



concerned citizens
for nuclear safety

107 Cienega St.
Santa Fe, NM 87501
505-986-1973 Tel
505-986-0997 Fax
ccns@nuclearactive.org
www.nuclearactive.org

March 31, 2003

BY FAX TO (202) 514-8865

Eileen T. McDonough
Environmental Defense Section
U.S. Department of Justice
601 D Street, N.W.
Washington, DC 20004

Re: CCNS v. DOE
Case No. 94-1039M/JP (D.N.M.)

Dear Ms. McDonough:

Thank you for your letter of March 4, 2003 in response to the various voice mail messages that you and I have exchanged regarding the above-referenced case and the issues raised below. Concerned Citizens for Nuclear Safety (CCNS) believes that the Department of Energy (DOE) is in substantive breach of its compliance obligations at Los Alamos National Laboratory (LANL) as required by the Clean Air Act National Emissions Standards for Hazardous Air Pollutants (NESHAPs). 40 CFR §§61.90 – 61.97 (“Subpart H”).

Specifically, CCNS believes that Subpart H requires DOE and LANL to have a protocol in place for making periodic confirmatory measurements for low emission sources with appropriate quality assurance procedures and sufficient documentation for an independent auditor to verify compliance. 40 CFR §61.93(b)(4)(i). During the third compliance audit of LANL’s air emissions for 2001, conducted under the CCNS v. DOE Consent Decree, CCNS and its audit monitors from the Institute for Energy and Environmental Research (IEER) found substantive deficiencies. DOE and LANL lack the required periodic confirmatory measurement protocol, quality assurance procedures, and sufficient documentation for auditing purposes, and are not making actual measurements.¹ The Independent Technical Audit Team (ITAT)

¹ Dr. Arjun Makhijani and Bernd Franke, *Report of the Monitoring Team of the Institute for Energy and Environmental Research on the Independent Audit of Los Alamos National Laboratory for Compliance with the Clean Air Act, 40 CFR 61, Subpart H in 2001 to Concerned Citizens for Nuclear Safety*, December 18, 2002 (hereinafter “IEER Final Report”), pp. 6-14.

did not find these problems because it audited LANL's compliance in accordance with the terminated Federal Facilities Compliance Agreement (FFCA) between the U.S. Environmental Protection Agency (EPA) and DOE and not the applicable Subpart H regulations.

IEER also found three other substantive technical deficiencies involving detection of plutonium-238 particles in stack and ambient air sampling,² the need for continuous air monitoring of emissions from the proposed Technical Area-54 waste characterization activities,³ and uncertainties associated with siting AIRNET stations.⁴

The CCNS v. DOE Consent Decree provides for Resolution of Disputes through an informal process, which shall not exceed 10 working days, before seeking Court resolution. Consent Decree §VII. Therefore, pursuant to the Consent Decree, CCNS, as plaintiff and disputing party, submits the following statement to defendant DOE in order to begin the informal Dispute Resolution process.

NATURE OF DISPUTE

CCNS believes that DOE is out of compliance with Subpart H at LANL, the 1994 and 1997 Memorandums of Understanding between EPA and DOE clarifying the Subpart H requirements, DOE Orders, and LANL's Quality Assurance Project Plan (QAPP). CCNS also believes that the ITAT audited LANL's 2001 compliance in accordance with the terminated FFCA between EPA and DOE and not the Subpart H regulations.

1. Periodic Confirmatory Measurements - Subpart H Regulation. 40 CFR §61.93(b)(4)(i) states:

Radionuclide emission measurements in conformance with the requirements of paragraph (b) of this section shall be made at all release points which have a potential to discharge radionuclides into the air in quantities which could cause an effective dose equivalent in excess of 1% of the standard. All radionuclides which could contribute greater than 10% of the potential effective dose equivalent for a release point shall be measured. With prior EPA approval, DOE may determine these emissions through alternative procedures. **For other release points which have a potential to release radionuclides into the air, periodic confirmatory measurements shall be made to verify the low emissions.** (Emphasis added.)

² Id., pp. 16-20.

³ Id., p. 15.

⁴ Id., p. 20.

The third audit process revealed that DOE and LANL do not have the necessary protocols in place, with the appropriate quality assurance procedures, to conduct periodic confirmatory measurements in order to verify low emissions at the hundreds of laboratories at LANL and lack sufficient documentation for an independent auditor to verify compliance as required by Subpart H.

2. Memorandums of Understanding Between EPA and DOE. In order to clarify the requirements of the NESHAPs found in 40 CFR 61, including Subpart H, EPA and DOE entered into a 1994 Memorandum of Understanding (MOU)⁵, which was later updated in 1997.⁶ The applicable paragraph 1b, which requires periodic confirmatory measurements for low emission sources, is identical in both the 1994 and 1997 MOUs. The MOUs state:

The protocol for periodic confirmatory measurements which is required by 40 CFR Section 61.93(b)(4) is not specified in the regulations. EPA and DOE recognize that some DOE facilities have large numbers of minor release points that have similar emissions and controls. Therefore, confirmatory measurements of these types of releases would result in a large number of redundant measurements. **Development of periodic confirmatory measurement programs is the responsibility of the facility.** For each category of release points that the facility classifies as minor because uncontrolled emissions will not exceed 1% of the standard, periodic confirmatory measurements should be designed to confirm that individual release points remain properly categorized. The facility owner or operator should use best professional judgement, knowledge of the radionuclides and quantities being used in plant operations, and the potential for their release to determine when representative measurements should be made and/or engineering calculations should be utilized. **A protocol for periodic confirmatory measurements for each DOE facility must be provided by DOE to the appropriate EPA regional office.** (Emphasis added.)⁷

The MOUs require periodic confirmatory measurements for low emission sources. LANL has hundreds of laboratories in which a variety of experiments are conducted with many different types of radionuclides. CCNS understands that DOE and LANL have not provided the required protocol to EPA Region 6 and that they are not conducting the required measurements and lack a written protocol for performing such measurements, the required quality assurance and necessary documentation for auditing purposes. CCNS and IEER also

⁵ *Memorandum of Understanding Between the U.S. Environment Protection Agency (EPA) and the U.S. Department of Energy (DOE) Concerning EPA's Clean Air Act Radionuclide Emission Regulation – ACTION MEMORANDUM*, September 26, 1994 (hereinafter "1994 MOU").

⁶ *Memorandum of Understanding Between the U.S. Environment Protection Agency and the U.S. Department of Energy concerning the Clean Air Act Emission Standards for Radionuclides, 40 CFR 61, Including Subparts H, I, Q and T*, last Updated: April 17, 1997 (hereinafter "1997 MOU"). <http://es.epa.gov/oeca/ore/aed/comp/bcomp/b25.html>.

⁷ *Id.*, §1b. 1994 MOU, §1b.

understand that EPA and DOE are involved in a process that will update the MOUs.

Furthermore, with respect to the quality assurance requirements associated with Subpart H compliance, §6 of the MOUs state: "In fulfilling the requirements of Subpart H, DOE may use Appendixes D and E of 40 CFR Part 61."⁸ Appendix D to Part 61 is entitled, "Methods for Estimating Radionuclide Emissions" and references an EPA guidance document.⁹ The guidance is an acceptable 'other procedure' relative to Section 61.93(a) of Subpart H and sets forth the recordkeeping requirements for the required annual emissions report to EPA. The EPA Guide states:

The owner or operator of any facility subject to the [Subpart H] standard must maintain records documenting ... procedures used to determine compliance. In all cases, the documentation should be sufficient to allow an independent auditor to verify whether the facility complies with the standard....¹⁰

During the third audit, CCNS and IEER found that the data provided by the many users of small quantities of radionuclides at LANL to the Meteorology and Air Quality Group (MAQ) was not quality assured.¹¹ We also found that the third compliance audit focused on the MAQ and not the entire contiguous LANL facility. 40 CFR §61.91(b).

CCNS believes that DOE and LANL are out of compliance with Subpart H because they lack a periodic confirmatory measurement protocol with the requisite quality assurance and sufficient documentation for auditing purposes, and are not making actual measurements of low emission sources.

3. Terminated Federal Facilities Compliance Agreement (FFCA). In the early 1990s EPA issued two Notices of Noncompliance to DOE for Clean Air Act violations at LANL. EPA and DOE, Los Alamos Area Office (LAAO), entered into a 1996 Rad-NESHAP Federal Facilities Compliance Agreement (FFCA) in order to resolve noncompliance issues.¹² A Compliance Plan was attached as Appendix A, which provided some exemptions from the periodic confirmatory measurement requirements.¹³

⁸ *Id.*, §6.

⁹ *A Guide for Determining Compliance with the Clean Air Act Standards for Radionuclides Emissions from NRC-Licensed and Non-DOE Federal Facilities*, EPA 520/1-89-002, January 1989 (hereinafter "EPA Guide").

¹⁰ *Id.*, p. 4-4.

¹¹ IEER Final Report, pp. 6, 9, C-4.

¹² In the Matter of: Los Alamos National Laboratory, Los Alamos, New Mexico. Respondent: United States Department of Energy, Federal Facilities Compliance Agreement, Docket Nos. 91-NM-C112-002, 92-NM-C112-001, June 13, 1996 (hereinafter "FFCA").

¹³ FFCA, Compliance Plan §2.1.2.6.

The FFCA was an issue in the CCNS v. DOE litigation and throughout the audit process. Specifically during the third audit, CCNS and IEER requested that the ITAT review the status of the FFCA, which was not done.

On several occasions, CCNS requested copies of all documents related to the FFCA from Steve Fong, DOE LAAO. Finally, on October 24, 2002, after the release of the ITAT's final third audit report, Mr. Fong faxed copies of documents he "dug up out of [his] files regarding FFCA milestone completion and more importantly our discussion about FFCA technical methods and (AIRNET) EPA-approved methodology."¹⁴

However, it was only after the release of the ITAT's final third audit report that CCNS learned through a Freedom of Information Act (FOIA) request to EPA Region 6 that the parties to the FFCA had terminated the Agreement in December 1999.¹⁵ The EPA documents included DOE's November 23, 1999 letter to EPA requesting that the FFCA be terminated¹⁶ and EPA's December 17, 1999 response terminating the FFCA. DOE did not include the termination letter in its submittal to CCNS.

CCNS believes that the ITAT audited LANL's 2001 compliance with Subpart H in accordance with the terminated FFCA. DOE and LANL did not correct the ITAT during the audit process. Despite questioning by CCNS and IEER, no party to the audit was forthcoming with the correct information on the status of the FFCA.

Furthermore, the ITAT's October 2002 draft final report referenced the terminated FFCA over 40 times.¹⁷ Many of the references state that the FFCA did provide guidance for the methodology that LANL should use to implement their Subpart H compliance programs, the authority to use alternative methodologies to demonstrate compliance, and directions for achieving compliance.¹⁸ For example, the final third audit report of the ITAT states:

¹⁴ Steve Fong, DOE, Office of Los Alamos Site Operations, Office of Project Management and Environmental Restoration, October 24, 2002 fax transmittal cover sheet to Joni Arends, CCNS.

¹⁵ Carl E. Edlund, P.E., Director, Multimedia Planning and Permitting Division, U.S. EPA Region 6, December 17, 1999 letter to David Gurule, Area Manager, Los Alamos Area Office. "This letter is to terminate the [Federal Facilities Compliance] Agreement." IEER Final Report, Appendix B.

¹⁶ David Gurule, P.E., Area Manager, Los Alamos Area Office, Department of Energy, November 23, 1999 letter to Robert E. Hanneschlager, P.E., Acting Director, Multimedia Planning and Permitting Division, U.S. EPA Region 6.

¹⁷ Risk Assessment Corporation, *Independent Technical Audit of Los Alamos National Laboratory for Compliance with the Clean Air Act, 40 CFR 61, Subpart H in 2001*, Final Report, DOJ File Number: 90-5-1749A, RAC Report No. 6-DOJ-LANL Audit-2002-FINAL, Neeses, South Carolina, October 2002 (hereinafter "RAC Final Report").

¹⁸ Id., p. 6.

[T]he FFCA is an important part of the compliance process. Regulatory guidance is very limited for certain release scenarios that are important at LANL. LANL needed a framework for assessing the environmental impacts of releases for which compliance procedures either did not exist or were unclear. The FFCA provides this framework.¹⁹

Yet DOE and LANL, in their review of the draft final report, omitted to reveal the fact that the parties to the FFCA had terminated the Agreement and that the exemption from periodic confirmatory measurements no longer applied. Therefore, CCNS believes that the third audit is incomplete and that the ITAT did not verify whether LANL was in full compliance with Subpart H as required by the Consent Decree, §4.1.

In addition, during the second audit, which covered LANL's emissions for 1999, the fact that the parties were planning to terminate the FFCA was not mentioned by any of the parties.

4. LANL's Quality Assurance Project Plan (QAPP). On April 2, 1996, the Court granted partial summary judgment to Plaintiffs based upon DOE's admissions that, among other things, the associated quality assurance (QA) programs were not in compliance with Subpart H. The Consent Decree provides that the scope of the audits may include "examination of the content and implementation of the quality assurance programs." Consent Decree §4.6(c).

Throughout the audit process, CCNS and IEER requested that the ITAT hire a quality assurance specialist to audit LANL's quality assurance programs as required by Subpart H. The ITAT did not do this despite the request of CCNS, IEER, Chris Mechels and Joe Gutierrez.

As part of an emission estimation process, DOE and LANL developed the Radioactive Materials Usage Survey that contains the types and amounts of the various radionuclides used at LANL. However, during the third audit CCNS and IEER pointed to the lack of quality assurance of the radionuclide usage data supplied by the facilities to the MAQ.²⁰ IEER also raised concerns about the lack of adequate technical expertise in the MAQ for assessing the accuracy and quality of the data supplied by the facilities.²¹

DOE and LANL also created an emission tier system to characterize emission sources. Low emission sites, of which there are hundreds, have been categorized by MAQ as Tier III²² or Tier IV²³ emission sources.

¹⁹ *Id.*, p. 7.

²⁰ IEER Final Report, p. 3.

²¹ *Id.*, p. 6.

²² "**Tier III** – Any source that does NOT have the potential to contribute greater than 0.1 mrem/yr but that does have the potential to contribute greater than 0.001 mrem/yr according to the last usage survey. Any source meeting this criterion will be evaluated annually to

The tier system is found in the Quality Assurance Project Plan (QAPP), which “ensures and demonstrates LANL’s institutional compliance with 40 CFR 61, Subpart H; the Rad-NESHAP Federal Facility Compliance Agreement (FFCA); and DOE Order 414.1A.”²⁴ The definitions for both the Tier III and IV emission sources do not require actual periodic confirmatory measurements. However, both refer to QAPP §5.2, which requires that periodic confirmatory measurements be made. Section 5.2 Point Source Evaluation – Requirement states:²⁵

As stated in 40 CFR 61.93(b)(4)(i) and (ii), point sources that do not have the potential to contribute greater than 0.1 mrem/yr to an off-site receptor are not required to be monitored. **However, their low emissions must be confirmed periodically.** Point sources that do have the potential to contribute greater than 0.1 mrem/yr to any off-site receptor must be continuously monitored. (Emphasis added.)²⁶

The regulations and MOUs clearly state that periodic confirmatory measurements are required for low emission sources. LANL states in its QAPP that periodic confirmatory measurements are required. Yet, there is no written protocol in place for making periodic confirmatory measurements with the required quality assurance procedures and no actual measurements have been made. Therefore, CCNS believes LANL is in substantive breach of Subpart H.

The terminated FFCA also provided a basis for many of the quality assurance policies and procedures for LANL’s NESHAP compliance program. Even in the 2001 revision of the QAPP, the terminated FFCA agreement served as the sole or supporting driver for the quality program,²⁷ policy,²⁸ requirements,²⁹ and

confirm and verify that emissions remain low. Further, the information presented in the annual usage survey (primary source of documentation) used to confirm and verify these low emissions will be traceable to a secondary source of documentation (e.g., monitoring data, database, logbook, etc.). Where certain radionuclides or operations contribute the majority (e.g., >90%) of PEDE, all other radionuclides or operations need only meet the Tier IV record-keeping requirements. See section 5.2 Point Source Evaluations.” §5 of the Quality Assurance Project Plan for the Rad-NESHAP Compliance Project, ESH-17-RN, R2, October 4, 2001 (“hereinafter QAPP”), p. 19 of 130.

²³ “**Tier IV** – Any source that does NOT have the potential to contribute greater than 0.001 mrem/yr to any member of the public according to the last usage survey. Any source meeting this criterion will be evaluated at least every two years to confirm and verify that emissions remain low. Further, the information presented in the (bi)annual usage survey (primary source of documentation) used to confirm and verify these low emissions may be based on user estimates or other estimation methods that **DO NOT** need to be traceable to a secondary source of documentation (e.g., monitoring data, databases, logbooks, etc.). See Section 5.2 Point Source Evaluations.” *Id.*, p. 20 of 130.

²⁴ *Id.*, p. 5 of 130.

²⁵ *Id.*

²⁶ QAPP, p. 21 of 130.

²⁷ *Id.*, p. 6 of 130.

definitions.³⁰ CCNS believes basing the QAPP on the terminated FFCA is a substantive deficiency in LANL's compliance with Subpart H. The QAPP should be based on the applicable regulations. Had the ITAT investigated the FFCA's status during the third audit as requested by CCNS and IEER, these substantive deficiencies could have been found and addressed.

6. Limited Scope of Third Independent Compliance Audit. The third compliance audit conducted by the ITAT was limited to the MAQ and did not cover the entire LANL facility as defined by 40 CFR §61.91(b).

WORK AFFECTED BY THE DISPUTE

1. Third Independent Technical Audit. The third compliance audit by the ITAT under the Consent Decree was incomplete due to this dispute.

2. Compliance Documents. DOE and LANL are required to submit an annual NESHAP emissions report to EPA Headquarters and Region 6. 40 CFR §61.94. The LANL emission reports for the years 2000 and 2001 were submitted and approved by EPA, despite the fact that the monitoring and reporting conducted for the annual reports relied upon the periodic confirmatory measurements exemptions found in the terminated FFCA. The EPA approvals should be rescinded. EPA should carefully review the 2002 annual emissions report when it is submitted later this year.

3. Lack of Quality Assurance of Data. CCNS and IEER raised the issue of the lack of quality assurance of the data reported by the facilities and the lack of compliance with applicable DOE Orders.³¹ LANL does not have a program assuring the quality of the data provided by the low emission facilities to the MAQ as required by Subpart H so that an independent auditor may verify compliance.³²

4. Other Substantive Deficiencies. IEER also found three other substantive technical deficiencies involving detection of plutonium-238 particles in stack and ambient air sampling,³³ the need for continuous air monitoring of emissions from proposed Technical Area-54 waste characterization activities,³⁴ and uncertainties associated with siting AIRNET stations.³⁵

²⁸ Id., pp. 5 of 130, 34 of 130, 51 of 130, 114 of 130, 126-127 of 130.

²⁹ Id., pp. 18 of 130, 25 of 130, 70 of 130, 87-88 of 130, 100 of 130, 102 of 130.

³⁰ Id., pp. 22 of 130, 28 of 130.

³¹ IEER Final Report, p. 6-14, C-4.

³² EPA Guide.

³³ Id., pp. 16-20.

³⁴ Id., p. 15.

³⁵ Id., p. 20.

POSITION OF CCNS WITH RESPECT TO THE DISPUTE

The purpose of the comprehensive independent technical audits is to verify whether LANL is in full compliance with Subpart H. Consent Decree §4.1. The problems with the third audit process are very serious because the ITAT audited LANL's 2001 compliance in accordance with the terminated FFCA. Three other substantive technical deficiencies were found by IEER involving detection of plutonium-238 particles in stack and ambient air sampling,³⁶ the need for continuous air monitoring of emissions from proposed Technical Area-54 waste characterization activities,³⁷ and uncertainties associated with AIRNET station siting.³⁸ During the third audit, the ITAT failed to identify these substantive deficiencies, despite the fact that CCNS and IEER attempted to direct the ITAT's attention to these matters.

CCNS believes that LANL is not in compliance with the Subpart H for radionuclide air emissions for the years 2000, 2001 and 2002. The Subpart H regulations, the 1994 and 1997 MOUs, DOE Orders, and LANL's QAPP all require LANL to make periodic confirmatory measurements for low emission sources with the requisite quality assurance. Yet DOE and LANL lack the required protocol for conducting periodic confirmatory measurements with the necessary quality assurance and sufficient documentation for auditing purposes, and they do not make actual measurements, all of which constitute substantive deficiencies with LANL's Subpart H compliance.

The substantive deficiencies found during the third audit by CCNS and IEER require corrective action. Therefore, CCNS believes that the third audit is incomplete, it should be reopened for review, and the ITAT should call for a fourth audit as required by the Consent Decree to address the substantive deficiencies found during the third audit. Consent Decree ¶4.5(d).

INFORMATION CCNS IS RELYING UPON TO SUPPORT OUR POSITION

The information CCNS is relying upon to support our position include the following documents:

1. 40 CFR 61, Subpart H.
2. *A Guide for Determining Compliance with the Clean Air Act Standards for Radionuclides Emissions from NRC-Licensed and Non-DOE Federal Facilities*, EPA 520/1-89-002, January 1989.
3. DOE Orders 5700.6C, 414.1 and 414.1A.
4. CCNS v. DOE Consent Decree, Case No. 94-1039M/JP (D.N.M.).

³⁶ IEER Final Report, pp. 16-20.

³⁷ Id., p. 15.

³⁸ Id., p. 20.

5. Dr. Arjun Makhijani, *Report of the Monitoring Team of the Institute for Energy and Environmental Research on the Independent Audit of Los Alamos National Laboratory for Compliance with the Clean Air Act, 40 CFR 61, Subpart H in 2001 to Concerned Citizens for Nuclear Safety*, December 18, 2002.
6. Risk Assessment Corporation, *Independent Technical Audit of Los Alamos National Laboratory for Compliance with the Clean Air Act, 40 CFR 61, Subpart H in 2001*, Final Report, DOJ File Number: 90-5-1749A, RAC Report No. 6-DOJ-LANL Audit-2002-FINAL, Neeses, South Carolina, October 2002.
7. Memorandum of Understanding Between the U.S. Environment Protection Agency (EPA) and the U.S. Department of Energy (DOE) Concerning EPA's Clean Air Act Radionuclide Emission Regulation – ACTION MEMORANDUM, September 26, 1994.
8. Memorandum of Understanding Between the U.S. Environment Protection Agency and the U.S. Department of Energy concerning the Clean Air Act Emission Standards for Radionuclides, 40 CFR 61, Including Subparts H, I, Q and T, last Updated: April 17, 1997.
<http://es.epa.gov/oeca/ore/aed/comp/bcomp/b25.html>.
9. In the Matter of: Los Alamos National Laboratory, Los Alamos, New Mexico. Respondent: United States Department of Energy, Federal Facilities Compliance Agreement (FFCA), Docket Nos. 91-NM-C112-002, 92-NM-C112-001, June 13, 1996.
10. Quality Assurance Project Plan for the Rad-NESHAP Compliance Project, ESH-17-RN, R2, October 4, 2001.
11. Steve Fong, DOE, Office of Los Alamos Site Operations, Office of Project Management and Environmental Restoration, October 24, 2002 fax transmittal cover sheet to Joni Arends, CCNS.
12. Carl E. Edlund, P.E., Director, Multimedia Planning and Permitting Division, U.S. EPA Region 6, December 17, 1999 letter to David Gurule, Area Manager, Los Alamos Area Office.
13. David Gurule, P.E., Area Manager, Los Alamos Area Office, Department of Energy, November 23, 1999 letter to Robert E. Hanneschlager, P.E., Acting Director, Multimedia Planning and Permitting Division, U.S. EPA Region 6.

CCNS requests that the informal Dispute Resolution process begin at your earliest convenience.

Sincerely,

Joni Arends
Executive Director

cc: U.S. District Court for New Mexico

Lisa Cummings
Office of Counsel
Department of Energy

Office of Los Alamos Site Operations
528 35th Avenue
Los Alamos, NM 87544

Steve Sugarman
Attorney at Law
618 Paseo de Peralta
Santa Fe, NM 87501

Dr. Arjun Makhijani
Institute for Energy and Environmental Research
By fax to: (301) 270-3029

Elizabeth A. Cotsworth, Director
Office of Radiation and Indoor Air
U.S. Environmental Protection Agency
(202) 565-2065 (fax to Adam Klinger)