

**BEFORE THE ENVIRONMENTAL APPEALS BOARD
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C.**

In re:)
)
)

TEWA WOMEN UNITED,)
DR. MAUREEN MERRITT, and)
CONCERNED CITIZENS FOR)
NUCLEAR SAFETY)
)

Appeal No.

Docket No.)
)

PETITION FOR REVIEW

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INTRODUCTION

Pursuant to 40 C.F.R. § 70.8, Tewa Women United, Dr. Maureen Merritt, and Concerned Citizens for Nuclear Safety (“the Appellants”) appeal specific conditions of the New Mexico Environment Department (“the Department”) Title V Operating Permit, issued on February 27, 2015, to the U.S. Department of Energy, National Nuclear Security Administration (“the Permittees”) for operations at Los Alamos National Laboratory (“LANL”), Operating Permit P100-R2.

We begin by acknowledging the sacred place where the emissions are occurring. The Permittees are emitting, and have emitted for over 72 years, chemicals, including volatile organic compounds (“VOCs”), radionuclides and particulates into the air of the Sacred Jemez Mountains of the Pueblo Peoples. In the early 1940s the U.S. Government

told the Pueblo Peoples that the Pajarito Plateau (where LANL is situated) would be used for a short time and then it would be returned to them. This has not been the case. The Plateau has been used, and projected for use, by the U.S. Government and the nuclear weapons enterprise for at least the next 50 years. One hundred and twenty years is not a short amount of time.

Appellants contend that certain permit conditions are based on clearly erroneous findings of fact and conclusions of law. Specifically, Appellants challenge the following permit conditions:

1. Condition A113 "Other Provisions," Condition A700 "Regulated Sources – Beryllium Activities," and the Need for Additional Conditions for Verification Monitoring and Sampling at the SET and MES.
2. Lack of Cumulative Impacts Analysis.

FACTUAL AND STATUTORY BACKGROUND

1. The Appellants.

Tewa Women United 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 translated to "we are one."

TWU began 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 a safe space women created, 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. TWU was incorporated for educational, social and benevolent purposes, specifically for ending all forms of violence against Native women and girls, Mother Earth and to promote peace in New Mexico.

Maureen Merritt, DO is a board certified Family Practice physician and Occupational Medicine practitioner with 30 years experience, a retired Chief Medical Officer and Lieutenant Commander with the United States Public Health Service and Indian Health Service, and a recipient of two different State Governors' Awards for public health initiatives.

Dr. Merritt is founder of the local group New Mexico Alliance of Nuclear Worker Advocacy. She also serves on the advisory board of Cold War Patriots ("CWP"), a 501(c)(3) non-profit organization with over 20,000 members nationwide. CWP is dedicated to honoring and helping former uranium miners, millers, ore haulers and nuclear workers with health and safety issues related work under the DOE, Department of Labor and Department of Justice.

Dr. Merritt also created the New Mexico State Office of Nuclear Worker Advocacy, which is the first in the nation. In addition, she assists individual workers with difficult claims under the Energy Employees Occupational Illness Compensation Program Act. She speaks at town hall meetings nationwide on these and other nuclear industry issues.

Concerned Citizens for Nuclear Safety ("CCNS") formed in 1988 to address community concerns about the proposed transportation of nuclear waste from LANL to

the Waste Isolation Pilot Plant (“WIPP”) on St. Francis Drive in Santa Fe. CCNS is a 501(c)(3) non-profit organization, based in Santa Fe, New Mexico. *Our mission is to protect all living beings and the environment from radioactive and other hazardous materials now and in the future.*

For over 27 years, CCNS has actively participated in state and federal administrative proceedings about LANL. The proceedings have concerned air emissions, surface water discharges, ground water protection, and hazardous waste disposal storage and disposal.

Since the early 1990s, CCNS has actively participated in the Title V permitting proceedings, with a special focus on beryllium emissions.

In 1994, CCNS successfully sued the Permittees for violations at LANL of the National Emission Standards for Emissions of Radionuclides Other Than Radon From Department of Energy Facilities, 40 C.F.R. §61, Subpart H. CCNS v. DOE, (D.N.M. Civ. No. 94-1039-M). <http://www.nuclearactive.org/docs/CAAindex.html>

THRESHOLD PROCEDURAL REQUIREMENTS

Appellants satisfied the threshold requirements for filing a petition for review under 40 C.F.R. § 70.8(d), to wit:

1. Appellants participated in the permitting action and are adversely affected by it. Appellants have standing to appeal the Title V permit decision because we actively participated in the public comment period on the permit. 40 C.F.R. § 70.7(h). On January 18, 2015, Petitioners filed timely public comments in response to the Department’s “Public Notice for Air Quality Operating Permit for Los Alamos National

Laboratory of U.S. Department of Energy National Nuclear Security Administration.”

On February 2, 2015, Petitioners responded to the Department’s January 26, 2015 response to our comments. On February 24, 2015, Petitioners participated in a teleconference with the Department and a representative of the Permittees. On February 26, 2015, Petitioners submitted additional comments to the Department. *See* <http://www.nmenv.state.nm.us/aqb/permit/ApplicationsPermitswithPublicInterest.htm>

In our January 18, 2015 comments, we requested a public hearing. Our request was denied by the Department on February 27, 2015.

2. The issues raised by Appellants in our petition were raised during the public comment period and therefore were preserved for review. *Id.*

ISSUES PRESENTED FOR REVIEW

1. Environmental Justice; No Cumulative Impacts Analysis Has Been Done to Address Harms to Low-Income and Minority Populations Living Within a 50-mile radius of LANL. The New Mexico Health Department defines environmental justice as:

Environmental Justice - The right to a safe, healthy, productive, and sustainable environment for all, where "environment" is considered in its totality to include the ecological (biological), physical (natural and built), social, political, aesthetic, and economic environments. Environmental justice refers to the conditions in which such a right can be freely exercised, whereby individual and group identities, needs, and dignities are preserved, fulfilled, and respected in a way that provides for self-actualization and personal and community empowerment. This term acknowledges environmental "injustice" as the past and present state of affairs and expresses the socio-political objectives needed to address them.

Accessed March 31, 2015, <http://nmhealth.org/publication/view/help/309/>

The highest number of minority and low-income peoples of any of the DOE sites in the U.S reside within a 50-mile radius of LANL. Fifty-five percent of the total population of 153,518 living within the 50-mile (80-kilometer) radius of LANL are minority individuals, according to the 2000 census data. Hispanics comprise about 46 percent and Native Americans about six percent of the total population. *See*, Final Site-Wide Environmental Impact Statement for Continued Operation of Los Alamos National Laboratory, Los Alamos, New Mexico, DOE/EIS-0380, May 2008, p. 4-171.

Further, “As a percentage of the total resident population in 2000, New Mexico had the largest percentage minority population (55 percent) among the contiguous states and the second largest percentage minority population among all states (only Hawaii had a largest percentage minority population [77 percent]).” *Id.*

The 2000 census reports that approximately 44,278 individuals, or about 29 percent, identified as living below the federal poverty threshold of \$17,029 for a family of four. *Id.*, p. 4-174. In 1999, the median household income for New Mexico was \$34,133. *Id.* Residents of Los Alamos County had the highest median income within New Mexico at \$78,993. I

See, Fig. 4-33 on p. 4-173 and Fig. 4-34 on p. 4-175 at <http://energy.gov/sites/prod/files/EIS-0380-FEIS-01-2008.pdf>

The Peoples living downwind and downstream of LANL have borne the cumulative burden of over 70 years of emissions of chemicals, particulates and radionuclides into the air. The pollutants have been transported throughout the watershed – they have been deposited on the soil, been transported by water, and re-

suspended in the winds. No cumulative impacts analysis has been done to address harm to minority and low-income populations from LANL air emissions.

2. Verification of Insignificant Activity 1.a and 1.b status.

A. Section A113 "Other Provisions." The Title V Permit Should Explicitly Require Continuous Monitoring at the Soil Vapor Extraction System at Technical Area 54 (TA-54) Material Disposal Area L (MDA L).

Because of Appellants' concerns in public comments and during discussions with the Department and Permittees about Volatile Organic Compound ("VOC") emissions, including 1.1.1-trichloroethane ("TCA"), from the Soil Vapor Extraction System (SVE) at Technical Area 54 ("TA-54"), Material Disposal Area L, the Title V permit now requires the Permittees to conduct monitoring and calculate emissions. EPA has determined that TCA is a possible carcinogen. It does have liver and kidney toxicity that can lead to organ failure via acute or chronic exposure over time. *See*, Appellants' February 2, 2015 comments to the Department, pp. 3-6.

<http://www.nmenv.state.nm.us/aqb/permit/ApplicationsPermitswithPublicInterest.htm>

The Department previously determined that the SVE emissions were "insignificant." The Appellants raised concerns and provided additional information in our comments that the Permittees needed to demonstrate that the emissions are in fact "insignificant." *Id.* As a result, the Department has required monitoring. Below is the permit language, which Appellants believe would serve as a model for our other requests for verification requirements in the permit, with one requested addition:

A113 Other Provisions - (20.2.70.302.G.3 NMAC)

- A. To verify Insignificant Activity 1.a and 1.b status of the TA-54 MDA L Soil Vapor Extraction System (SVE), the Permittees shall perform the following actions.
- (1) At least once every 3 months, the permittee shall calculate and record the tons of VOC and HAP emissions from both SVE units (east and west) using data collected from the SVE stack monitoring system and periodic sampling of the SVE stack gas. The record shall include both measured individual HAPs and total HAPs. These calculations and records shall begin upon startup of the SVE system and shall continue for a period of no less than 12-months to determine the actual ton per year emissions.
 - (2) The permittee shall report the available tons of HAPs (individual and total) and total VOC emissions data in the Semi-Annual reports required in Condition A109.A.
 - (3) Within 45 days of collecting 12 months of emissions data, the permittee shall submit the final ton per year VOC and HAPs emissions, the calculations, and the supporting data to AQB's Permit Program Manager that verifies the Insignificant Activity status of TA-54 MDA L SVE. This submittal shall also cite the Title V Insignificant activity number that applies to the SVE units. Within 30 days of the receipt of the submittal, the AQB will complete a review of the information and respond to the permittee in writing. Once the AQB provides a written response of this Insignificant source verification, the monitoring, calculations, and reporting of the SVE system emissions no longer applies.

Section A113 "Other Provisions" (20.2.70.302.G.3 NMAC).

In order to definitively verify the emissions, Appellants believe that the monitoring must be continuous. We suggest that the word "continuous" be inserted in A.(1) above - "using data collected **continuously** from the SVE stack monitoring system and **continuous** sampling of the SVE stack gas."

B. Section A113 "Other Provisions." The Title V Permit Should Require Activated Carbon Filtration on the SVE at TA-54.

In 2006, the Permittees conducted a SVE pilot test at Material Disposal Area L at TA-54. At that time an activated carbon filter was installed to capture the emissions.

The Title V permit should require activated carbon filtration of the emissions. *See* Appellants' February 2, 2015 comments, pp. 3 – 6.

<http://www.nmenv.state.nm.us/aqb/permit/ApplicationsPermitswithPublicInterest.htm>

C. Permit Condition A707 “Other – Beryllium Activities. The Title V Permit Should Require Continuous Monitoring of Previously Permitted Beryllium Facilities and/or Beryllium Operations Deemed “Insignificant” Sources.

Appellants raised their concerns in public comments and in discussions with the Department that all beryllium sources are not being monitored. *See*, Permit Condition A707 “Other – Beryllium Activities.” The permit requires monitoring at only four sites. For people who are sensitive to beryllium, one exposure can lead them onto the path of contracting chronic beryllium disease, or berylliosis. Appellants are concerned that beryllium is leaving LANL and exposing the public.

Appellant Dr. Merritt summarizes her comments about beryllium (Be) exposure here. *See also* Petitioners' January 18, 2015 comments, pp. 5 – 7, and February 2, 2015 comments, pp. 6 - 7. *Id.*

Beryllium (Be) exposure IS a serious occupational and public health issue. For example, an initial health screening in 1998 by the DOE of 23,000 former workers for Be has revealed an incidence of 3-4% beryllium sensitivity (BeS), and about 1% incidence of chronic beryllium disease (CBD) at the time of screening. Time exposed, route (inhaled vs. skin) and intensity of exposure are just part of the risk picture. There is a genetic

component that can increase likelihood of contracting berylliosis, a chronic and progressive, irreversible respiratory illness that can lead to cancer and death.

An additional example, a Be+ machinist has a much higher incidence of conversion annually from BeS to CBD (30% or greater). For scientists and engineers and the like, the incidence of conversion is about 10%.

From current scientific research it is learned that anyone who is sensitized (BeS) will on average convert to CBD at a rate of about 6-8% a year. There are some who do not go on to succumb to CBD, but many do.

Once a worker tests positive by blood beryllium lymphocyte proliferation test (BeLPT), then medical centers such as National Jewish Medical Center in Denver (nationally recognized leaders on Be disease), who partners with DOE and the Department of Labor (DOL), will use their clinical protocols on Beryllium to do more invasive testing, such as CT Scans, bronchoscopy, and/or lung lavage and biopsy, to look for classic pulmonary signs of CBD.

Monitoring is typically done about every two years, more frequently once a person acquires the disease. It is not a benign process and in fact, is often deadly.

Another side note: Of 16 nuclear weapons facilities around the country listed on DOE's web site that are part of the free Beryllium worker screening program since 1998 to present, LANL was not among them. LANL did not begin routine Be screening for their workers until 2000.

The old 1999 Occupational Safety and Health Administration ("OSHA") standards for "acceptable" Be exposure in the workplace was a permissible exposure

limits (“PEL”) no greater than 2 mcg/m³ (micrograms per cubic meter) as a time weighted average (“TWA”) over an 8 hour period. The EPA regulations limit exposure to no greater than 0.01 mcg/m³ released into the air over a 30-day period (a miniscule amount). The ACGIH (Industrial Hygienists Association) recommends no more than 0.02 mcg/m³ per 8 hour TWA. That is two orders of magnitude smaller than OSHA’s PEL.

In light of the efforts of OSHA to revise the standards downward to those recommended by the ACGIH, we find the permit limits for beryllium to be excessive and increases the health risks to the public. Permit Table 702.A allows emissions of beryllium particulate matter released into the environment. They are in units of grams per hour or 24 hour. The OSHA and EPA units are for an exposure, at a volume, over a period of time. It is confusing for the public. The permit should include a conversion table for both sets of units.

Further, the permitted Beryllium Technology Facility at TA-3-141 is allowed to use 10,000 pounds of beryllium per calendar year and process 1,000 pounds per day. *See* A707C “Other – Beryllium Activities – Recordkeeping Requirements. Again, this amount of beryllium in one place is excessive and increases the public health risks.

The National Jewish Medical Center of Denver, as well as other medical experts, acknowledge there IS NO safe level of Be exposure. *See*, <http://www.atsdr.cdc.gov> for toxfacts on Beryllium. Also in the past year or so, the National Institute for Occupational Safety and Health (NIOSH) has only recently begun publishing newsletters on the topic.

General awareness of Be causing some health problems has been known for decades. But refined knowledge of the beryllium exposure/disease process is not that old and is evolving; only in the last ~ 10 years has it been on the federal government's front burner. This includes DOE.

Monitoring of all facilities that have used beryllium must be a requirement of the permit. *See*, Appellants' Petition to the New Mexico Environmental Improvement Board, pp. 9 - 11 for a list of beryllium facilities that have been covered by Title V permits. Section A700 "Regulated Sources - Beryllium Activities" should require **continuous** monitoring and sampling requirements similar to that required for the TA-54 SVE in order to verify Insignificant Activity 1.a and 1.b status.

D. New Conditions in Title V Permit. Continuous Monitoring of Emissions from the Solar Evaporative Tanks ('SET') at TA-52 and Mechanical Evaporative System ('MES') at TA-50.

Similarly, emissions from the Solar Evaporative Tanks ('SET') at TA-52 and the Mechanical Evaporative System ('MES') at TA-50 have been determined by the Department to be "insignificant" activities.

On September 20, 2010, the Department determined that no permit was required ("NPR") for the MES, or TA-50 Thermal Evaporation Unit. Permit No. 2195U. *See*, Statement of Basis - Narrative, Title V Permit, Section 5, "History," pp. 3 - 9.

The MES is described in an October 16, 2006 Administrative Review - NOE of Permit No. 2195R-27 as: "Added six, fifty thousand gallon wastewater storage tanks. These tanks store wastewater contaminated with radionuclides and potentially volatile

organic compounds prior to treatment by the existing wastewater facility. Request received on Aug. 31, 2006.”

On June 20, 2014 the Department determined NPR for the TA-52 SET. Permit No. 2195X. Id., p. 4. We are concerned that the SET will use nozzles to spray the tritium-contaminated water onto the SET. We attached Engineering Drawing 63 of the TA-52 Spray System for Evaporative Tank with 100 Spray Nozzles

Similar to the requirements for monitoring the SVE at MDA L, Appellants respectfully request that **continuous** monitoring and sampling of emissions from the MES and the SET be permit requirements in order to verify that the emissions are, in fact, Insignificant Activity under 1.a and 1.b.

E. The Title V Permit Should Require Permittees to Provide Petitioners with Reports to the Department.

The Title V permit should require the Permittees to provide the Appellants’ with electronic copies of all reports submitted to the Department under the proposed continuous monitoring and sampling provisions for the SVE, beryllium facilities and sources, SET and MES. In the alternative, the Title V permit could require the Permittees to post the documents in its Electronic Public Reading Room.

<http://epr.lanl.gov/oppie/service>

ARGUMENT

The environmental justice and insignificant activity issues presented are of first impression to the EAB.

Appellants raised environmental justice concerns in our January 18, 2015, February 2, 2015 and February 27, 2015 comments to the Department. On February 26, 2015, the Department responded by saying:

Reviewing each [no permit required] NPR request with an environmental justice lens would not change the Title V permit requirements for the equipment since the [New Mexico Executive Order] EO 2005-06 does not provide the Department with additional regulatory authority over and above what is allowed or required by the Title V regulation at 20.2.70 NMAC. Id.

Given that the largest majority minority population in the contiguous U.S. resides within the 50-mile radius of LANL, another review of the environmental justice issues should be required.

Appellants raised issues about the Insignificant Activities determinations made by the Department about the Permittees' emission sources and provided additional information about the emissions. In the case for the Soil Vapor Extraction System, the Department required the Permittees to verify the Insignificant Source by requiring sampling and monitoring for a one-year period in the renewed Title V permit.

For other Insignificant Activities determinations for beryllium facilities and operations, the SET, and the MES, the same requirements for additional sampling and monitoring for a one-year period should be included in the Title V permit. Permittees should be required to verify that their emissions are, in fact, insignificant activities.

CONCLUSION

Appellants Tewa Women United, Dr. Maureen Merritt, and Concerned Citizens for Nuclear Safety respectfully request that the Environmental Appeals Board order the New Mexico Environment Department to:

1. require a cumulative analysis of the impacts of emissions to the minority and low-income populations residing within a 50-mile radius of Los Alamos National Laboratory, and
2. require the Department of Energy/National Nuclear Security Administration to verify, through continuous monitoring and sampling, that the insignificant sources at the Solar Evaporative Tanks, Mechanical Evaporative System, Soil Vapor Extraction System and emissions from facilities and operations that have used or are using beryllium, are, in fact, insignificant sources; and
3. require Permittees to provide copies of the reports to Appellants, or in the alternative, to post them to the LANL Electronic Public Reading Room.

STATEMENT OF COMPLIANCE WITH WORD LIMITATION

Appellants state that our Petition for Review complies with the word and page limitations of 40 C.F.R. § 124.19(d).

LIST OF ATTACHMENTS

1. Figure 4-33, "Minority Population - Block Groups with More Than 50 Percent Minority Population within a 50-Mile (80-kilometer) Radius of Los Alamos National Laboratory," LANL Final SWEIS, p. 4-173.
2. "Figure 4-34, "Low-Income Population - Block Groups with More Than 18 Percent of the Population Living Below the Federal Poverty Threshold within a 50-Mile (80-kilometer) Radius of Los Alamos National Laboratory," LANL Final SWEIS, p. 4-175.
3. Appellants' Petition to the New Mexico Environmental Improvement Board, dated April 1, 2015.
4. Engineering Drawing 63 of the TA-52 Spray System for Evaporative Tank with 100 Spray Nozzles

Respectfully submitted,

For Appellants

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Date: April 2, 2015

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing Petition for Review in the matter of NMED Title V Permit No. P100-R2 for LANL was served by electronic mail to the New Mexico Environment Department on this 2nd day of April, 2015.

For Appellants

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Date: April 2, 2015