May 30, 2016

William Moats
8409 Fairmont Drive, NW
Albuquerque, NM 87120

Kathryn Roberts, Director
Resource Protection Division
New Mexico Environment Department
P.O Box 5469
Santa Fe, NM 87502-5469

Subject: Draft LANL Consent Order

Dear Ms. Roberts:

Enclosed in this letter are my comments concerning the 2016 proposed Order on Consent (proposed Consent Order) between the New Mexico Environment Department (NMED) and the U.S. Department of Energy (DOE) for the Los Alamos National Laboratory (LANL) Facility. My comments are submitted in response to the NMED's public notice on this matter issued March 30, 2016, and the notice extending the public comment period issued by the agency on May 16, 2016. While I sometimes offer suggestions for revisions to proposed Consent Order, I prefer it to be abandoned, and the existing, original Consent Order (2005) be retained. My preference is founded chiefly, but not entirely, on the basis that the proposed Consent Order weakens NMED's authority to require adequate and timely corrective action at LANL, and a complete replacement of the original Consent Order is unnecessary. Additionally, the proposed Consent Order, if finalized as written, locks NMED into a bad agreement for decades to come, eliminates public participation related to future modifications of the Order, and does not include requirements and schedules for all corrective action sites at LANL as required under 20.4.1.500 NMAC incorporating 40 CFR 264.101(a) and (b).

None of my comments is meant to criticize the DOE (Respondent). I cannot blame them for attempting to reach an agreement (via the proposed Consent Order) that is in their best interests. Thus, where criticism is implied in my comments, it is directed solely at the NMED, which has the responsibility to ensure that the final Consent Order meets the intent of law, is adequately protective of human health and the environment, and serves the best interest of the people of New Mexico. Unfortunately, while the original Consent Order meets the latter criteria, its proposed replacement does not.

**Comments on Main Document**

1. You personally know me. As you are aware, I worked for the NMED for over 25 years, and only recently retired from the agency (at the end of 2015). For nearly all of those years of

service, I worked directly for the NMED Hazardous Waste Bureau (HWB) or conducted work directly related to the business of the HWB (NMED DOE Oversight Bureau). For the last 14 years of my time at NMED, I was the Albuquerque Group Manager of the HWB's Permits Management Program. I was on the teams that negotiated the Sandia National Laboratories and the original LANL Consent Orders; both Orders are consequently similar, although there are some differences. I have served as an expert witness at public hearings and have presented at many public meetings on behalf of the NMED. Thus, whether or not the NMED agrees with my comments, my comments should be taken with careful consideration as I am undeniably qualified to offer opinions on this matter.

2. While I did not work directly on LANL corrective action, I had many occasions to discuss the progress of corrective action under the original Consent Order with my colleagues that were assigned to work on LANL. The original LANL Consent Order is voluminous and contains many prescriptive requirements related to sampling and analysis, investigation procedures, document contents, as well as other requirements. Such prescriptive requirements were a necessity as for decades Respondent and its contractors were submitting inadequate documentation in support of what were also inadequate investigations. The requirements in the original Consent Order set forth NMED's basic expectations on how to properly conduct investigations and remediation, and how to provide detailed, high quality plans and reports to demonstrate that adequate work had been or was scheduled to be done. Initially, Respondent failed to make deadlines under the original Consent Order, and the NMED demanded stipulated penalties in response. However, after a few years the Respondent did begin to make meaningful progress under the provisions of the original Consent Order. I was told by my colleagues that the quality of investigations had considerably improved, as well as reporting and the preparation of work plans, deadlines were being met, and as a consequence, the demand for new stipulated penalties for failure to meet deadlines had waned. Given this improvement, I can't help but question why NMED would want to completely replace the original Consent Order when clearly nothing was and is broken with the original Order. The original Consent Order had the desired effect that NMED wanted and needed -- Respondent was accomplishing timely and adequate corrective action at LANL for the first time.

As I noted above, according to my colleagues, everything was going great with LANL until Governor Martinez's administration interfered with the progress being made by invoking her "realignment of priorities". This interference is documented starting on the bottom of page 16 of the proposed Consent Order:

> *The proximity of the fire to above-ground stored wastes in TA-54 prompted New Mexico Governor Susana Martinez to request that the Respondent prioritize removing non-*

> *cemented above-ground wastes. The Respondent agreed to realign waste management priorities*.

What isn't documented in the proposed Consent Order is that DOE did not have the funds to pay for the realignment. However, the Governor, through political pressure on the NMED, allowed the DOE to pay for the realignment using money that was supposed to be spent on corrective action required under the original Consent Order. As a consequent, NMED HWB staff were required by management to issue time extensions in lieu of stipulated penalties for failures of the DOE to now meet its commitments. The progress on corrective action at LANL that had been going so well under the original Consent Order virtually disappeared overnight.

While it may appear that the original Consent Order is now no longer working, that would be an incorrect assessment due to disastrous effects of the Governor's "realignment of priorities", which led to the taking away of funding from LANL corrective action activities, and consequently, the end of making significant progress on corrective action at LANL.

The realignment of priorities was unnecessary. NMED should make decisions based on regulatory requirements and science, not politics. Here, politics were clearly at play. DOE rightfully spared no expense to protect its properties (LANL) from the fire. That the fire burned much of the fuel that had accumulated on the ground suggests that another major fire could not likely occur for decades. There being no other risk drivers besides fire, there was no need to expedite waste removal at the expense of shutting down the corrective action project at LANL.

I looked for the NMED's justification for completely replacing the original LANL Consent Order with that being proposed. I did not find one, as a Fact Sheet for this action was not prepared (for example, the public notices don't mention a Fact Sheet and none is posted on the HWB's web page). The original Consent Order is still in effect, and contemplates modification of the Order. The original Consent Order in Sections III.J.1 and III.W.5 states that modifications of the Order are to follow the permit modification requirements of 20.4.1.900 NMAC incorporating 40 CFR 270.42, including preservation of all rights, procedures, and protections afforded the public. Given the latter, the complete replacement of the original Consent Order constitutes the equivalent of a Class 3 permit modification request (*see* 40 CFR 270.42(d)(2)(iii) and also C.8.a of Appendix I of 40 CFR 270.42). A Fact Sheet explaining and justifying the need to completely replace the original Consent Order should have been prepared by the NMED in accordance with 20.4.1.901.D NMAC, but one was not. I find it odd that such an omission would have been missed by HWB managers, as they have decades of experience between them doing public notices for permit modification requests.

3. Having no luck finding justification via a Fact Sheet for replacing the original Consent Order among the public notice documents on the web page, I reviewed the presentation slides given on May 18, 2016, to the Northern New Mexico Citizens Advisory Board (slides posted on NMED's web page). Slide 11, entitled *NMED Perspective*, seems to be intended to provide justification for full replacement of the original Consent Order, indicating that the proposed Consent Order focuses on accelerating cleanup, provides a plan for how/when all cleanup will be completed (with additional detail that it supports discussions concerning future funding levels for LANL), and that it enables success rather than to delay cleanup. None of these perspectives warrant changes to the original Consent Order. First, the original Consent Order already allows for accelerated investigations and cleanups (Sections VII.F). In all the years I worked for the NMED, the agency always encouraged and supported, when appropriate, accelerated investigation and cleanup of corrective action sites. Second, the proposed Consent Order does not provides a plan for how/when **all** cleanup will be completed. In the original Consent Order, there are nearly 100 pages devoted to establishing corrective actions at individual sites and sites within specific canyon watersheds, technical areas, and MDAs. Another 25 pages of schedules are found in Section XII of the original Order. However, the so-called plans in the proposed Consent Order Appendix B are often vague, as discussed below in Comment 70, and the milestones, the only enforceable schedules, are established for just some sites. Thus, the public cannot review and comment on enforceable schedules for all corrective action sites. Regarding LANL's funding levels, NMED technical staff never hear the end of complaints from responsible parties about having to spend their scarce money resources. However, risks to the public and the environment should drive cleanups, not whether LANL has the funds (more about this matter later). Opening the door to allow Respondent to use the lack of money as an excuse to delay corrective action will only result in Respondent not having money to meet its obligations (discussed more below). And finally, the delay in cleanup over the last 5 years or so is not related to a deficiency in the original Consent Order, but instead, is caused by the Governor's realignment priorities as discussed above. Bottom line is that original Consent Order is adequate for the intended purpose, and until the Governor interfered, it was working well as originally designed and implemented. There is no need to waste NMED resources to create a new Consent Order. Just enforce the existing one after revising schedules as appropriate due to the delay caused by the Governor's realignment priorities.

I'll further add here that because NMED did not provide a Fact Sheet that explains the rationale for replacing the original Consent Order, NMED did not properly follow requirements of the original Consent Order at Sections III.J.1 and III.W.5, and thus that for a Class 3 permit modification request. This failure to follow proper process for the equivalency of a Class 3 permit modification request opens the door to a citizen law suit. I noticed also that the public was not reminded by the public notices of their opportunity to request a hearing on this particular matter.

4. Page 4, Section II.B.1-8. Except for the establishment and the use of the terminology "campaigns", the original Consent Order already has accomplished these purposes. "Campaigns", in the proposed Consent Order, are really nothing more than a site or combination of sites, which may have or not have an associated milestone.

5. Page 4, Section II.B.7. This Section of the proposed Consent Order states that it will provide for effective public participation. Effective public participation is adequately addressed in the original Consent Order (see Sections III.J.1, III.W.5, III.Z, IV.A.3.g, VII.D.7, and VII.E.4). However, unlike the original Consent Order, the proposed Consent Order (in Section XXXIII) eliminates public input concerning future modification of the Consent Order itself. Such public participation was of significant importance to citizens when the original Consent Order was being developed. Furthermore, the process set forth in the proposed Consent Order requires that modification will be a frequently recurring event, and the public will have no say with regard to future changes.

Realistically, it will take decades to complete corrective action even with the best of intentions. From a practical standpoint, modification of an order on consent requires, at least prudently, (costly) legal review and senior management review and approval, all which consumes considerable time and resources. Thus, consent orders are not typically signed with the intent that they will be frequently modified. If approved, the proposed Consent Order will lock NMED's future senior management into a burdensome and poorly designed process with no way to escape until termination of the Order (so until corrective action is completed at the Facility, see also Comment 64). The proposed Consent Order is so heavily weighted in the Respondent's best interests (especially considering funding levels) that Respondent will have no incentive to support changes that would eliminate its advantages. And NMED will have no way of the terms of the Order, unless Respondent agrees.

6. Page 5, Section II.D.2.a. The guiding principle regarding mutually-agreed results is not founded in common sense or sound technical reasoning, as it is not possible to anticipate all results of an investigation or cleanup, and it is not even required that the Respondent accepts NMED's positions on actual results. What really matters is that NMED accepts the results, and Respondent's responses to results are adequate to protect human health and the environment. Furthermore, the phrase "makes optimum use of available resources" implies, as is rife throughout the proposed Consent Order, that money will be a driving factor with respect to what is actually to be accomplished over any given time period rather than risk to human health and the environment, or even to expedite clean up. I suggest deleting this statement as it adds nothing of material worth to an enforceable document.

7. Page 5, Section II. D.2.b. Clarify this statement to define "full protection", a term I've not familiar with even given my many years of experience, as the regulations require only that the Respondents do what is adequate to protect human health and the environment. The Respondents are not required to go beyond what is adequate, even if it means protection will be increased. If I'm not familiar with the term " full protection", it's probably safe to conclude neither generally is the public.

8. Page 5, Section II.D.2.f. Clarify this statement to define "risk-informed guidance", a term I've not familiar with even given my many years of experience. If I'm not familiar with the term, it's probably safe to conclude neither generally is the public.

9. Page 5, Section II.D.2.h. This guiding principle is already incorporated in the original Consent Order at Section VII.F. The current belief, obviously expressed by this guiding principle, that there is some kind of prohibition against accelerating cleanup has no basis, and certainly does not constitute a reason to vacate and replace fully the original Consent Order. Furthermore, the process embodied in the proposed Consent Order to consider Respondent's funding levels for cleanup will work against accelerated cleanup.

10. Page 5, Section II.D.2.i. This guiding principle is not based on sound technical reasoning and should be deleted. Prior data indicating low risk may not be reliable with respect to data quality or for other considerations with respect to conceptual site models. That is why all such data should be discussed in Investigation Work Plans, subject to review and approval of the NMED.

11. Page 5, Section II.D.2.j. This guiding principle is already incorporated in Section III.V of the original Consent Order. During my long tenure with the NMED, technical staff were directed by HWB management (including myself) and in good faith complied with said direction to not ask for information that was not needed to reach a decision on a corrective action, permitting, or enforcement action. The current belief, obviously expressed by this guiding principle, that there is a problem with NMED staff asking for unnecessary information (increased volume of paperwork) has no basis, and certainly does not constitute a reason to vacate and replace the original Consent Order.

12. Page 8, Section III.N. The definition for explosive compounds should be clarified that it applies to corrective action conducted outside the authority of the Hazardous Waste Management Regulations (20.4.1 NMAC). Under RCRA Subtitle C, there are substances that are explosive (reactive and ignitable) and that are not listed in the definition presented in Section III.N of the proposed Consent Order. Also, it is not clear why this definition is even needed.

13. Page 17, IV.A.6.m. The paragraph states that the Respondent claimed that meeting the requirements of the 2005 Consent Order was difficult due to a lack of funding. Furthermore, it indicates that NMED management was willing to renegotiate the Consent Order, apparently in light of the Respondent's complaint of the shortage of money. Again, the proposed Consent Order is rife with statements indicating that a lack of funding should be considered when setting schedules and work requirements for corrective action (presumably to provide relief to the Respondent). In this way, the proposed Consent Order is weakened compared to the original Consent Order. Whether private or government owned, funding is always difficult to obtain and is always cited as an excuse to delay, or not due adequate investigations and cleanups. I have 25 plus years of experience to back this up. Furthermore, the **main reason** why the original Consent Order was developed was to give the Respondent stronger justification to seek and acquire from Congress cleanup funds for the LANL Facility (the same was the case for Sandia National Laboratories environmental Restoration Project). The DOE explained during development of the original Consent Order that Congress funded DOE sites first based on the priority to meet obligations under corrective action orders and similar enforceable documents. If the NMED now allows funding to be used as an excuse to delay, or conduct cheaper but inferior, corrective actions, as seems contemplated by the processes described in the proposed Consent Order, the result will be that the LANL Facility will be of lower priority to Congress, and funding will be more difficult for the Respondent to acquire. This works against accelerating cleanup and against doing adequate and proper investigations and remediation.

14. Page 22, Section VI.A. This Section states " This Consent Order shall be construed to avoid duplication of work already performed or completed as determined by NMED pursuant to its current HWA authority or by EPA pursuant to its RCRA authority prior to delegation of the RCRA program to the State. Accordingly, all such work that has been completed prior to the effective date of this Consent Order, that fulfills the substantive requirements of this Consent Order, and that has been approved by NMED or EPA, in writing, shall be deemed to comply with this Consent Order."

While this has been general practice executed by the NMED under the original Consent Order, I see no advantage for NMED to limit itself forever that it must accept EPA past approvals. This is another Respondent advantage. Unless new information surfaces, NMED is unlikely to revisit SWMUs/AOCs that have already been approved for Corrective Action Complete status. While today, EPA technical staff are well trained, that was not always true in the past and mistakes were made. For example, a solid waste management unit (SWMU) at Sandia National Laboratories was approved by EPA for Corrective Action Complete status in the past. However, corrective action was again required for the site many years later for the very reason why the site was originally listed as a SWMU (a mercury spill). I suggest removing all references to EPA's approvals in a manner to remove the unnecessary limitation on the NMED's authority. NMED should be able to re-open a site approved by EPA for Corrective Action Complete status or for any other purpose when information is discovered that suggests contaminants pose an unacceptable risk to human health or the environment.

15. Page 22. Section VII.A. The first sentence in the first paragraph should be revised to include regulations under RCRA that are specific to corrective action, in particular 40 CFR 264 Subpart F. Environmental regulations are usually more detailed, often times prescriptive, and are easier to enforce than laws.

16. Page 23, Section VII.B. The second sentence should be clarified to indicate that the Permit will not contain any requirements duplicative of the Consent Order, *except as they may apply to the five circumstances indicated in Section VII.A.1-5.*

17. Page 24, Section VII.C, last sentence indicating that the Consent Order is an enforceable document. While this may be the intent of the proposed Consent Order, as explained in my Comment 70, some descriptions of milestones in the proposed Consent Order are so vague that is questionable whether NMED could actually enforce a corrective action activity and its associated milestone in a court.

18. Page 24, Section VII.D., last sentence. I suggest clarifying to read at the end of the sentence " ...except for SWMUs and/or AOCs for which Respondent has been granted a permit modification for corrective action complete status".

19. Page 24, Section VII.F. I suggest adding the governing regulations for corrective action at 40 CFR 264 Subpart F to the list of regulatory authorities in this paragraph.

20. Page 24, Section VII.G. This paragraph and its intent should be deleted from the proposed Consent Order as it eliminates from the original Consent Order the right of public participation with regard to future modification of the Consent Order. As a consequence, the public will not be able to comment on such matters as schedules for corrective action sites beyond those currently included in the list of milestones in Appendix B of the proposed Consent Order. See also Comment 67.

I recognize that NMED and the Respondent do not want to public notice changes to the Consent Order in the future because the Order will be modified often (at least annually), and because allowing for public participation constitutes considerable work. Also the public may not agree with the new work listed in Appendix B in the future which will only be assigned with milestones after consideration of Respondent's funding levels. An unhappy public is not something the NMED wants to face.

21. Page 25, Section VII.H. This Section should be deleted in its entirety. I see no reason for NMED to give up its right to question the adequacy of, and override approvals or decisions made by EPA or Respondent concerning potential releases of contaminants into storm water from SWMUs/AOCs, whether a SWMU/AOC is covered under an existing or NPDES permit or is not.

The purposes of the Consent Order should be based on protection of human health and the environment, not on avoiding repeat work (which will be rare) just to save time and money and give an impression of progress.

22. Page 27, Section VIII.B.4.b. Why should NMED *certify* that a milestone has been met? NMED should only have to acknowledge in writing that the milestone has been met. How will NMED know that a milestone has been met when there is no deliverable to support it? What is the "specified timeframe"?

23. Page 27, Section VIII.B.4.c. This paragraph indicates that Respondent will effectively control what will be done, when it will be done, and how much money it will commit to spend on cleanup for any given time period. NMED already has knowledge of what the major corrective action priorities should be for LANL, and it should compel the Respondent to find the resources it needs to do priority work, as well as periodically complete work on lower priority corrective action sites in order to work off "low hanging fruit". The latter is fully embodied in the schedules of the original Consent Order, which was designed to reasonably into account that not all work can be done over the next few years, but instead, will have to take place over an extended period of many years. The few and sometimes vague milestones listed in Appendix B, and the lack to doing significant field work, are collectively an example of the lame efforts that Respondent will commit to unless they are compelled by the NMED to do more (see also my Comment 68). The entire concept of NMED using Respondent's project planning tools should be eliminated from the Consent Order. Instead, the NMED should do its job as it has done so well in the past under the framework of the original Consent Order.

Should the proposed Consent order not be abandoned, as it should be, NMED should specify in the proposed Consent Order the necessary "next step" for each corrective action site and require a deadline (call it a milestone if you want) to complete the step for each site (sites may be grouped into Operable Units, TAs, MDAs, or whatever type of group so long as it is clear what needs to be done for each site that falls within a group).

24. Page 28, Section VIII.B.5, first sentence. Once again, the use of the word "resources" allows for money to be a driver with regard to what kind of and when corrective action is conducted. Priorities should be based on risks to human health and the environment, not on whether Respondent can get money from Congress.

25. Page 28, Section VIII.C.3, first sentence. Yet another place in the proposed Consent Oder where priorities and milestones will be influenced by funding levels. Priorities should be based on risks to human health and the environment, not on whether Respondent can secure money from Congress.

26. Page 28, Section VIII.C.3.b. See my Comment 25.

27. Page 28, Section VIII.C.3.c. See my Comment 25.

28. Page 30, Section IX.A. I suggest adding to the end of the sentence that makes up this paragraph the following phrase: "based on current and reasonable foreseeable land use".

29. Page 31, Section IX.C. I suggest adding a sentence to the end of the paragraph to clarify that NMED must approve in work plans, reports, or other documents, the screening and cleanup levels defined by the Respondent.

30. Page 31, Section IX.D. The sentence "NMED also reviews and accepts Respondent' s recreational SSLs" should be revised to indicate that Respondent may propose, as appropriate, their recreational SSLs for NMED approval. NMED may currently accept Respondent's recreational SSLs, but Respondent's SSLs could be revised in the future to something that is unacceptable, or new information may arise that indicates that NMED should no longer support use of Respondent's recreational SSLs. Also, it is not necessary to include a phrase that "NMED also reviews" Respondent's recreational SSLs. Such review is obvious.

31. Page 31, Section IX.D, last sentence. I suggest adding the phrase to the end of sentence that states "or follow the procedures to calculate a site-specific risk-based soil cleanup level as specified in the following paragraph".

32. Page 32, Section IX.F, next to last sentence. With regard to a current and reasonable foreseeable source of drinking water, I am not aware of any groundwater at LANL that has been deemed unsuitable as a water supply. In New Mexico, all (natural) groundwater that contains less than 10,000 mg/l of total dissolved solids is fully protected. So I see no need to include a phrase in the subject sentence about whether groundwater is a suitable water supply.

33. Pages 32 and 33, Section IX.F. Normally one also screens groundwater sampling results using New Mexico Water Quality Control Commission (WQCC) standards and EPA Maximum Contaminant Levels (MCLs) for those parameters where such standards and MCLs exist. I suggest adding such a requirement, as these are enforceable concentrations.

34. Page 32, Section IX.G, third sentence. See Comment 32 with regard to a current and reasonable foreseeable source of drinking water. I suggest deleting the phrase "and when using them is protective of current and reasonably expected exposures" as it seems unnecessary given the circumstances at LANL. Also, just because groundwater is not being consumed now, or that there is no expectation that the water will be consumed in the near future, does not mean that it loses its protection.

35. Page 33, Section IX.J, first sentence. I suggest adding to the end of the first sentence the phrase ", provided the LANL ESLs are approved by the NMED as they may be updated".

36. Page 33, Section IX.J, third sentence. I suggest adding to the end of the first sentence the phrase indicating a compound sentence "; the screening level shall be subject to approval by the NMED".

37. Page 33, Section IX.K, first sentence. I suggest adding to the end of the sentence the phrase "subject to NMED approval".

38. Page 33, Section IX.K, second sentence. I suggest adding to the sentence after the phrase LANL ESLs the phrase ", as approved by the NMED".

39. Page 33, Section IX.L. A sentence following the first sentence should be added to clarify that a proposal to establish alternate cleanup standards for groundwater that involves a WQCC groundwater standard must be approved by the WQCC before NMED can accept the alternate standard (20.6.2.4103.E and F NMAC).

40. Page 35, Section X.C.1-3. The provisions described in this Section is inadequate because it lacks sufficient detail. For a newly discovered SWMU or AOC or release, the process should be modified to require Respondent to provide NMED a report describing the history of the site (as well as it is known), activities performed to screen the site, as well as present the analytical data and supporting quality control data (in other words, the report should contain the information expected for an Investigation (RFI) Report). Only by reviewing all such information can NMED make a determination that a SWMU or AOC should be added or not added to Appendix A. If Respondent cleans up the site, it should be required to also provide verification sampling results and sample locations in support of the remedial effort. Be aware that screening such sites is essentially the equivalent of a SWMU assessment, and generally, SWMU assessments are inadequate to approve a SWMU (or AOC) for Corrective Action Complete Status, often due to insufficient sampling and analysis.

41. Pages 38 and 39, Section XII.E, first sentence; and Section XII.F., first and second sentence. The language should be strengthened to indicate that Respondent **shall** include (not *may* include or *may* implement) in the Permit or Permit modification request groundwater monitoring requirements that have not been completed under the Consent Order. Bear in mind that long-term groundwater monitoring may be needed after a site is granted corrective action complete status. Respondent should be compelled to commit to monitoring. The language in the proposed Consent Order as written makes such monitoring merely a suggestion.

42. Page 40, Section XIII.C., second sentence. Each RFI work plan should also contain a schedule that can be approved by the NMED. The schedule should indicate what activities will be accomplished within some specific date or time frame, including submittal of the RFI Report.

43. Page 41, Section XIV. There is EPA guidance on what can and cannot be legally done at Areas of Contamination. One is not granted blanket approval for doing anything desired at an Area of Contamination with regard to the management and treatment of hazardous waste and media containing hazardous waste. I recommend that this Section reference EPA guidance and that a statement be added that indicates that the management and treatment of hazardous waste

and media containing hazardous waste must be consistent with EPA guidance and must meet all applicable hazardous waste management regulations.

44. Page 42, Section XV.C. The language needs to be strengthened. Respondent should be required to provide meaningful schedules that they commit to, not "estimated" schedules. If a schedule will not be met because of conditions beyond their control, Respondent can ask for, and NMED can grant, an appropriate time extension.

45. Page 42, Section XV.D. Revise to indicate a time frame by when the Respondent must provide the Interim Measures Report to the NMED.

46. Page 45, Section XVI.D.5, last sentence. Suggest revising the sentence to read: "Other criteria being equal, Respondent may give preference to a remedy that is less costly, provided the remedy adequately protects human health and the environment in consideration of current and reasonably foreseeable use of the land." Respondent should have the opportunity to cleanup a site to the lowest contaminant concentrations if they desire to, even if its costs more. In cases where the cost difference is not large, Respondents would be wise to cleanup contamination at the site to lower concentrations. The rest of the suggested revision is meant to clarify the phrase "does not sacrifice protection of human health and the environment".

47. Page 45, Section XVI.E, second sentence. For clarity, I suggest revising to state "...NMED shall review the CME Reports and shall prepare and issue Statements of Basis...". Better yet, because NMED review of CME Reports is obvious, revise: "...NMED shall prepare and issue Statements of Basis for CME Reports...".

48. Page 46, Section XVII.A, third sentence. The word "relevant" is not needed in this sentence as it should be obvious which CME Report is being used to select a remedy. However, the entire paragraph is inadequate and should be revised, as NMED should not be required to select any remedy presented in a CME Report if none of the remedies is appropriate. NMED should retain its right to require a CME be revised to include all appropriate remedies in the evaluation process.

49. Page 48, Section XIX.C. This Section (and reference to the process described in this Section elsewhere in the proposed Consent Order) should be deleted, as it completely defeats the purpose to submit the normally-required work plans for NMED to approve in advance what is to be done. It places to much trust in the hands of the Respondent to do what is right (NMED can trust, but it must verify to appropriately accomplish its mission). It is rare that a work plan is approved by NMED without some revision. Furthermore, although rare, inappropriate corrective actions can cause more harm than good; if NMED does not get to review the plan prior to implementation, then NMED will not be able to prevent or reduce the harm. Other adverse things can happen --

I've experience a case where corrective action activities were done that were not actually completed within the boundaries of the SWMU -- wasting effort, time, and tax payers dollars; the NMED had information on the actual location of the SWMU and could have pointed out to the responsible party their error before the error was made (this is also another example where past EPA oversight led to mistakes. EPA had lead oversight responsibility at the time). NMED review of work plans is of paramount importance. Before approving a work plan, NMED technical staff usually conduct field visits to the sites under investigation. I can recall many instances where I personally saw on field visits that additional work was needed to adequately investigate or clean up a site.

50. Page 48. Section XIX.E. This Section should be revised to indicate that Respondent may propose presumptive remedies, but NMED makes the decision whether a CME must be conducted. This is the normal process; a process that has worked well for many years as evident in the corrective actions completed at Sandia National Laboratories, Kirtland Air Force Base, Holloman Air Force Base, and many other facilities in New Mexico.

51. Page 49, Section XIX.E.1. The phrase "most bounding alternative" should be clarified as it is not used in common practice (and I don't know what it means). Furthermore, rather than trying to define what a presumptive remedy is based on a type of remedy, it would be better in this Section to set forth when it is appropriate to use presumptive remedies. It is appropriate to use presumptive remedies when the remedy completely removes contamination (may be based on risk considering current and foreseeable land use), is simple and efficient to implement, does not cause unacceptable risk to human health or the environment while being implemented, and does not involve cleanup of groundwater.

52. Page 49. Section XX. This Section is inappropriate and should be deleted. See my Comment 49 concerning the importance of NMED review of work plans.

53. Page 51. Section XXI.G. Unbelievable!!! This Section should be deleted because the provisions are **not protective** of human health and the environment. If contamination poses unacceptable risk, no matter its source, such site should not be granted corrective action complete status. The Respondent should be required to clean up the land to an acceptable level of risk for the intended current and foreseeable land use. The Respondent has the right to sue for relief the other land owner that is the source for such contamination.

54. Page 51. Section XXI.G. Although the entire Section should be deleted as mentioned in the previous comment, the phrase "Contaminants from anthropogenic sources" should be changed to read "Contaminants from off-Facility sources" or something similar for clarity. In environmental

cleanups, all contaminants at levels exceeding natural background concentrations are presumed to originate from human activities.

55. Page 54, Section XXIII.D, last sentence. Again, unbelievable!!! This sentence should be deleted as the provision is **not protective** of human health and the environment. In all the years I worked at NMED, it was well known that NMED did not have and currently does not have sufficient resources, especially staff, to oversee LANL. This would be especially true should LANL actually accelerate much of its corrective action activities.

56. Page 55, Section XXIII.F.3, second sentence. The phrase "and shall not apply to other documents" should be deleted. If a deficiency is identified in a document, that should not always mean that NMED cannot identify the same deficiency in other or future documents, and take appropriate actions.

57. Page 59, Section XXV.E, first sentence. Language should be added that the NMED will pay for and choose the mediator to ensure integrity of the process, should unbinding mediation be used.

58. Page 62, Section XXVII.E, last sentence. Again, unbelievable!!! This sentence should be deleted as the provision is **not protective** of human health and the environment. Furthermore, the provision does not meet the regulatory requirement at 40 CFR 264.101 (c). While the NMED has the discretion to demand or not demand stipulated penalties, the Respondent under the above cited regulation is not relieved from its responsibility to cleanup a site subject to the described conditions.

59. Page 64, Section XXVIII.D, last sentence. This Section should be revised to indicate that NMED may transmit its decision by phone call or email, to be followed up within 30 days with written correspondence.

60. Page 66, Section XXXIII, second sentence. This is a significant difference between the original and proposed Consent Orders, and eliminates public participation with respect to modification of the Consent Order. See also Comment 67.

61. Page 67, Section XXXIV.A, last sentence. I question whether the covenant not to sue should survive after the Consent Order terminates. What, for example, will happen if new information arises that indicates that a site cleaned up or investigated under the Consent Order has not been cleaned up to levels protective of human health or the environment, and the Respondent refuses to take additional corrective actions? Does the covenant not to sue limit the enforcement options for the NMED?

62. Page 69, Section XXXV.A.5, last sentence. This provision, albeit present in the original Consent Order, is inconsistent with other enforcement policy. It essentially provides that noncompliance with the Consent Order for enforceable milestones will not be punished until such time it is discovered by the NMED, and only for the time since it was discovered and noticed. While this reduces monetary penalties for Respondent, I see no benefit to New Mexico. It weakens enforcement and should be deleted.

63. Page 70, Section XXXV.C, last sentence. NMED should not limit its enforcement capability, including the right to seek additional civil penalties, simply because a deadline (milestone) was missed, and the NMED received a payment for the missed deadline. For example, groundwater contamination can take decades to achieve final cleanup, and it could cost hundreds of millions of dollars (KAFB Bulk Fuels Spill for example). The Respondent could elect to pay the stipulated penalties for years on such a site to delay corrective action until such time Congress felt like funding them. Delete accordingly.

64. Page 71, Section XXXVII. A provision should be added to indicate that NMED acting unilaterally can terminate the Consent Order at any time for any reason, and replace it, as appropriate, with another consent order, or permit, or other enforceable document. Future NMED administrations should not have to suffer the burdensome requirements being set forth in the proposed Consent Order for the agency, or try to work around the unwarranted, and in some cases illegal, advantages to be surrendered to the Respondent. Even if the extensive defects of the proposed Consent Order are remedied in the final version, through experience, I can say that there have been situations where the NMED would not want to continue its regulatory oversight under an existing Order.

**Comments on Appendices**

The following comments concern appendices of the proposed Consent Order. Because I am not familiar with the details of LANL corrective action sites, I will not comment on individual SWMUs or AOCs. Instead, my comments will be general.

65. Appendix A. It is astonishing that there are 124 SWMUs/AOCs that are considered "Deferred Sites" at LANL. It is well known that the DOE and the Department of Defense are using the military munitions rules, and the fact that they alone can keep ranges open (active or inactive), as a means to delay cleanup of ranges. Sandia National Laboratories (SNL) has many SWMUs that are or were firing or detonation ranges. Only a handful of such SNL sites have been declared by SNL as operational (not closed). SNL does not want to be in the business of conducting corrective action for the long term, and accordingly dealt with their sites as

expeditiously as possible. I believe they also dealt with their sites as soon as possible because it was the right thing to do. I commend SNL for this.

However, I seriously question whether the future LANL missions are likely to be conducted at most or all of these 124 different sites. Perhaps NMED should question LANL management on this matter if the goal of the proposed Consent Order is to expedite clean up.

66. Appendix B. Because targets and their associated deadlines are not enforceable, they could be deleted from the Appendix without reducing the enforceability of the Order. Such unnecessary information can be kept separate for later use by those involved with future modifications of the Consent Order.

67. Appendix B. The Consent Order replaces the requirements normally included in a Hazardous Waste Permit. Thus, the basic provisions for corrective action that are normally found in a permit should be replicated in the proposed Consent Order. The regulation at 40 CFR Part 264.101(a) specifies that "The owner or operator...must institute corrective action as necessary...for **all** releases of hazardous wastes or constituents from any solid waste management unit at the facility..." (emphasis added). Furthermore, 40 CFR Part 264.101(b) states "Corrective action will be specified in the permit...The **permit will contain schedules** of compliance for such corrective action..." (emphasis added). A hazardous waste permit when first created is subject to public review and comment as a draft. An incomplete permit cannot be reviewed by the public -- what does not exist cannot be reviewed. The proposed Consent Order is subject to public review as a draft in a manner similar to a Class 3 permit modification request as required under the existing Consent Order at Sections III.J.1 and III.W.5, 40 CFR 270.42(d)(2)(iii), and C.8.a of Appendix I of 40 CFR 270.42. The proposed Consent Order is incomplete as it fails to provide enforceable schedules for all corrective action sites (SWMUs and AOCs). Again, the public cannot review what doesn't exist. Because the proposed Consent Order also eliminates public review and comment on the future modification of the Consent Order (for example, modifying the milestones in Appendix B), the public will be denied the opportunity to comment on corrective action schedules (at least the initiation of corrective action) for many, and perhaps most of the SWMUs/AOCs at LANL that have not advanced to date to the stage where a Certificate of Completion has already been issued.

68. Appendix B. Given that there appears to be a 1000 or more SWMUs/AOCs at LANL, the amount of work associated with the milestones in the proposed Consent Order seems too little if the goal is to accelerate completion of all corrective action activities at LANL. Most of the milestones involve what appear to be just submittal of documents that are just status reports or risk assessment reports that require comparatively little effort or funding to prepare. Because little field work or other complex work appears to be included as milestones, I surmise that

NMED accepts that little progress under the new Order is initially to be made. This seems contrary to the "guiding principle" mentioned in Comment 9 concerning wanting to accelerate corrective action.

69. Appendix B. For the RDX IM and Remedy Campaign, the aquifer test and tracer test results with analysis of the data (i.e. a Report), are to be deferred (they are to be included in the CME). An analysis of an aquifer test in particular is a technically complex task and is a part of site characterization. It is inappropriate to include such as analysis at the CME stage. Instead, the analysis should be completed before the CME stage. I also question the inclusion of tracer test analysis (Report) in a CME. A tracer test is part of site characterization. Normally only the results of aquifer and tracer tests would be summarized in a CME and the source documentation referenced. If the NMED did not accept the results of such tests it could completely derail the CME process -- wasting time, effort, and funds. I'll add that the only reason I see for adding the analysis of aquifer and tracer test results in the CME is to relieve Respondent from initially having to find money to do this work. Given how little work is being committed to in Appendix B of the proposed Consent Order, I speculate that LANL doesn't currently have much funding on hand for corrective action. Regardless, it's unreasonable to include analysis of site characterization data in a CME. I note that the purpose of the CME, as specified in the proposed Consent Order in Section XVI.B, does not mention doing site characterization work at the CME stage.

70. While milestones are supposed to be enforceable schedules, the descriptions of some the milestones are so vague (for example, exactly which sites within aggregates of sites require the action) that NMED may not prevail in court if the Respondent fails to meet a milestone and challenges the demand for stipulated penalties. The milestones should be clarified by adding more detail as to exactly what is to be done for each site where there are multiple sites involved in some kind of aggregated area (e.g. MDA, TA, Operable Unit, Watershed, or whatever grouping of sites).

71. Appendices E and F concern the NMED's expectations for field investigation procedures and major contents of corrective action documents. As indicated above, including prescriptive requirements in the original Consent Order for field investigation procedures and contents of corrective action documents was a necessity as Respondent and its contractors were submitting inadequate documentation in support of what were also inadequate investigations. While these prescriptive requirements are enforceable under the original Consent Order, they are now to become mere suggestions through the proposed Consent Order. This is an example of going backwards, rather than forward with corrective action at LANL, should the proposed Consent Order be finalized as currently written.

**Request for Hearing**

72. I request that a public hearing be held in this matter as required under Section III.W.5 of the Consent Order (currently in effect), and in accordance 20.4.1.901.A.5 NMAC. My comments above provide justification for this request.

**Final Thoughts**

The proposed Consent Order, as written, will not serve in the best interest of the people of New Mexico and should be abandoned. The existing, original Consent Order has worked well and would continue to work well, is a by far superior Order than what is now being proposed, has stronger enforcement provisions, and was prepared in negotiations with the intent to get the best agreement for New Mexico with respect to meeting the regulations and protecting human health and the environment. The proposed Consent Order, if finalized as written, will lock NMED into a bad deal for decades to come.

In my opinion, you, Ms. Roberts, should have no involvement with this matter --- the preparation of a complete replacement of the existing LANL Consent Order. You worked for LANL just prior to your current position with the NMED, and at minimum, this gives the perception of a conflict of interest. I know you to be a good person, and I would not like to see your good reputation forever tainted. I call upon your management to excuse you from this matter, as they know, or should know, should be done.

I cannot help but ask who prepared the proposed Consent Order because what is before the public is so bad, and so not in the best interest of New Mexico that it is shameful. The proposed Consent Order does not represent the high quality of a work product that normally would be produced by the NMED HWB. Because I worked for them up to the end of last year, I know that the leadership of the HWB has cumulatively decades of experience, that some of the HWB managers worked on the original Consent Order, and that they are highly competent, and have worked on LANL corrective action for decades. Furthermore, I know there are highly competent technical staff that currently work for the HWB, and competent staff that have considerable experience in writing permits and orders. I worked frequently at NMED over the past several years with several attorneys with the Office of General Counsel that I also know to be highly competent. So I ask -- did anyone from HWB actually participate from start to end in any meaningful way in the preparation of the proposed Consent Order? Did HWB try to assist but was ignored? Was the proposed Consent Order reviewed by the Office of General Counsel? Was counsel ignored?

Please place my comments in the Administrative Record for this matter.

Sincerely,

*signed*
William P. Moats