Communities for Clean Water

A Northern New Mexico Network

1 June 2015

Ms. Phyllis Bustamante, Acting Chief
Ground Water Quality Bureau
New Mexico Environment Department
Harold Runnels Building, Room N2250
1190 St. Francis Drive
Santa Fe, NM 87545

Re: Ground Water Discharge Permit No. DP-1132 (Los Alamos National Laboratory Radioactive Liquid Waste Treatment Facility)

Dear Ms. Bustamante:

Communities for Clean Water ("CCW") responds as follows to the proposed draft permit forwarded on May 21, 2015 to citizens participating in the comment process. Concerned Citizens for Nuclear Safety ("CCNS"), a member of CCW, has reviewed the comments and is in full agreement with them. Collectively, we have the following observations:

1. Electronic Public Reading Room ("EPRR") postings: Condition 49: CCW objects that all documents required to be submitted by the Permittees to the New Mexico Environment Department ("NMED"), and the NMED response, are not required to be posted to the EPRR. Under protest, we propose the following Mandatory and Voluntary Postings. [The list will be similar to comments we will submit on June 12, 2015 for the final draft permit, DP-1793]:

Mandatory Postings:

Notification of changes; NMED response

Plans and specifications; NMED response

Final construction report; NMED response

Secondary containment verification; NMED response

Actual or potential water tightness failure; NMED response

Containment; NMED response

Damage to structural integrity; NMED response

Freeboard; freeboard exceedence; exception request; NMED response

Effluent exceedence; NMED response

Emergency response procedures; NMED response

Report re installation and calibration of flow meters; NMED response

Soil moisture monitoring system exceedence; NMED response

Two alluvial groundwater wells replacement; NMED response

Monitoring well location; NMED response

Monitoring well construction; NMED response

Groundwater report re exceedence and correction; NMED response

Spill or unauthorized release; NMED response

Failure of discharge plan/discharge permit; NMED response

Report re stabilization of units; NMED response

Closure plan; NMED response

Final closure; NMED response

Postclosure groundwater monitoring; NMED response

Termination; NMED response

Voluntary postings:

Annual Update – due February 1 – includes summary of maintenance and repairs made during reporting period; water tightness testing results (VI.A.8); settled solids measurements and settled solids removal (VI.A.10); and groundwater flow report (VI.A.27).

Quarterly monitoring reports: Condition 24 – includes:

Monitoring and repair: Condition 13

Influent volumes LLW – Condition 25

Influent volumes TRU – Condition 26

Discharge volumes – Condition 27

Effluent sampling – Condition 29

Groundwater monitoring – Condition 36

2. Signage and entry restrictions: Conditions 5 and 6: At the April 16, 2015 meeting, Permittees said they would set up meetings with key CCW members to discuss and try to resolve signage and entry concerns, as well as emergency response procedures. No one representing the Permittees has contacted Kathy Sanchez or Marian Naranjo, respectively, on these subjects. This is a prime example of why communication with the Permittees must be made mandatory – as in postings of all documents submitted to NMED under this permit to the EPRR.

The new language in the draft is helpful, but the problem remains of the risks to persons on Pueblo de San Ildefonso land, where potential flows may disturb and transport contaminants. It is insufficient to post signs on "shared boundaries." CCW proposes that the Applicants simply supply a quantity of signs (say, 12) with wording in the appropriate

dialect of Tewa and in English and the Pueblo authorities can place them in appropriate locations.

3. Water tightness testing: Condition 8: We welcome the change from 540 days to 180 days for water tightness demonstrations. In addition, at the meeting on April 16, 2015, we reiterated the need for the pipe connection between the Radioactive Liquid Waste Treatment Facility ("RLWTF") and the Solar Evaporative Tanks ("SET") to be double-walled. The draft permit does not respond to this proposal. CCW proposes that double containment be required in this important underground connection. Tritium-contaminated water will be transported in the pipeline. CCW has submitted extensive comments showing that DOE's own orders require secondary containment of pipelines. *See*, "Implementation Guide for use with DOE M 435.1-1, Chapter IV Low-Level Waste Requirements," IV.M.(2)(c), "Low-Level Waste Treatment and Storage Facility Design" and IV.M.(2)(e) "Monitoring." We do not understand why the pipeline was not designed for secondary containment. Settlement of the recent LANL fines could facilitate secondary containment of the pipeline. Further, CCW submits that the words "single-walled" should be inserted before "conveyance line from TA-50" into the description of the SET in section V.D. (p. 10) to accurately describe the SET.

4. Settled solids removal from SET, MES: Condition 10: Permittees have proposed new language, stating that the terms apply to the SET and Mechanical Evaporative System ("MES") "if applicable." CCW submits that these units will invariably be "open units and systems that are designed to store or dispose of a liquid or semi-liquid through evaporation," as described. Next, the draft permit contemplates submission of a plan to remove settled solids that exceed the permissible depth (or are

planned for removal) and a 120 day delay while the plan is reviewed. CCW submits that the settled solids should be removed as promptly as practicable, since the buildup may create risks of release of liquids. Some extended period of review may be needed the first time this process is carried out, but surely not every time thereafter. Permittees should now have a plan to remove solids from the SET and MES and should make it available as part of this permit process, since such removal is an inevitable part of operation. And the permit should call for removal of solids within 30 days after the identification of the problem and should allow an additional delay only if NMED makes a record that it needs time to review the plan.

5. Secondary containment verification: Condition 7: Similarly, CCW believes that 180 days following the effective date of the permit is too long for the Permittees to verify secondary containment.

6. Maintenance and repair and structural integrity damage: Conditions 13 and 14: The new draft attempts, correctly, to direct the process of remediation more specifically, here requiring a written corrective action plan. CCW questions whether a delay of 90 days before such a plan is submitted is appropriate, since the necessary action may be obvious. Thirty days is more appropriate, with an extension available for good cause. Moreover, by hypothesis the detected problem is at least potentially dangerous, and the condition should state that the equipment should normally be taken out of service, unless the Permittees can show that the damage is very unlikely to cause an actual risk before it can be repaired. In addition, equipment should be required to be maintained in accordance with manufacturer's specifications.

7. Effluent exceedence: Condition 18: Subpart (b) should state whether the notification to NMED GWQB is required to be oral and/or written.

8. Emergency response procedures: Condition 20: The discussion on site underscored the distinction between emergencies requiring action by RLWTF staff and those requiring involvement of outside, usually first responder, personnel. The new text says that the Incident Command System ("ICS") is used in response to all emergencies. ICS should be made a defined term and regulatory or other specific citations provided.

The new language appears to state that the emergency response procedures will follow the structure of the ICS and will be made available to the public. Under the ICS, procedures are pre-established and sanctioned by participating authorities. Since in any significant emergency, the authorities from one or more nearby pueblos will necessarily participate in the response, it is implied that such pueblos will be incorporated into the ICS structure and thus informed of any emergency affecting such pueblos and incorporated into the response by prior agreement. Please confirm this understanding. Further, CCW supports an annual review of the emergency response procedures. The emergency response procedures should address any exceedences of effluent limits and should state a time limit for remediation of violations.

9. Installation and calibration of flow meters: Conditions 21, 22: The new draft permit states that flow meters are to be installed within 180 days of the effective date of the permit. It has not been explained why it might take six months to install four meters, which are basically off-the-shelf gaging devices. These meters are almost the only guaranty that the basic flow processes of the RLWTF are operating as designed. They should be installed promptly; 30 days is not unreasonable.

We also see that the new draft allows meter operation within plus or minus 10% of actual flow. Since the meters are important components of the oversight of RLWTF's operation, and since much closer tolerances are entirely feasible, it is not correct to attempt to justify a needlessly broad range of variability based on asserted undated NMED "policy." In comments to various iterations of the draft permit, including on November 14, 2014, CCW has provided information that ISO 17025-certified meters can achieve +/-0.05 percent accuracy" and "measuring uncertainties of +/- 0.1% of rate are achievable with modern flowmeters." We do not understand why calibration rates of 100 to 200 times greater are considered appropriate in the draft permit. Further, CCW submits that the single-walled conveyance from the RLWTF to the SET should have flow meters at both ends of the pipe. And, learning from the recent Santa Barbara oil spill, a shutoff valve should be installed at the beginning of the pipeline – as shown in the SET engineering drawings.

10. Waste tracking: Condition 28: We probably do not have a difference in principle about the waste tracking records, but CCW does think the language proposed by Permittees is somewhat confusing. The basic question in the background is: Are the required records to be forward-looking, thus, to show the quantities of wastes that are authorized to be received and planned to be disposed, or are they backward-looking and, thus, to show the quantities of wastes that were actually received and were disposed of over (say) a given year? We suggest that it is more important for regulatory purposes to show the historical data. Thus, we would take the language in the draft permit and add "current" in the first line after "maintain," in (b) say "time period for which the Permittees approved," in (d) say "days per year discharge occurred" and "each year when

discharge occurred." In the second new paragraph, say "Permittees shall also maintain" and refer to "records of all waste streams conveyed from the facility, including but not limited to: Radioactive Liquid Waste Bottoms . . ."

11. Soil moisture monitoring: Conditions 30-31: We think it essential to establish scientific baseline conditions under the SET before it receives any water. Under the draft permit, that is possible but not assured. CCW requests that the initial monitoring data be taken before the SET is used for waste. In the alternative, the permit should prohibit use of the SET until the baseline conditions are established. Second, the permit should specify distinct criteria for the establishment of an action level. The permit should define the action level. We submit that the action level should be based upon (a) sensitivity of the monitoring equipment, (b) observed seasonal variation, such that the action level may vary with different seasons, (c), placement of sensors in space, (d) rate of change in moisture levels, (e) the observable impact of a 100 and a 500 gallon leak, (f) observable changes in the shape of a plume, and (g) depth of observed moisture. Further, the quarterly monitoring events and maintenance or repair of the soil moisture monitoring system should be required to be reported quarterly. CCW also questions why the Permittees have 15 days following discovery of a soil moisture increase beneath the SET to notify NMED. Oral and/or written notification should be made within 24 hours. CCW is concerned about providing a lengthy 60 days for the Permittees to identify the source; plus another 30 days if the exceedence is demonstrated to be associated with a leak from or breach of the SET. In the event that the exceedence is not associated with a failure of the SET, the Permittees have 120 days to submit a corrective action plan. These periods are too lengthy to promptly address a leak. Lastly, to provide transparency about the data

from the soil moisture monitoring, the quarterly results should be required to be included in the quarterly monitoring reports.

12. Ground water wells and monitoring: Conditions 32-36: Some improvements in the draft permit are needed: Some existing wells have extended screens. Thus, in Condition 34, the permit should state in the first sentence, "hydrologically downgradient in the stratum it is intended to monitor from the potential or actual discharge location it is intended to monitor . . ." There are other concerns. Condition 35 authorizes NMED to require a replacement well, but the authority is limited to instances where the existing monitoring well has "insufficient water" or is "not completed in a manner that is protective of ground water quality." However, a monitoring well may need replacement for other reasons, such as contamination by drilling chemistry or other defects in its construction. NMED must not be unduly limited in its authority to call for a new well.

13. Ground water wells: replacement of two existing wells: Condition 33. The title should include the word "Alluvial."

14. Ground water exceedences: Condition 37: This new condition correctly addresses any exceedence of a ground water quality standard or presence of a toxic pollutant. Nevertheless, CCW questions why the permit places the burden on the NMED to determine if there is an exceedence. CCW submits that the permit should require the Permittees to report an exceedence to NMED clearly in the cover letter forwarding the ground water investigation/source control workplan. NMED identified the need for such requirement when the Permittees buried chromium exceedences in report tables without specifically stating exceedences in the cover letter. As a result, NMED took

administrative action and fined the Permittees. As part of the settlement, specific reporting requirements mandate notification in the cover letter to NMED of any exceedences.

15. Spill or unauthorized release: Condition 38: This Condition is parallel to Condition 37. Under the draft, Conditions 37 and 38 may overlap, since Condition 37 is not excluded by the "other than" language in Condition 38. Neither is "spill" or "release" a defined term. The difficulty is that Condition 38 requires the Permittees to submit a corrective action report and plan within 15 days of discovery of the release, whereas Condition 37 allows the Permittees to await a notification from NMED and then submit an investigation/source control work plan within 60 days. While different releases of toxic pollutants may present different levels of urgency, it should be NMED's decision, not the Permittees', at which level of urgency to place a given event. Conditions 37 and 38 should be combined, swift initial reporting should be required, and NMED should set the schedule for subsequent actions.

16. Operation cessation of specific units: Condition 40: CCW submits that this condition should include requirements for the Permittees to notify NMED orally and/or in writing within 24 hours if the 75K tank is used for emergency storage and include that information in the quarterly monitoring report.

17. Stabilization of individual units and systems: Condition 41: Under the draft permit, the five units listed in Condition 41 would cease operations 60 days after the permit issues and the Permittees would submit a work plan to stabilize these units within 120 days after ceasing operations—i.e., 180 days after the permit issues. For comparison, Condition 42 would require the Permittees to submit their closure plan within 180 days of

the issuance of the permit. The "stabilization" plan and the "closure" plan can be expected to follow similar principles. These plans will raise similar novel and difficult issues as to the methods to close sites that are located in a highly developed location, monitoring methods in such locations, and permissible future uses. CCW submits that these important issues should be addressed as part of the permitting process and not as a follow-on action, occurring without effective public comment and participation.

18. Closure plan: Condition 42: As stated above, CCW does not agree that the Closure Plan is not part of the draft permit and subject to public hearing. The draft permit should state expressly that NMED will issue public notice about the public comment period, pursuant to 20.6.2.3108 NMAC.

19. Integration with Consent Order: Condition 46: This new provision states that the investigation, characterization, cleanup, and corrective action at the site of the RLWTF shall be conducted solely under the Consent Order and not under the permit. Given that many critical actions, if taken under the discharge permit, may have no public participation, it seems correct to conduct them under the Consent Order. We note that SWMU 50-001(a), SWMU 50-002(a), Consolidated SWMU 50-002(b) and AOC 50-001(b) will not be investigated under the Consent Order until after decommissioning of the RLWTF. *Corrected ENV-DO-14-0229, Request for Additional Information, Discharge Permit Application DP-1132, Radioactive Liquid Waste Treatment Facility,* ENV-DO-14-0247, LA-UR-14-26444, September 11, 2014.

20. Description of MES. V.D. (p.10). CCW submits that the description of the MES should include the facility numbers for the units, as provided in the SET description.

21. Quarterly reports. A new condition should be added that lists all of the information that is required throughout the permit to be submitted in the quarterly reports to NMED, similar to that provided in Condition 1 for the annual report. *See* list in Comment No. 1.

22. Correction to Permittees' May 20, 2015 cover letter: "CCW" is the acronym for "Communities for Clean Water" – not "Citizens for Clean Water." Jonathan Block represents CCNS, Lindsay Lovejoy represents CCW.

We thank you for your consideration of these comments and look forward to your action thereon.

Very truly yours,

/s/ Lindsay A. Lovejoy, Jr.

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