901.A(4) NMAC. It states that NMED, in conjunction with the applicants, must respond to requests for hearings and notices of opposition to draft permits issued under the State Hazardous Waste Act in an effort to resolve those issues that gave rise to the hearing requests. So to be clear, we are not fixated on the need for a hearing itself; rather we seek the full public participation process required by the existing Consent Order, which includes the opportunity for a hearing if negotiations are not successful.

Short-circuiting the Class 3 modification procedures would deny the public many procedural rights, such as the opportunity to testify, to present expert testimony, and to question witnesses at a public hearing. It would also deny the public the opportunity to sit down with NMED, DOE and LANS for negotiations, as a Class 3 modification would.

NMED has stated that there would be (at least) a 60-day comment period for the modified Consent Order, similar to the comment period on the draft Consent Order. However, we do not regard that as valid precedent given the final Consent Order's clear public participation requirements.

Thank you for your consideration of this important matter. We are, of course, more than willing to meet with you and your staff at your earliest convenience to discuss this issue.

Sincerely,

Jay Coghlan

Scott Kovac

CC: Mr. Jeffrey M. Kendall, General Counsel, NMED
Ms. Kathryn Roberts, Division Director, NMED
Mr. Hector H. Balderas Jr., New Mexico Attorney General
Ms. Laurie F. King, EPA Region 6

Attachment B

Clean Up Area G: Hundreds of Jobs Could Be Created that Protect the Environment

Summary: New Mexicans should push their politicians to vigorously lobby for comprehensive cleanup at the Los Alamos National Laboratory (LANL). Unlike nuclear weapons programs, **cleanup would be a win-win that permanently protects the environment while creating hundreds of high paying jobs.** Specifically, the New Mexico Environment Department should be pressured to NOT condone the *de facto* creation of a permanent nuclear waste dump by approving “cap and cover” of an estimated one million cubic meters of radioactive wastes and contaminated backfill at the Lab’s Area G. Instead, NMED should require full excavation and offsite disposal of the radioactive and toxic wastes.

Political and Regulatory Background: In large part because of jobs, the New Mexican congressional delegation has supported a huge new plutonium facility for nuclear weapons at LANL called the Chemistry and Metallurgy Research Replacement Project (CMRR), which has been deferred because of budget constraints. But the sad fact is, as the government’s own documents explicitly stated, **the CMRR’s exorbitant cost of up to 6 billion taxpayer dollars would NOT have produced a single new permanent job** (instead it would have merely relocated existing jobs). In contrast, **comprehensive cleanup of Area G, the Lab’s biggest radioactive dump, could create hundreds of high paying jobs for decades while permanently protecting the environment.**

In 2005, following difficult negotiations and lawsuits by the federal government against New Mexico, the U.S. Department of Energy signed a legally binding Consent Order demanded by the state Environment Department that stipulated extensive milestones on the road to comprehensive cleanup at LANL. In part, the Lab is required to remove the large fabric air buildings at Area G which house plutonium-contaminated bomb wastes destined for disposal at the Waste Isolation Pilot Plant (WIPP) in southern New Mexico. However, Governor Martinez’s administration has agreed to give two-year extensions to more than 30 milestones when the Consent Order itself is set to expire at the end of 2015. This scheme includes prioritizing accelerated shipments of above-ground WIPP wastes while allowing the Lab to renege on its other cleanup milestones. NMED gave away the store because in this case “accelerated” only means catching up to what LANL was previously required to do.



Nevertheless, federal budgets constraints are being used as the pretext for forcing the false choice between accelerated WIPP shipments or the cleanup of buried contaminated wastes. However, one of the primary purposes of the Consent Order to begin with was to compel LANL to seek adequate funding for cleanup, instead of just nuclear weapons. The Martinez Administration has preemptively surrendered the state’s leverage while accommodating LANL. *Area G, with pits and shafts for “low-level” radioactive wastes to the left and fabric buildings on the right for storing transuranic wastes destined for WIPP in southern NM.*

Some technical aspects of Area G: Because it reportedly contains one million cubic meters of radioactive wastes and contaminated backfill, thought to be 80% of LANL's currently buried inventory, comprehensive cleanup of Area G would be tantamount to comprehensive cleanup of the Lab itself. LANL claims that Area G is just a "low-level" radioactive waste dump under legal definitions. However, in reality some low-level wastes can be more radioactive than the WIPP-bound plutonium-contaminated "transuranic" wastes. Furthermore, Area G began operations in 1957, long before the advent of environmental laws and decent record keeping. Therefore the contents of Area G are in part unknown - - there could be both buried high-level and transuranic radioactive wastes. In all cases, boxes, drums and containers of radioactive wastes were dumped directly into unlined pits and shafts. DOE has always resisted, not only at LANL, but also across the entire country, disposing of radioactive wastes in modern landfills with multiple liners and leachate collection systems. This is especially outrageous given that NMED will not allow any county or municipality in this state to get away without modern landfills, yet **DOE and the Los Alamos and Sandia National Labs continue to dump radioactive wastes directly into New Mexican soil.**

For an idea of what's in Area G see: <http://nukewatch.org/importantdocs/resources/AGCME-inventories.pdf>

What LANL wants: The Lab narrowly limited its analyses of "cleaning up" Area G to two methods, with estimated costs, timelines and worker-hours. The first method LANL proposed is evapotranspiration cover (or "**cap and cover**"), costing \$386 million. This would take three years to build, followed by 30 years of monitoring and soil vapor extraction and a century of "institutional controls" (i.e. fences). In all this would require an estimated 424,000 worker-hours to cover 51 acres and maintain it for 30 years, **but leaves all wastes permanently buried!**

The second method the Lab analyzed is full excavation of more than 100 pits and shafts, with off-site waste disposal and excavated areas backfilled with clean material, costing \$29 billion. This would take 30 years to complete, requiring an estimated 108 million worker-hours. However, we believe that when the Lab wants to do something (like the CMRR) it lowballs the price; but when it does NOT want to do something (like full cleanup of Area G) it dramatically highballs the costs.

Nuclear Watch NM completed a cost comparison of actual and estimated costs from other projects in order to realistically estimate costs for full cleanup. We believe Area G can be comprehensively cleaned up for less than \$7 billion, far less than LANL's estimated \$29 billion. With nearly half of that for labor costs, it would be money well spent, creating hundreds of jobs while permanently protecting groundwater and the Rio Grande.

For our cost comparison please see: http://www.nukewatch.org/facts/nwd/Area_G_Comparison_Costs-11-14-12.pdf

The method and degree of completeness of required Area G cleanup is yet to be approved by NMED, but we believe the Department is leaning toward condoning cap and cover, and therefore the *de facto* creation of a permanent nuclear waste dump. **Public participation will be vital to counter this!** NMED can only approve LANL's plan until after public comment. The City of Santa Fe has weighed in with a resolution that seeks full excavation and offsite disposal of Area G wastes, which other local governments should be encouraged to follow. Only sustained citizen pressure can help guarantee the only right outcome, which is comprehensive cleanup of Area G.

Real security demands a clean environment and sustainable jobs. Why can't New Mexicans have jobs that protect the environment? Don't let LANL "clean up" on the cheap through cap and cover. Demand real cleanup, a win-win for New Mexicans that permanently protects the environment while creating hundreds of jobs!

December 11, 2013

Attachment C



What Should Comprehensive Cleanup of Area G Cost? Budget Comparisons between Material Disposal Areas B, C, and G

The New Mexico Environment Department (NMED) is on track to approve or not before the end of the year the method of cleanup for Material Disposal Area (MDA) G, the main radioactive waste dump at the Los Alamos National Laboratory (LANL). The Lab has submitted to NMED its preferred “remedy” of “cap and cover” with an estimated cost of \$186 million.^a LANL claims that this cap will protect the public and the environment for 1,000 years. However, many of the buried radionuclides in Area G will remain dangerous for 10’s to 100’s of thousands of years, and the dump is located in an active seismic zone between a rift and a dormant supervolcano.

The Lab also submitted an option of full cleanup and offsite disposal of Area G wastes, but estimated that cost at \$29 billion. This seems clearly financially impossible, leading to its automatic rejection. But is that estimate for comprehensive cleanup of Area G credible, especially given LANL’s deteriorating reputation for cost estimates? The purpose of this analysis is to compare available actual and estimated costs in an attempt to estimate realistic costs for full cleanup of Area G. More importantly, LANL and NMED should objectively estimate realistic costs.

A “Corrective Measures Evaluation” (CME) for Area G was released by LANL in September 2011. Area G consists of 51 acres of subsurface pits, trenches, and shafts. The purpose of the CME was to investigate cleanup alternatives while analyzing safety and cost, which arrived at the full cleanup estimate of \$29 billion. In comparison, a fully excavated MDA B is now being completed, and can be a model of what can be done at what cost. Additionally, an estimate for another MDA, Area C, was recently released, which can be used to further buttress cost comparisons.

In our chart on the next page LANL’s actual or estimated costs per acre and per cubic meter (m³) for cleanup of the three MDAs are radically different. Area G is eight and a half times the size of MDA B (51 acres vs. 6) and may have up to 41 times more wastes to be excavated (1,400,000 m³ vs. 32,875m³). But incongruously it has a total estimated cleanup cost an astronomical 213 times higher than that of MDA B (\$29B vs. \$136M), when typically costs tend to go down with greater volume. As a relevant example, the original cost estimate for full excavation and cleanup of MDA B was \$110 million, but double the expected wastes was found at twice the depth and 10 times the radioactive curie count than what was originally expected. Despite all that the total cleanup cost for MDA B increased by only \$26 million.

*903 W. Alameda #325, Santa Fe, NM 87501 • Voice and fax: 505.989.7342
info@nukewatch.org • www.nukewatch.org • http://www.nukewatch.org/watchblog/
http://www.facebook.com/NukeWatch.NM*

It is unknown exactly what wastes are in Area G and at what amounts. Estimates on the amount of actual wastes are around 250,000 cubic meters, but upwards of 1.4 million cubic meters was excavated to bury these wastes in unlined pits. It is then reasonable to assume that much of the backfill used in the pits at Area G is now contaminated. In order to better capture all likely costs, the tables below use a high estimate of 1,400,000 cubic meters of waste and fill that would need to be excavated from Area G for full cleanup.

MDA cleanup costs (& dates) using LANL data

<i>Material Disposal Area</i>	<i>Acres</i>	<i>Total cleanup costs</i>	<i>Cost per acre</i>	<i>Excavated waste & fill (m³)</i>	<i>Cost per m³ excavated</i>	<i>Meter³ of waste per acre</i>
MDA B Feb. 2012 ^b	6.0	Actual \$136,000,000	\$22,700,000	32,875	\$4,136	5,480
MDA C Sept. 2012 ^c	11.8	Est. \$787,116,295	\$66,704,770	259,110	\$3,973	16,788
MDA G Sept. 2011 ^d	51.0	Est. \$29,000,000,000	\$568,627,451	1,400,000	\$20,714	27,451

This chart calculates what the estimated cost for Area G cleanup would be if the per unit prices of MDAs B and C are used.

Area G cleanup cost estimates using MDA B and MDA C costs per acre and per cubic meter

	<i>Area G acres</i>	<i>Per acre cost (from above)</i>	<i>Total Area G using per acre costs</i>	<i>Area G excavated waste & fill (m³)</i>	<i>Cost per m³ (from above)</i>	<i>Total Area G per meter³ costs</i>
Using MDA B costs	51	\$22,700,000	\$1,157,700,000	1,400,000	\$4,136	\$5,790,400,000
Using MDA C costs	51	\$66,704,770	\$3,401,943,270	1,400,000	\$3,973	\$5,562,547,011

Bottom line: Full cleanup of Area G should cost between the range of \$1.2 billion and \$5.8 billion. The latter figure uses per cubic meter costs, which is probably the more realistic, but still nowhere close to LANL’s estimated \$29 billion. The fact that using MDA B & C per cubic meter costs nearly agree with other while calculating the total Area G cleanup cost help to corroborate each other. Given the recent experience of discovering twice the wastes at MDA B, it may be reasonable to give complete cleanup at Area G an overall contingency raising total cleanup costs up to \$7 billion. We argue that even that amount of money would be well spent. The estimated \$6 billion for the CMRR facility for nuclear weapons plutonium work was not going to create a single new permanent job. In contrast, **up to \$7 billion to clean up Area G would be a win-win for New Mexicans, permanently protecting the environment, groundwater and the Rio Grande while creating 100’s of high paying jobs.**

This analysis was made possible by the support of the New Mexico Community Foundation’s Community Involvement Fund. November 14, 2012

a - MDA G CME Report, Revision 3, <http://permalink.lanl.gov/object/tr?what=info:lanl-repo/eprr/ERID-206324> , Table 8.2-2

b - ARRA PROJECTS – LANL, Feb 2012, <http://permalink.lanl.gov/object/tr?what=info:lanl-repo/lareport/LA-UR-12-24668> , Slide 8

c – MDA C CME Sept 2012, <http://permalink.lanl.gov/object/tr?what=info:lanl-repo/eprr/ERID-222830>, Section 8.2.5.5 , Table I-3.5-1

d - MDA G CME Report, Revision 3, <http://permalink.lanl.gov/object/tr?what=info:lanl-repo/eprr/ERID-206324> , Table 8.2-3, Table 2.1-1

903 W. Alameda #325, Santa Fe, NM 87501 • Voice and fax: 505.989.7342
info@nukewatch.org • www.nukewatch.org • <http://www.nukewatch.org/watchblog/>
<http://www.facebook.com/NukeWatch.NM>

Attachment D

PART III - LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS

SECTION J – LIST OF ATTACHMENTS

ATTACHMENT J-8: CAMPAIGN CROSSWALK TO PWS SECTIONS

Campaign Title	PWS Elements	PWS Descriptions	Number of SWMUs/AOCs
Chromium Interim Measures and Characterization	C.10.1 – C.10.6	Chromium Groundwater Interim Measures	N/A
Historical Properties Completion	C.11.2.1, C.11.2.3, C.11.2.2, C.11.2.5	Remaining high-angle remediation and sites on Los Alamos County or Private Property Gauje/Barrancas/Rendija, Pueblo Upper Los Alamos, Middle Los Alamos SWMUs and AOCs in TA-0 and TA-1	80 (4) (6) (22) (39) (9)
RDX Interim Measures and Final Remedy	C.9	RDX Groundwater Remediation	2
Administrative Site Completion (SIR)	C.11.2.25, C.11.2.21, C.11.2.16, C.11.2.26, C.11.2.27, C.11.2.18, C.11.2.22, C.11.2.7, C.11.2.11, C.11.2.8, 9, 10, and 11.	Supplemental Investigation Reports and Certificates of Completion for the following Aggregate Areas: <ul style="list-style-type: none"> • S-Site, • Potrillo and Fence Canyons, • Threemile Canyon, • TA-49 Inside Nuclear Environmental Site (NES), • TA-49 Outside NES, • Canon de Valle TA-14, • North Ancho Canyon, • Lower Sandia Canyon, • Upper Canada del Buey, and • Mortandad Canyon. 	60 14 20 10 3 21 3 16 48 22
TA-21 D&D and Cleanup	C.11.2.04	DP Site Aggregate Area including DP East, Site Cleanup activities, buried waste line excavation, corrective actions at TA-21-004(b)-99, demolition of TA-21-257, and demolition of DP West and buried contaminated soils	52
Los Alamos/Pueblo Canyons	C.7.1.2-4	Sediment Monitoring, canyon performance, and sampling at Early Notification System	1
Known Cleanup Sites (Above SSLs)		Sol removal from 20 sites from previous investigations	20
General's Tanks	C.10.2.1.1	MDA-A General's Tanks Removal	N/A

(MDA-A)		Action [This is a radiological-only DOE campaign and is not listed in the 2016 Consent Order, Appeidix C.]	
MDAs -A & -T Remedy	C.12.2.1.2 C.12.2.1.3 C.12.2.7	Pits and Trenches Characterization and MDA-A Corrective Measures Evaluation Report MDA-A Remedy Project MDA-T Remedy Project	26 + (1) (3)
Chromium Final Remedy	C.8	Chromium Groundwater Remediation	N/A
Southern Boundary Protection	C.11.2.23, C.11.2.24, C.11.2.20	South Ancho Canyon Aggregate Area Chaquehui Canyon Aggregate Area Lower Water Canyon Aggregate Area	59
MDA-C	C12.2.2	MDA-C	1
Sandia Canyon Watershed	C.11.2.6, C.11.2.7, C.11.2.8, C.11.2.9, C.11.2.10, C.11.2.11, C.11.2.12, C.11.2.13	Upper Sandia Canyon Aggregate Area, Lower Sandia Canyon Aggregate Area, Upper Mortandad Canyon Aggregate Area, Middle Mortandad and Ten Site Canyons Aggregate Area. Lower Mortandad and Cedro Canyons Aggregate Area, Upper Canada del Buey Canyon Aggregate Area, Middle Canada del Buey Canyon Aggregate Area, Lower Mortandad and Lower Canada del Buey Canyons Aggregate Area	50 total
Pajarito Watershed	C.11.2.14, C.11.2.15, C.11.2.14, C.11.2.16, C.11.2.17	Upper Pajarito Canyon Aggregate Area, Twomile Canyon Aggregate Area, Starmer Canyon Aggregate Area, Threemile Canyon Aggregate Area, Lower Pajarito Canyon Aggregate Area	172 Total
Upper Water Watershed	C.11.2.18, C.11.2.19	Canon de Valle Aggregate Area TA-15, Canon de Valle Aggregate Area TA-16, Canon de Valle Aggregate Area TA-14, Upper Water Canyon Aggregate Area	279
MDA-AB	C.12.2.8, C.11.2.27, C.11.2.28	MDA-AB TA-49 Inside NES TA-49 Outside NES	13
MDA-H Remedy	C.12.2.4	MDA-H	1
MDAs –G& -L Remedy	C.12.2.3, C.12.2.5, C.11.2.6	MDA-G MDA-L MDA-L Interim Measure Soil Vapor Extraction (SVE) System	12

Non-Campaign Base Program Activities	C.3, C.5 C.5 C.5 C.6 C.7 C.8	Programmatic Requirements distributed across the programs, Monitor Surface Water Gage Stations Monitor Groundwater per IFGMP and Other Programs Monitor Early Notification System for BDD Drilling (Install Additional Groundwater Wells Required for Other Activities) Monitor IP Sampling Individual Permit Surface Water Corrective Actions	N/A
--	--	---	-----