Communities for Clean Water

A Northern New Mexico Network

December 6, 2013

Mr. Jerry Schoeppner, Bureau Chief
Ms. Jennifer Fullam, Environmental Scientist
Ground Water Quality Bureau
New Mexico Environment Department
P.O. Box 5469
Santa Fe, NM 87502-5469
Via email to: Jerry.Schoeppner@state.nm.us
Jennifer.Fullam@state.nm.us

Re: Comments and Hearing Request of the *Communities for Clean Water*, *Tewa Women United* and three individuals on the proposed permit DP-1132 for the Radioactive Liquid Waste Treatment Facility ("RLWTF") at Los Alamos National Laboratory

Dear Mr. Schoeppner and Ms. Fullam:

Following below are the first set of Comments and the Hearing Request of *Communities for Clean Water* ("CCW"), *Tewa Women United* ("TWU") and individuals *Kathy WanPovi Sanchez, J. Gilbert Sanchez* and *Robert H. Gilkeson, Independent Registered Geologist*, as referenced above. We will submit a second set of Comments before the close of the public comment period on December 12, 2013.

Our Comments and Hearing Request are introduced by a section entitled "Background Information" which provides a brief description of the history and composition of CCW, TWU, and the individual commenters, so that your agency and the Secretary-Designate understand the basis and existence of the substantial public interest in the RLWTF permit. In the event that final terms of the permit cannot be negotiated by the commenters, your agency and Los Alamos National Laboratory ("LANL"), there is substantial public interest sufficient to warrant a public hearing--and we specifically request that a public hearing be held.

Additionally, we have divided our comments into two other sections: general and specific permit comments. The general comments raise long-standing issues in relation to the issuance of this permit. The specific comments address what we view as necessary, substantive changes in the permit.

I. BACKGROUND INFORMATION

A. Organizations and Persons Commenting and Requesting A Hearing;

1. CCW, Tewa Women United and Kathy WanPovi Sanchez, J. Gilbert Sanchez and Robert H. Gilkeson.

CCW is a network of non-governmental organizations comprised of *Amigos Bravos, Concerned Citizens for Nuclear Safety* (CCNS), *Honor Our Pueblo Existence* (H.O.P.E.). *Tewa Women United* and individuals, Kathy WanPovi Sanchez, J. Gilbert Sanchez and Robert H. Gilkeson, Independent Registered Geologist, join CCW in submitting this first set of comments. Collectively, our members live downwind and downstream of LANL and are concerned about the discharge of up to 40,000 gallons per day of effluent from Technical Area 50 ("TA-50") into Mortandad Canyon and the evaporation of radioactive tritium and other pollutants into the atmosphere, the subject of the draft permit. The members of CCW and TWU, along with the individuals, represent a significant number of persons who are interested in the determinations on this permit.

CCW History. After the catastrophic Cerro Grande fire in 2000, Concerned Citizens for Nuclear Safety (CCNS) became alarmed about the transport of toxic materials off the LANL site into the Río Grande watershed. CCNS organized a conference that summer that drew over 450 participants. Amigos Bravos joined the effort in 2003, investigating stormwater discharges at LANL. The *Embudo Valley Environmental Monitoring Group*, which investigated downwind LANL impacts to their watershed, began collaborating in 2005. *Honor Our Pueblo Existence* (H.O.P.E.), a Pueblo Nation community-based organization, later joined the effort with a particular concern for the cultural impacts of LANL toxics. These groups formed the core that in early 2006 became *CCW.*

Starting in 2006, *CCW* pursued two independent, but related activities: (a) a campaign to prevent migration of LANL toxics to the Rio Grande watershed; and (b) an outreach campaign directed at impacted communities, the media, and public officials. CCW began questioning the adequacy of LANL's Environmental Management ("EM"). When it became clear that LANL's EM activities were inadequate and not likely to improve, members of CCW joined with other community-based organizations, including *TWU* and individuals, Kathy WanPovi Sanchez and J. Gilbert Sanchez, in March 2008 to file a Clean Water Act citizen complaint against United States Department of Energy ("DOE") and LANL for wide-ranging and chronic stormwater-related violations. Filing the lawsuit won *CCW* an invitation in late 2009 to participate in LANL's first Individual Stormwater Permit ("ISP"), issued by the Environmental Protection Agency ("EPA"). When the draft ISP failed to provide enough assurances, *CCW* filed an administrative appeal with the EPA, which led to another year of negotiations. In 2010, EPA approved what they have said is one of the strongest individual stormwater permits in the country.

With many of the stormwater issues resolved in the ISP, the litigation was settled in April 2011, after two years of negotiation resolved many of the remaining issues, especially providing for greater public input and financial support for technical experts to support that public input.

In order to protect public health, welfare, safety and the environment, the goals of *CCW* are to:

- Create a broad community-based movement.
- Protect precious water resources from contamination now and for the benefit of future generations.
- Hold local, state and federal regulators accountable to use their regulatory and enforcement powers and fulfill their public trust responsibilities.
- Hold LANL and those degrading the environment accountable for water contamination.
- Ensure the highest possible level of clean up at contaminated sites.

Tewa Women United ("TWU") History. TWU is a collective intertribal women's voice in the Tewa homelands of Northern New Mexico. The name Tewa Women United comes from the Tewa words *wi don gi mu* which translates to "we are one."

TWU was started in 1989 as a support group for women concerned with the traumatic effects of colonization leading to issues including alcoholism, suicide, terricide, environmental violence and domestic and sexual violence. In the safe space women created, we transformed and empowered one another through critical analysis and the embracing and re-affirming of our cultural identity.

In 2001 TWU transitioned from an informal, all volunteer group to a formal 501(c)3 non-profit organization.

Tewa Women United was incorporated for educational, social and benevolent purposes, specifically for the ending of all forms of violence against Native Women and girls, Mother Earth and to promote peace in New Mexico.

The Vision of TWU. Sovereignty is living the truth from the heart. TWU's vision is embodied in the Tewa words *wo watsi* the breath of our work. In other words, our path of life follows us into daily work.

The Mission of TWU. The mission of TWU is to provide safe spaces of Indigenous women to uncover the power, strength and skills they possess to become positive forces for social change in their families and communities.

Kathy Wanpovi Sanchez resides at the Pueblo de San Ildefonso. She is not representing the Pueblo de San Ildefonso in this matter. She is a fourth generation potter of the Julian and Maria Martinez family lineage. She has had direct contact with her great grandmother, Maria. The oral tradition wisdom and life narratives transmitted to her go back a very long, long time. What she refers to as sacred is where Los Alamos National Laboratory is located. It is her ancestral homeland. It is a sacred place that holds the present and ancestral energy of being.

J. Gilbert Sanchez resides at the Pueblo de San Ildefonso. He is a former Governor of the Pueblo. He created the Pueblo's Environmental Protection, Cultural Preservation and Land Management Offices. He served as Director of the Los Alamos Pueblos Project. In this matter, he does not represent the Pueblo de San Ildefonso. He sat on the State and Tribal Working Group at the Department of Energy Secretarial level for 12 years and on the Board of Scientific Counselors as a Community Representative for over 12 years.

Robert H. Gilkeson, Independent Registered Geologist, is a former contractor at LANL, specializing in the Environmental Remediation Programs and Groundwater Protection Programs. He was a research scientist at the University of Illinois for 17 years. Over the past decade, he has provided *pro bono* technical expertise to CCW, TWU and the individuals Kathy WanPovi Sanchez and J. Gilbert Sanchez about the seismic, groundwater protection and waste remediation issues at LANL.

B. The Permit History And Need For Additional Time And Documents.

1. The Permit First Drafted In the 1990s. NMED first released a draft permit for public comment in the mid-1990s. CCNS, through its staffer, Susan Diane, asked for a public hearing. There were delays, until 2005, when NMED released a draft permit for public comment. On August 4, 2005 Amigos Bravos, represented by the New Mexico Environmental Law Center, submitted comments and requested a public hearing. Letter to William C. Olson, NMED, from Attorney Douglas Meiklejohn (August 4, 2005), attached hereto as Exhibit 'A'.

For the third time, the public provides these public comments. We appreciate that NMED provided a 90-day public comment period given the amount of public interest in the RLWTF. We incorporate our previous comments by reference in order to demonstrate the longstanding significant public interest in this permit.

2. Requests for extension of time to submit comments and obtain necessary background documents have been denied. We made a request to NMED for an extension of time to submit these comments due to the October 2013 federal government shutdown, which was denied. Further, we have requested data and documents from the Permittees and the EPA, which responses have been incomplete. Additional effort was required to obtain the needed information in order to provided informed comments to NMED. On November 27, 2013 we filed Freedom of Information Act requests with the DOE and EPA in order to obtain data and additional information from both the DOE/LANL and EPA about tritium emissions from both evaporation units. If there are additional delays in obtaining the data and documents, we request the opportunity to provide additional comments following the completion of the comment period on December 12, 2013. We believe additional time should be provided.

II. GENERAL COMMENTS ON THE PERMIT.

A. Introduction: Acknowledging Our Government's Occupation and Pollution of Sacred Places. We begin by acknowledging the sacred place where the discharges are occurring. LANL is discharging into the ground and making emissions into the air in the Sacred Mountains of the Pueblo Peoples who were told by the U.S. Government that the Pajarito Plateau would be used for a short time and then it would be returned to the People. The Plateau has been used, and projected for use, by the U.S. Government for at least the next 50 years. One hundred and twenty years is not a short amount of time.

1. Section 43. Need for Closure and Post-Closure Plans for TA-50 Now – Not 180 Days Following the Issuance of the Permit. NMED must require the DOE and LANL (the "Permittees") to provide the closure and post-closure plans for the RLWTF as part of their application for groundwater discharge permit DP-1132. *See* 20.6.2.3107(A)(11) NMAC (closure plan required that will "prevent the exceedance [water quality] standards . . . in ground water or abate such contamination"). The draft permit allows for DOE and LANL to submit the closure plans 180 days following the issuance of the permit. This creates a situation that places both the public and NMED at a distinct disadvantage and creates a substantially increased cost of the permitting process at a time when state resources are scarce. Both the public and the Ground Water Quality Bureau need to see both the plans for operation and closure of the 50-year old facility now in order for the agency to craft an appropriate permit and the public to provide informed public comments. By bifurcating the permitting process from the closure process there will have to be two permit proceedings which will cost NMED and the public time, resources and money. By including the closure and post closure plans with the permit – as required -- both public and agency resources are appropriately conserved and a higher level of informed decision-making can be achieved. That is a benefit to NMED, and the public it serves. Moreover, requiring the closure plan before the time of

permit issuance will also conserve federal tax dollars, as LANL, a federally funded facility, will only have to undergo one ground water permitting process for the RLWTF.

DOE and LANL have already had more than ample time to prepare the closure and post-closure plan for this facility. A draft of discharge permit DP-1132 was issued in 1995 and on June 10, 2005. In response to the draft permits, public comments were submitted that raised the requirement for the inclusion of a closure and post-closure plan. Seventeen years and eight years of notice is more than a reasonable amount of time for LANL to fulfill the legal requirement that it provide its closure and post closure plans with its permit application for the RLWTF.

Please carefully consider this conservative approach to the permitting of TA-50 in which all sides save money and time. The Ground Water Quality Bureau should require DOE/LANL/LANS to submit the closure and post closure plans for agency review now and before issuance of a revised permit.

2. We note that the Outfall 051 discharge pipe is surrounded by the Los Alamos County drinking water wells. NMED states in the draft permit:

> The discharge from the Facility is within or into a place of withdrawal of ground water for present or reasonably foreseeable future use within the meaning of the [Water Quality Act], NMSA 1978, § 74-6-5.E.3, and the [Water Quality Control Commission] Regulations at 20.6.2.3103 NMAC. Section IV. Findings, p. 9.

Los Alamos County residents rely upon the regional aquifer for 100 percent of their drinking water. The ground water of TA-50 is a present and future source of drinking water: a place of withdrawal of ground water for present and reasonably foreseeable future use within the meaning of the Water Quality Act, *id.* at , § 74-6-5.E.3 and Water Quality Control Commission Regulations at 20.6.2.3103 NMAC. We have a special concern about protecting the present and future use of the drinking water supply as required by the New Mexico Water Quality Act (WQA) and regulations adopted pursuant to the WQA.

At issue are numerous radioactive and other hazardous contaminants that have been, and continue to be, discharged by LANL into Mortandad Canyon. These pollutants – including known carcinogens – are migrating into the regional aquifer. Besides the detrimental effects of such discharges on human and environment health, it is feared that some of these pollutants will enter the drinking water supply of Los Alamos and communities downstream of LANL.

3. **LANL has several reports going back to the 1970s of its studies on the need and efficacy of turning the RLWTF into a "zero discharge" facility.**[1] In its application, as well previous studies of the RLWTF, LANL points to the fact that its discharges from the facility are already extremely minimal. Given the data that LANL has provided, it is questionable as to whether this facility should receive an NPDES permit or should be permitted as a RCRA hazardous waste processing facility. NMED in consultation with Region 6 of the EPA should make a determination regarding the correct regulatory fit, given the fact that there are minimal discharges and the facility has the capacity to be a "zero discharge" facility according to the applicant. Were the facility equipped with an emergency storage tank capable of holding a day of maximum capacity discharge plus necessary "freeboard", it would be able to operate without discharging under an NPDES permit.

The draft permit states:

> The discharge may contain water contaminants with concentrations above the standards of 20.6.2.3103 NMAC and may contain toxic pollutants as defined in 20.6.2.7 WW NMAC. Section III, page 8.

We fully support NMED having reserved, in the permit, the right to require a Discharge Permit Modification in the event NMED determines that the requirements of 20.6.2 NMAC are being or may be violated or that the standards of 20.6.2.3103 WW NMAC is present. *See id.* Additionally, the permit should reference and provide as an

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[1] Collins, K., Rife, J., Rae, S. and Hanson, S., "Los Alamos National Pollution Discharge Elimination System Permit Compliance and Outfall Reduction Strategy," LA-UR-07-8312 (December 20, 2007) ("Collins *et al.*"). See, for example, zero discharge project described at 3-6; description of declining output from facility at 7-16 to 7-17.

Moreover, this is not a new consideration for LANL. The Collins *et al.* report states that, "Zero liquid discharge of effluent was considered in 1977 with the proposed construction of 14 acres of evaporative ponds on Sigma Mesa." *Id.* at 7-17. Furthermore, a "1998 a report entitled *Elimination of Liquid Discharge to the Environment from the TA-50 Radioactive Liquid Waste Treatment Facility* (Moss et al., 1998) again recommended zero discharge of effluent from the TA-50 RLWTF. In 2003, a new working group was formed and completed a second report. These two reports provide the basis for the current Zero Liquid Discharge (ZLD) Project which is scheduled as a design/build project for FY08 or FY09." at 7-17. See also the Collins report recommendations which support the notion that the current facility should, by now, be a zero-discharge facility. Recommendations at 7-17 through 7-20; 8-3 to 8-4, and, at 8-4 to 8-5, see "Recommendations for FY08 Scope to Implement the NPDES Permit Compliance and Outfall Reduction Strategy."

Of course, were LANL to actually implement the recommendations of its scientists and technicians over the last thirty six (36) years, it would be seeking a RCRA permit for the hazardous waste treatment facility rather than relying upon discharging, as needed, its toxic, radioactive wastes into the human and natural environment.

appendix the information LANL provided to EPA concerning air emissions of tritium from the evaporation units. While we recognize that the permitting is being done under the Water Quality Act by the Ground Water Quality Bureau, LANL has long recognized that the use of the evaporation units triggers the need for air quality approvals from EPA and the state of New Mexico. [2]

III. COMMENTS ADDRESSED TO SPECIFIC PORTIONS OF THE PERMIT.

A. Specific Portions Of The Permit Need To Be Changed.

1. Section I. Acronyms, Definitions and Tables, at page 4. COMMENT: Reference to and the standard for Total Residual Chlorine (TRC) was removed **is not present in?** from the acronym list, definitions and Tables. TRC should have an effluent limit and be required for sampling, analysis and reporting under this permit.

2. Section II. Definitions, at page 5. COMMENT (1) The definition of 'calibration' should appear in the Definitions section of the permit; (2) "Practice of Engineering" does not appear in the definitions section--unless it is reinstated, the definition of 'Record Drawings' should include the statement that the official record of the actual as-built conditions of the completed construction "are certified and bear the seal and signature of a Professional Engineer licensed to practice engineering in the State of New Mexico."

3. Section II.BB. Definition of Total Polychlorinated Biphenyls (PCBs), at page 7. COMMENT: The EPA stormwater permit for LANL requires that the Permittees use Method 1668 Revision A, or the most current revisions of the Congener Method, for PCB analysis. *See* Part I.C, footnote (*4). This is also a requirement of the industrial surface water NPDES permits. For purposes of analytic consistency, NMED should require the use of Method 1668 Revision A for PCB analyses done under the draft RLWTF permit.

Additionally, the permit should be corrected to reference Method 1668C *Chlorinated*

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[2] *Id.* at 2-9 ("[E]missions from mechanical evaporators and evaporation ponds must be addressed when evaluating options for permit compliance and outfall reduction"); also at 5-1, LANL anticipated that NMED would impose requirements, under it ground water permitting of the evaporation facilities that are more comprehensive than the current permit requirements ("Evaporation basins or tanks may require Groundwater Discharge Permits that specify design items such as liner materials, lining requirements, monitoring, recordkeeping, operation and maintenance requirements, and performance standards") (emphasis added).

Biphenyl Congeners in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS in §IV.B.19.[3]

4. Section III. Introduction, at page 8. COMMENT: The first paragraph should include language that the permit is for operations at Los Alamos National Laboratory (LANL).

5. Section V.D. Authorization to Discharge, at page 10. COMMENT: (a) Influent Collection System conveyance lines should be double walled; (b) the type of gas used in the Mechanical Evaporator System should be disclosed in the permit; (c) the Solar Evaporative Tank System should not be a "unsealed subgrade concrete structure" rather is should be sealed, especially considering that the leak detection is a single rather than a double leak detection system.

6. Section VI.A.3(g) Submittal of Plans and Specifications, at page 13. COMMENT: The same concern regarding DOE Standard 1020-2012 applies here. The Standard requires that all facilities meet seismic qualification. Given that DOE requirement and that the terminus of the Guaje Mountain Fault is in the area of TA-50/TA-55, the permit should require that the RLWTF be in compliance with all federal regulations, including DOE seismic qualification under Standard 1020-2102.

7. Section VI.A.3(j). Submittal of Plans and Specifications, at page 13. COMMENT: This provision, at either j or k, should include requiring installation of a camera as part of the detecting the failure of either primary or secondary containment or the presence of a release.

8. Section VI.A.6. Signs, at page 14. COMMENT: *Honor Our Pueblo Existence* requested the provision of warning signs in Tewa in the NMED Hazardous Waste Permit for LANL. *See §2.5.1 of the Hazardous Water Permit.* In this permit, LANL and NMED should be required to contact Santa Clara Pueblo, as well as the other three Accord Pueblos, about what type of signs each Pueblo requires and put those requirements in the permit.

9. Section VI.A.8. Water Tightness Testing, at page 15. COMMENT: There is no human health and safety benefit in allowing an infiltration or infiltration rate of up to 50 gallons per mile per consecutive 24-hour period. No regulation allows such an excess amount of leakage and there is no lawful justification for doing so. The permit should be changed to disallow this level of leakage. Moreover, it is inconsistent with the permit requirements at Section 30, Water-Tightness, which require leak testing in every

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[3] Collins *et al.*, "Los Alamos National Pollution Discharge Elimination System Permit Compliance and Outfall Reduction Strategy," *id.*, acknowledged the need to use (and recommended) this methodology. *See* 7-20, 7-22.

piping segment rather than a calculation of the average rate of leakage. A maximum for leakage should be specified "as low as reasonably achievable" (ALARA) with some threshold that will be protective of human health.

10. Section VI.A.9. Settled Solids, at page 16. COMMENT: This section should specify where the settled solids will be measured. It is unclear whether measurements will be taken at the Solar Evaporative Tank (SET) System and/or the Mechanical Evaporator System (MES). The permit should explain the depth of the SETs in "Section V. Authorization to Discharge," at page 9.

11. Section VI.A.10.b. Facility Inspections, at page 17. COMMENT: The term for inspection (weekly, monthly) of "visual portions of all synthetic liners used to store or dispose of liquids or semi-liquids" should be stated in the permit. Moreover, as the terms of inspection are stated for other portions of the facility, it is inconsistent for the permit to fail to specify terms of inspection for all portions of the facility.

12. Table 1. Effluent Quality Limits for Discharges to Outfall 051, at page 19: COMMENT: Effluent limits for perchlorate are nearly three times as high as in the draft 2005 permit and nearly twice the current California standard. The limitations for perchlorate should be about one tenth of those in Table 1. Moreover, in 2006, LANL published a graph in a briefing paper written by the Nuclear Waste and Infrastructure Services Division, Radioactive Liquid Waste Group, "Radioactive Liquid Waste Treatment Facility, Los Alamos National Laboratory, TA-50" (May 17, 2006). The graph shows that, excepting a single spike in a three-month period, perchlorate, close to the end of 2004, had been reduced to near zero. Surely, in 2013, LANL should be able to reduce its perchlorate discharge to at least the California standard, if not to zero.

13. Table 1. Effluent Quality Limits for Discharges to Outfall 051, at page 19. COMMENT: The 2005 draft permit had a permit limit of .00077 mg/L for mercury. The current draft has a limit of .0022 mg/L for mercury. If anything the limit today should be more, not less stringent and protective of occupational and public health and safety than it was eight (8) years ago.

14. Table 1. Effluent Quality Limits for Discharges to Outfall 051, at page 19. COMMENT: The 2005 draft had a zinc effluent limit of 4.37 mg/L. Again, the current revised draft permit has a less protective, less stringent limit set at 10 mg/L. The current limitation should be more protective of occupational and public health and safety than that proposed eight (8) years ago. The limits set in the revised draft permit should be at least as protective as they were before, absent some scientific justification for setting less protective and stringent limits.

15. Table 1. Effluent Quality Limits for Discharges to Outfall 051, at page 20. COMMENT: The limit for "Radioactivity" is higher than parties to the draft

permit wanted in 2005. It is currently set at 30 pCi/L. That limit should be 15 pCi/L. Given the technological advances in remediation technologies since the 2005 draft permit, it is reasonable and achievable--and properly protective of public health and safety--to limit tritium emissions to 15 pCi/L in this permit as part of the radioactivity limits in this permit. The briefing paper cited above also contains a graph showing that LANL, between January 2004 and September 2004 had reduced the amount of radioactive material discharged to the environment to near zero. Surely, in 2013, it is not unreasonable for LANL to accept a limit of 15 pCi/L for Radioactivity.

16. Tables 1 and 2. Effluent Quality Limits for Discharges to Outfall 051 and Effluent Quality Limits for Discharges to the MES and SET, at pages 19-21.
COMMENT: In the 2005 draft permit there was a tritium limit of 20 nCi/L. There is no tritium limit in this current draft permit, despite the fact that Los Alamos National Security, LLC, ("LANS") stated that it was intending to achieve "zero discharge" for tritium. Again, both the goal of "zero discharge" and, in the event that goal is not achieved, a tritium limit of 20 nCi/L should be inserted into the permit in order to be adequately protective of occupational and public health and safety. Tritium evaporation capabilities at LANL have, theoretically, been enhanced as part of the plan to achieve a "zero discharge" RLWTF. For this purpose, LANL now has both a "synthetically lined Solar Evaporative Tank system (SET)" and the Mechanical Evaporator System (MES) at TA-52. Given the additional facility for tritium evaporation, there should be limits in this permit that are consistent with LANL's supplemental treatment equipment for tritium. There should also be a deadline in the permit for the Permittees to achieve "zero discharge" given that LANL has been working on this since the 1970s.[4]

17. Section VI.A.13. Effluent Limits: Outfall 051, at page 20.
COMMENT: There is no justification for the permit providing that "constituents that are subject to effective and enforceable limitations under NPDES Permit NM0028355 for discharges to Outfall 051, that are lower than the effluent limits under this Discharge Permit are exempt." The permit should be consistent with state and federal law in the level of protection of water quality and human health and safety. This requires using language in the permit that specifies the more protective standard (be it state or federal) as the one applying to any and all discharges.

18. Section VI.A.17. Installation of Flow Meters, at page 22.
COMMENT: Considering the public has been waiting for almost two decades for this permit and that LANL has been working on making the existing facility a zero discharge facility since 1977, CCNS requests that the Permittees be required to install the flow meters within 30 days of the effective date of the GWDP. It is outrageous to provide six additional months after the effectiveness date of the permit for the implementation of

[4] *Supra* note 1 (discussing the history of LANL studies recommending that the RLWTF be a "zero discharge" facility and indicating the capacity to achieve that objective).

flow metering within the RLWTF.

19. Section VI.A.18. Calibration of Flow Meters, at page 23. COMMENT: The calibration of flow meters should also be done within 30 days of the effective date of the permit as flow meter calibration is not very difficult to perform. Additionally, there is no engineering justification for a calibration rate of plus or minus 10% of actual flow when the standard is plus or minus 5%.

20. Section VI.B. 24.b. Waste Tracking, at page 26. COMMENT: Regardless of whatever lag time there may be between approval and conveyance of waste to TA-50, it is important to know when the waste stream is conveyed as well as when it was approved. The permit should be changed to clearly state when the waste stream is conveyed as well as when it was approved.

21. Section VI.B.25. Effluent Sampling, at page 26. COMMENT: The permit should require sampling for PCBs at Outfall 051, the MES and SET in the monthly and quarterly sampling events. *See* 20.6.2.3103 (A)(15) and 20.6.2.7.WW (39), NMAC (requirements for monitoring and limitations on PCBs in discharges). The type of discharge expected from the MES and SET should be specified so the reason for a quarterly sampling requirement is readily apparent. In addition, there should be a specification of the flow path for such discharges.

22. Section VI.C.29. Containment, at page 30. COMMENT: The language in the paragraph at the end of this section with respect to "long-term actions" to maintain the integrity of the secondary containment raises concerns. The nature, extent and limitations on what constitutes appropriate actions should be specified in the permit. The permit should require any proposal be noticed to the public for comment as well as the opportunity to request a public meeting, and that any proposal be posted promptly on LANL's Electronic Public Reading Room--not at the end of the process as the permit appears to allow.

23. Section VI.C.32. Damage to Structural Integrity, at page 33. COMMENT: This section should include a requirement for the Permittees to provide NMED with an oral 24-hour notice about any significant damage to the structural integrity of any unit or system.

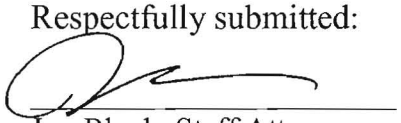
24. Section VI.D.41. Cessation of Operation of Specific Units, at page 40. COMMENT: The permit needs to include the workplan for stabilization of five units that are required to be closed within 60 days of the effective date of the permit.

25. Section VI.D.42. Stabilization of Individual Units and Systems, at page 40. COMMENT: This section should include the pipes that have been used to move waste from TA-50 to the TA-53 evaporation tanks or similar structures.

We plan to submit, as noted above, additional comments supplementing the above as part of our Comments and Request for Public Hearing on the RLWTF permit.

We thank you for your careful consideration of these comments and our request for a hearing on this permit.

Respectfully submitted:



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NEW MEXICO
ENVIRONMENTAL LAW CENTER

August 4, 2005

William C. Olson
Bureau Chief
Ground Water Bureau
New Mexico Environment Department
1190 St Francis Drive
Santa Fe, New Mexico

Hand delivered

Re: Application of the U.S. Department of Energy and the University of California for renewal of discharge permit DP-1132 for the Radioactive Liquid Waste Treatment Facility at Los Alamos National Laboratory

Dear Bill:

I write as counsel for Amigos Bravos to request a public hearing and to comment on the draft discharge permit DP-1132 issued by the Ground Water Bureau of the New Mexico Environment Department on April 11, 2005 and re-issued on June 10, 2005.

Introduction

The Ground Water Bureau ("the Bureau") of the New Mexico Environment Department ("NMED") indicated in its April 11, 2005 notice of issuance, and its June 10, 2005 notice of re-issuance, of the draft of discharge permit DP-1132 that it proposes to issue DP-1132 to the U.S. Department of Energy ("DOE") and the University of California ("the University") for the Los Alamos National Laboratory Radioactive Liquid Waste Treatment Facility at Technical Area 50 ("the Facility") within the Los Alamos National Laboratory ("LANL"). The June tenth re-issuance notice stated that public comments and requests for a public hearing must be submitted on or before August 4, 2005.

This request for a public hearing and these comments are submitted by Amigos Bravos, a non-profit community based organization that is concerned about the impacts of the Facility on ground and surface water in New Mexico. Amigos Bravos appreciates the effort by the Bureau to address the discharges from the Facility. Amigos Bravos also appreciates this opportunity to be involved in the Bureau's consideration of the issues presented by those discharges. This request for a public hearing and these comments are submitted pursuant to the New Mexico Water Quality Act and the New Mexico Water Quality Control Commission Regulations.

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Request for public hearing

Amigos Bravos' request for a public hearing should be granted for two reasons. First, there is significant public interest in this proposed discharge permit. Second, there are significant issues that must be addressed before the discharge permit is issued in final form.

The New Mexico Water Quality Act and its implementing regulations provide for public hearings.

The New Mexico Water Quality Act, NMSA 1978 §§ 74-6-1 *et seq* ("the Act") provides that the Water Quality Control Commission ("WQCC") shall adopt regulations providing for notice to the public of applications for permits under the Act. NMSA 1978 §74-6-5 F. That section also provides that no ruling on an application for a permit shall be made without opportunity for a public hearing at which all interested persons have the chance to present their views and arguments, and to cross examine witnesses provided by other parties. *Id.*

The Water Quality Control Commission Regulations ("the Regulations") adopted to implement these provisions indicate that the NMED shall conduct a public hearing or meeting if the Secretary determines that there is significant public interest. NMAC §20.6.2.4108.D. There is significant public interest in the proposed discharge permit that is the subject of this proceeding.

This request is made by the board of directors, the staff, and the members of Amigos Bravos, a community based non-profit organization. The mission of Amigos Bravos includes an emphasis on protection of the Rio Grande watershed, and Amigos Bravos has a particular interest in this proceeding. Moreover, Amigos Bravos' extensive membership includes many members who live down stream and down gradient from LANL and who are therefore at risk from contamination discharged by the Facility that is the subject of proposed discharge permit DP-1132.

Amigos Bravos' mission and strategic plan call for addressing contamination from LANL.

The mission of Amigos Bravos includes several specific goals. These are: 1) to return New Mexico's rivers and the Rio Grande watershed to drinkable quality wherever possible, and to contact quality everywhere else; 2) to see that natural flows are maintained and where those flows have been disrupted by human intervention, to see that they are

regulated to protect and reclaim the river ecosystem by approximating natural flows; and 3) to preserve and restore the native riparian and riverine biodiversity. Amigos Bravos supports the environmentally sound, sustainable traditional ways of life of indigenous cultures and holds that environmental justice and social justice go hand in hand.

Amigos Bravos' Board of Directors adopted the Amigos Bravos Strategic Plan in July 2003. That Strategic Plan identifies the use of state and federal regulatory processes to stop ground and surface pollution migrating from LANL facilities as a key component of Amigos Bravos' work, particularly the organization's work to protect and restore water quality and quantity in White Rock Canyon.

Amigos Bravos believes that state ground water discharge permits provide the public with a unique opportunity to work with the State, and the polluting facility, to develop the best possible protection for ground water in both the short term and after closeout of the facility. By preventing additional pollution from being released, and by requiring clean up of historic releases, the public's right to clean water will be protected. The proposed issuance of discharge permit DP-1132 to LANL provides Amigos Bravos with an opportunity to serve New Mexico's citizens by protecting the state's future drinking water resources while furthering its mission.

Amigos Bravos' extensive membership includes a substantial number of people who may be affected by contamination from the Facility.

Amigos Bravos' membership of more than 1,600 people reflects the geography of its constituency, with about 80 percent residing in-state. Within New Mexico, a substantial number of the members live in Los Alamos, Santa Fe, and Albuquerque. Because contaminants discharged by the Facility may reach ground water, the Amigos Bravos members who live in Los Alamos are at risk from contamination discharged by that Facility. Since discharges from that Facility also have the potential to reach the Rio Grande, Amigos Bravos members in Santa Fe and Albuquerque are at risk from contamination released by that Facility. There are therefore a substantial number of Amigos Bravos members who may be affected by discharges governed by proposed discharge permit DP-1132.

On the basis of the interests of Amigos Bravos' membership alone, there is significant public interest in the proposed discharge plan DP-1132. Moreover, Amigos Bravos is not the only organization that is requesting a public hearing concerning proposed discharge plan DP-1132. A similar request is being made by Concerned Citizens for Nuclear Safety, a non-profit organization based in Santa Fe that has a long standing interest in the operations of the LANL, and whose request is backed by that group's Board of Directors, Staff, and membership.

There is therefore significant public interest in the draft DP-1132, and the NMED Secretary should grant this and other requests for a public hearing.

Comments on the draft DP-1132.

These comments are divided into the following categories: comments on the impacts of discharges from the Facility; questions about the need to discharge from the Facility and the alternatives to discharging from the Facility; comments on effluent limits; information that is needed in order to evaluate the impacts of the discharges from the Facility; comments concerning the wastes that are taken into and processed in the Facility; joint and several liability among the permittees for obligations under the permit; comments and questions about the treatment and disposal of non-liquid wastes generated at the facility; comments on the monitoring measures called for by the draft discharge permit; comments concerning the provision of monitoring and other data to members of the public; comments on the proposed closure plan for the Facility; comments on the need for a financial assurance for the discharge permit; comments on the relationship of DP-1132 to the Compliance Order on Consent entered into between the NMED, the DOE, and the University on March 1, 2005 ("the Compliance Order"), and comments on the retention of records by the permittees.

These comments are not meant to address all issues that exist or may arise with respect to the proposed discharge permit. Amigos Bravos reserves the right to raise other issues in other contexts, including negotiations and a public hearing, concerning the proposed permit.

Discharges from the Facility have the potential to impact ground water and down gradient surface water.

The potential for contaminants from Technical Area 50, where the Facility is located, to reach the Rio Grande was documented by George Rice in *New Mexico's Right to Know: The Potential for Groundwater Contaminants from Los Alamos National Laboratory to Reach the Rio Grande*, Prepared for Concerned Citizens for Nuclear Safety, Second Technical Report, July 2004 ("the Rice Report"). As that report indicates, there are pathways by which the contaminants released from this and other LANL facilities, can travel through ground and surface water between LANL and the Rio Grande. Rice Report, 34-35.

The discharge permit should require that LANL evaluate alternatives to discharges from the Facility.

The Regulations provide that the NMED may require information that may be necessary to demonstrate that a discharge will not result in an exceedence of standards at any place where water may be withdrawn now or in the reasonably foreseeable future. NMAC §20.6.2.3106.C(7). Because contaminants discharged from the Facility may cause such an exceedence of standards in ground or surface water that is down gradient and down stream from the Facility, the proposed discharge plan should require LANL to evaluate whether discharges from the Facility are necessary.

Elimination or minimization of discharges from the Facility could be accomplished through advanced treatment technologies which could render any potential discharges free of contaminants and available for re-use by LANL. Even if an evaluation demonstrates that discharges are necessary, the discharge permit should mandate that LANL recycle water treated in the Facility to the maximum extent possible.

The discharge permit's effluent limits should be revised.

The effluent limit for gross alpha particle activity in the draft discharge permit is 30 pCi/L (draft discharge permit, Introduction), but that is twice the U.S. Environmental Protection Agency's drinking water standard of 15 pCi/L. The discharge permit's limit should be reduced to be consistent with that drinking water standard. In addition, the effluent limit for perchlorate is 4ug/L (*Id.*) even though LANL claims that the Facility has reduced perchlorate concentrations to less than 1 ug/L. The discharge permit should reflect the lower concentration that LANL has stated is being achieved. The discharge permit also should set limits on discharges of volatile organic compounds and semi-volatile organic compounds.

The Bureau needs more information before it can properly evaluate discharges from the Facility.

The Bureau does not have adequate information about the impact of past discharges from the Facility on surface and ground water in Mortandad Canyon and further down gradient to be able to determine accurately the effects that discharges from the Facility will have. Studies are needed to determine where discharges from the Facility travel and what their effect is on the existing contamination in the ground water and soil. For these and other reasons, DP-1132 should include flexibility that allows for appropriate modification of the permit as information becomes available, particularly through the investigations called for by the Compliance Order. Any modifications that are proposed should be considered in a process that includes public involvement. *See* NMAC §20.6.2.3108.A.

The Bureau also lacks necessary information about the wastes being treated at the Facility. For example, the Bureau should know whether it would be possible to separate waste that includes radionuclides from waste that does not prior to shipment or transfer of the waste to the Facility. The Bureau also should know whether waste containing radionuclides can be separated from waste that does not contain radionuclides prior to discharge of the waste from the Facility. In addition, the Bureau needs to know the chemistry of each of the effluent streams to be treated. This should include information on total and dissolved concentrations of all constituents regulated by the WQCC. It also should include information on the chemistry of waters that receive discharges from the Facility. If waters at other LANL technical areas receive discharges from the Facility, the Bureau should know the chemistry of those waters as well as their depth.

DP-1132 should set forth requirements concerning the wastes that are transported to the Facility and processed there.

It is appropriate to include in the draft permit the provision that restricts the facilities that may pump liquid waste to TA-50 through the Radioactive Liquid Waste Collection System (RLWCS) via double encased pipe or transport liquid waste to TA-50 by truck. The permit also should specify that any modification of this provision should require approval by the Bureau after a process involving input from the public.

The discharge permit should specify joint and several liability among the permittees.

The proposed discharge permit is addressed to DOE and the University, but it does not indicate which of those entities is responsible for what actions under the permit. In order to make clear that each of the permittees is responsible for everything called for by the permit, it should specify that the two parties are jointly and severally liable for all of the actions to be performed under the permit.

The discharge plan should address the nature, treatment, and disposal of non-liquid wastes that are generated at Facility.

In order to insure that non-liquid wastes that are generated at the Facility do not cause exceedences of standards elsewhere, the discharge permit should specify the treatment process at Technical Area 53 for evaporator distillate and reverse osmosis permeate that do not meet the criteria for discharge to Mortandad Canyon. The permit also should specify whether further treatment is required if these wastes do not meet the criteria for discharge at Technical Area 53, and should indicate where these wastes are treated and disposed.

In addition, the discharge permit should address solids removed from the primary clarifier and TUF unit, which are referred to in Operational Plan Condition No. 3, as well as the management of solids generated by treatment and proposed to be disposed of at Technical Area 54. The discharge permit also should cover containment of these wastes, whether there is a contingency plan for them, and what, if any, risk their storage and disposal pose to ground or surface water. The same considerations should be addressed for evaporator bottoms that are used in connection with Operation Plan Condition No. 3.

The discharge permit also should address these issues for the other wastes described in Operational Plan Condition No. 3. The discharge permit should include management plans and treatment for sludges, scale and other solids generated by treatment processes at Technical Area 50, such as clarifier underflow, filtration wastes, reverse osmosis concentrates, pipe scale, etc. These wastes are likely to include radionuclides, metals and organics removed from treated waste streams, and the discharge permit should provide for their management and disposal so that they do not cause ground water contamination.

The discharge plan should include additional provisions relating to monitoring and reporting.

The draft discharge permit's provisions on Monitoring, Reporting, and Other Requirements mandate monitoring of effluent quality for each effluent batch (Monitoring, Reporting, and Other Requirements, ¶13), but indicates that results must be reported only on a quarterly basis. The discharge permit should be changed to require that any exceedences that are found should be reported immediately.

The Monitoring, Reporting, and Other Requirements portion of the draft discharge permit also calls for monitoring at several specified wells. Monitoring, Reporting, and Other Requirements, ¶14. Two of those monitoring wells, MCOBT-4.4 and TW-8 are being replaced, however, and the discharge permit should require monitoring at the replacement wells. In addition, several new monitoring wells have been installed in Mortendad Canyon. The permit should require monitoring at those wells also.

The discharge plan should provide for making monitoring and other data available to members of the public in real time.

Several provisions of the draft discharge permit require monitoring and reporting to the NMED. *See, e.g.*, Monitoring, Reporting, and Other Requirements ¶¶9-14 and Contingency Plans ¶¶15-19. The discharge permit should mandate that the results of those and other monitoring and sampling procedures be made available to the members of the public at the time that they are submitted to the NMED. Such results can be made available

by electronic mail to members of the public who have requested ongoing information; for other members of the public, results could be posted on a web site.

The discharge plan should provide a more specific closure plan.

The Regulations specifically provide for requirement of closure plans as part of discharge permits, and list several specific items that should be addressed in those plans. NMAC §20.6.2.3107.A(11). Despite that, the proposed discharge permit's closure plan provides little in the way of details about closure and post-closure activities. Existing contamination in Mortendad Canyon has not been characterized adequately to develop a detailed closure plan that addresses remediation of existing ground water contamination and contaminated soils that could lead to further ground water contamination. For that reason, the discharge permit should include a closure plan that provides for alternative contingency plans to address contamination that is found.

Those alternative contingency plans should take into account that existing ground water contamination has the potential to affect ground water used for drinking water. Those plans also should take into account ground water management, including ground water pumping, treatment and discharge of treated water will most likely be necessary to protect state resources and public health. Because existing soils contamination has the potential to cause additional ground water contamination, those plans also should address remediation of soils, including excavation, treatment and/or location in a suitable repository.

Finally, a cost estimate should be provided based on the tasks included in the closure plan, and a corresponding financial assurance should be required in order to ensure that funds are available for the State of New Mexico to carry out those plans in the event that the permittees fail to carry out the necessary actions.

DP-1132 should require the posting of a financial assurance by LANL.

Because of the need for a closure plan, and because the discharges from the Facility may result in the need for remediation, DP-1132 should require the posting of a financial assurance to cover necessary costs in the event that the permittees are not able to pay for them. The Regulations specifically provide for requiring financial assurances (NMAC §20.6.2.3107.A[11]), and the potential costs involved in reclaiming and remediating contamination caused by the Facility are such that such a requirement is appropriate here. In accordance with financial assurance mechanisms requirements in other contexts, the financial assurance should be in the form of a trust account, a letter of credit, or an insurance policy, and must be payable to the State of New Mexico.

The Bureau should connect DP-1132 to the Compliance Order.

The Compliance Order is a comprehensive document calling for investigation of contamination at and around LANL facilities, including this Facility and Mortendad Canyon. Specifically, the Compliance Order calls for LANL to enhance its monitoring program in Mortandad Canyon and to provide NMED with a number of documents and reports regarding ground water in the canyon system. These data and reports may contain new information requiring action in order to protect ground water.

Therefore, in order for DP-1132 to control appropriately the discharge of water contaminants from LANL operations to ground and surface water, the Bureau should tie DP-1132 to the Compliance Order. In other words, the Bureau should include in DP-1132 provisions for taking action based on the results of the investigations mandated by the Compliance Order. DP-1132 also should provide for public involvement in decisions to be made on the basis of Compliance Order investigations results.

The discharge permit should call for the indefinite retention of records generated pursuant to the permit.

The draft discharge permit indicates that records generated pursuant to the permit shall be retained for a period of at least five years. Closure Plan ¶25. Because of the longevity of the contaminants that are in the wastes handled by the Facility, that period is not sufficient. The discharge permit should require that those records be retained indefinitely.

Conclusion

The draft discharge permit should be revised to include the additional requirements discussed above. It also should include provisions to insure that members of the public are kept informed about operations at the Facility.

We would appreciate your confirming that you have received this request for a public hearing and these comments. We also would appreciate hearing from you when the Secretary has determined whether a public hearing will be conducted.

Thank you for your cooperation.

Yours truly,

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