



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6

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APR 26 1991

April 16, 1991

Gini Nelson  
Assistant General Counsel  
New Mexico Health and Environment Department  
1190 St. Francis Drive, Room N4050  
Santa Fe, New Mexico 87503

LEGAL

Re: Permit No. NM 089001515; Los Alamos National Laboratory;  
Your letter dated January 30, 1991

Dear Ms. Nelson:

The purpose of this letter is to respond to your letter, dated January 30, 1991, in which you request the Regional Administrator of the U.S. Environmental Protection Agency (EPA) Region 6 to review and reject the modification to the above-referenced permit (the "Permit") made by the U.S. Department of Energy (DOE) and the Regents of the University of California (UC) (hereinafter collectively referred to as the "permittees") by letter dated November 2, 1990. The Regional Administrator has delegated such review authority to the Director of the Hazardous Waste Management Division; consequently, he has asked me to respond to your request. EPA has reviewed the modification, and, for the reasons given below, EPA hereby denies your request that the modification be rejected.

Your January 30 letter is divided into two arguments which you have categorized as "Point I" and "Point II." These two Points are listed below in boldface type along with EPA's response to each, respectively.

**"Point I: The modification is substantial and may not be made pursuant to Class I procedures."**

In the section of your January 30 letter identified as "Point I," you say that the permit modification in question should be rejected because, according to you, it is substantial, and not informational. Since, according to you, the modification is substantial, it cannot be made pursuant to Class I procedures. You say that the modification is substantial because it changes the authority under which DOE and UC will perform the actions described in the Permit. As such, according to you, the modification undercuts the enforceability of the Permit.



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EPA disagrees with your analysis of the modification and its impact on the enforceability of the Permit. The description of the authority under which the Permit is issued, located on the first page of the portion of the Permit which was issued by EPA (enclosed), makes it clear that these terms and conditions of the Permit are issued under, and required by, the Resource Conservation and Recovery Act (RCRA), as amended, including the Hazardous and Solid Waste Amendments of 1984 (HSWA). The provisions of the Permit which require the permittees to monitor and report on radioactive constituents at Solid Waste Management Units (SWMU) are requests for information which were placed in the Permit under EPA's authority under RCRA Sections 3007, 3004(u), and the omnibus authority of 3005(c)(3) (42 U.S.C. Sections 6927, 6924(u), and 6925(c)(3)). These sections provide EPA with authority to request persons, who have handled hazardous wastes, such as the permittees at Los Alamos National Laboratory (LANL), to provide information relating to such wastes. The provisions of the Permit which require the permittees to monitor and report on radioactive constituents are requests for information related to hazardous waste. This information is needed for various reasons, all of which relate to hazardous waste or to hazardous constituents which could be hazardous waste. These reasons are described on page two of the Permit modification (enclosed) as follows:

- (1) to ensure health and safety of EPA and EPA contractor personnel while on site, and during sampling;
- (2) to facilitate safe and accurate analysis of any samples which may be contaminated with radioactive constituents;
- (3) to measure and assess migration of mixed waste; and
- (4) to facilitate the undertaking of corrective measures with respect to hazardous waste by helping to ensure the health and safety of workers and the public during remediation.

The statement in the permit modification,

"DOE agrees to provide such information pursuant to its health and safety responsibilities under the AEA."

is merely a description of one of the reasons that one of the permittees, DOE, agreed to provide the information in question. It detracts not at all from EPA's authority under the Permit, which is based on RCRA authority, to require the permittees to monitor and report on radioactive constituents as provided in the Permit.

In short, as DOE states in its letter requesting the modification,

The Class I modification language... is for informational purposes only and does not make any changes whatsoever in the action which the Permittee is required to perform under the Permit [emphasis added].

EPA does not, of course, derive its authority to require such information from the Atomic Energy Act. As an informational change to the Permit, it is appropriate that this modification be made as a Class I modification under 40 CFR § 270.42. See 40 CFR § 270.42 Appendix I paragraph A(1).

**"Point II: A Alternatively, if EPA is unable to reject the Class I modification, explicit language should be added."**

In the section of your January 30 letter identified as "Point II," you say that if EPA allows the modification in question to be made, then DOE and UC "are free to assert that RCRA cannot require the activities the Permit is conditioned upon," and that DOE and UC have asserted this position in pending litigation over the State-issued portion of the LANL Permit. Therefore, according to you, EPA should add explicit language by which UC and DOE acknowledge that EPA may require monitoring of and reporting on radionuclides at the LANL facility under EPA's RCRA authority.

EPA disagrees with your comments under Point II. As EPA has stated above, under our analysis of your Point I, the description of the authority under which the Permit is issued, located on the first page of the portion of the Permit which was issued by EPA (enclosed), makes it clear that these terms and conditions of the Permit are issued under, and compliance is required by, the Resource Conservation and Recovery Act (RCRA), as amended, including the Hazardous and Solid Waste Amendments of 1984 (HSWA). As stated above, RCRA gives EPA the authority to request information regarding radionuclides, as long as that request is related to hazardous waste, and, at LANL, the information requested is clearly related to hazardous wastes. Consequently, EPA has clear authority to issue those portions of the Permit which require the permittees to monitor and report on radionuclides. We have reviewed the Memorandum in Support of United States' Motion for Summary Judgment in U.S. v. State of New Mexico, No. CV 90-0276 SC (D. N.M. filed Mar. 19, 1990), and we do not view the positions taken therein to be inconsistent with the position EPA has taken regarding the Permit provisions described in this modification, which provisions are listed in the modification by paragraph number.

Thank you for your comments on these matters. If you have any further questions, please contact James E. Costello at (214) 655-2120.

Sincerely yours,

*Allyn M. Davis*

Allyn M. Davis  
Director  
Hazardous Waste Management Division (6H)

Enclosures

cc: Kathleen Sisneros (NMEID)

Counsel for Petitioners

Lisa Cummings, Esquire  
Counsel for Petitioners

Gini Nelson  
Assistant General Counsel  
New Mexico Health and Environment Department

**HAZARDOUS WASTE INCINERATION: QUESTIONS AND ANSWERS**

Prepared for

**Office of Solid Waste  
U.S. Environmental Protection Agency**

by

**ICF Incorporated  
9300 Lee Highway  
Fairfax, VA 22031-1207**

**April 5, 1988**

**EXHIBIT EIGHT**

## CHAPTER 2

## THE REGULATORY PROGRAM FOR HAZARDOUS WASTE INCINERATORS

The treatment, storage, and disposal of hazardous wastes, including land-based incineration of hazardous wastes, is regulated under Subtitle C of The Resource Conservation and Recovery Act (RCRA). RCRA was passed by Congress in 1976 and amended by the Hazardous and Solid Waste Amendments (HSWA) in 1984. Under RCRA, EPA is required to set standards for the management of hazardous waste from "cradle to grave," from the time the waste is first produced until it is treated or disposed. RCRA provides EPA with the authority to develop standards for producers and transporters of hazardous wastes and facilities that treat, store, or dispose of hazardous waste. RCRA requires that these standards be sufficiently stringent to protect human health and the environment.

**Who regulates hazardous waste incinerators?**

RCRA gives states the option of developing and administering their own hazardous waste programs in place of the federal program that EPA administers. EPA must approve a state's program before it can take the place of EPA's program. To gain approval, a state program must be consistent with and equivalent to the federal RCRA program, and at least as stringent. State programs may be more stringent or extensive than the federal program. For example, a state may adopt a broader definition of hazardous waste in its regulations, designating certain wastes hazardous that are not hazardous under the federal regulations. This booklet describes the federal RCRA program, the minimum requirements applicable throughout the country. These regulations are contained in Parts 260-271 of Volume 40 of the Code of Federal Regulations. Volume 40, Part 264 of the Code of Federal Regulations contains standards for permitted hazardous waste facilities; Subpart O of Part 264 gives the specific standards for incinerators. Regulations that are new or have not been finalized can be found in the Federal Register, a document that is published daily and contains notification of government agency actions.

**How do regulations ensure safe operation of hazardous waste incinerators?**

EPA has developed **performance standards** for the incineration of hazardous wastes based on research on incinerator air emissions, and health and environmental risk studies. These standards have been developed under RCRA to ensure that incineration is carried out in a safe manner and poses no threat to the health of people living or working nearby or to the surrounding environment. All incinerators emit gases through a stack, or chimney, as the final step in the incineration process. These gases are composed primarily of carbon dioxide and water vapor, two harmless gases, but may contain trace quantities of pollutants, as do emissions from other fuel-burning facilities, such as power plants. The quantity of pollutants in the emissions is the major determinant of the risk of incineration. The performance standards cover emissions of designated organic compounds, hydrogen chloride, and particulate matter.

In addition to performance standards, owners or operators of incinerators are subject to general standards that apply to all facilities that treat, store, or dispose of hazardous waste. General standards cover such aspects of facility operations as personnel training, inspection of equipment, and contingency planning. These standards are discussed in more detail in Chapter 5.

**How can EPA or the state ensure that incineration facilities will operate according to regulations?**

Facilities that incinerate hazardous wastes, like other facilities that treat, store, or dispose of hazardous wastes, must apply for and receive a RCRA permit. This permit, based on a detailed analysis of the data provided by the permit applicant (either the owner or operator of the incinerator), specifies conditions for operations that ensure that the incinerator will meet all applicable RCRA standards. Permits can be issued by EPA or by states with approved RCRA programs. The procedures followed for issuing or denying a permit, including provisions for public comment and participation, are similar whether EPA or a state agency is responsible. (Chapter 3 discusses the permitting process.)

Once a permit is issued, the owner or operator of the incinerator is legally bound to operate according to the conditions specified within it. The permitting agency enforces the permit by periodically inspecting the facility to ensure that it is meeting the conditions specified in its permit. When owners or operators fail to meet the requirements of their permits, they are subject to a broad range of civil and criminal actions, including suspension or revocation of their permit, fines, or imprisonment. (A more detailed discussion of enforcement is found in Chapter 4.)

**How does EPA measure incinerator performance?**

To qualify for permitting, an incinerator must be able to burn wastes and cleanse combustion gases so that only very small quantities of pollutants are emitted through its stack. EPA's principal measure of incinerator performance is **destruction and removal efficiency (DRE)**. Destruction refers to the combustion of the waste, while removal refers to the cleansing of pollutants from the combustion gases before they are released from the stack. For example, a 99.99 percent DRE (commonly called "four nines DRE") means that one molecule of an organic compound is released to the air for every 10,000 molecules entering the incinerator; a DRE of 99.9999 percent ("six nines") reduces this to one molecule released out of every 1,000,000 molecules.

**Do performance standards apply to all pollutants present in the original waste?**

It is technically infeasible to monitor DRE results for all organic compounds contained in the waste feed. Therefore, selected hazardous compounds, called the **principal organic hazardous constituents (POHCs)**, are designated in the permit. POHCs are selected based on their high concentration in the waste feed and their difficulty to burn compared to other organic compounds in the

waste feed. If the incinerator achieves the required DRE for POHCs, then the incinerator should achieve the same or better DRE for organic compounds that are easier to incinerate.

**What levels of incinerator performance do RCRA standards require?**

RCRA performance standards require: (1) a minimum destruction and removal efficiency of 99.99 percent for organic compounds designated in the permit as the principal organic hazardous constituents, or POHCs; (2) a minimum destruction and removal efficiency of 99.9999 percent for **dioxins** and **dibenzofurans**; (3) removal of 99 percent of hydrogen chloride gas from the incinerator emissions, unless the quantity of hydrogen chloride emitted is less than 4 pounds per hour; and (4) a limit of 180 milligrams of particulate matter per dry standard cubic meter of gas emitted through the stack. These standards were set based on analyses of potential risks to health or the environment and the levels of performance that have been measured for properly-operated, well-designed incinerators. Although the 99.99 DRE is protective of human health and the environment, a more stringent standard of 99.9999 DRE was set for wastes containing dioxins or dibenzofurans because of EPA's and the public's concern about these particularly toxic chemicals.

**Do performance standards differ for incinerators which accept PCBs?**

TSCA standards are somewhat different in form from RCRA standards. For incineration of liquid PCBs, TSCA standards set a minimum "dwell" time (time in the combustion chamber), temperature, and oxygen levels. For non-liquid PCBs, the TSCA standards require 99.9999 DRE. Although the general TSCA standard for liquid PCBs should result in 99.9999 DRE, EPA requires permit applicants wishing to burn liquid PCBs to make a demonstration to prove that they will achieve 99.9999 DRE during incineration.



Department of Energy  
Albuquerque Operations  
Los Alamos Area Office  
Los Alamos, New Mexico 87544

SEP 7 1990

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Dr. Allyn M. Davis (6H)  
Director  
Hazardous Waste Management Division  
U.S. Environmental Protection Agency  
Region 6  
1445 Ross Avenue  
Dallas, TX 75202-2733

Re: Los Alamos National Laboratory (NM0890010515)  
Modification to HSWA Hazardous Waste Management Permit

Dear Dr. Davis:

This letter has two purposes. The first purpose of this letter is to notify you that, once the modification, described below, is put into effect, the U.S. Department of Energy (DOE), (the "Permittee") hereby agrees to move for withdrawal or dismissal of Permittee's petition for review of Hazardous Waste Permit NM089001515 (the "Permit") in the action styled In re: Los Alamos National Laboratory, RCRA Appeal No. 90-12. The second purpose of this letter is to notify you, and all persons on the facility mailing list which includes the appropriate units of State and local government specified in 40 CFR Subsection 124.10(c)(ix), of this Class I modification to the Permit.

Specifically, an informational change (See paragraph A(1) of Appendix I to 40 CFR Section 270.42) will be made in Section D of the Permit, on page 10, to include the following language:

Subsection 1004(27) of RCRA, 42 U.S.C. Subsection 6903(27), excludes source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (AEA), as amended, 42 U.S.C. 2011 et seq., from the definition of solid waste as that term is defined in RCRA. Accordingly, such excluded radioactive wastes are not subject to RCRA and are not regulated in this permit. However, this permit provides for monitoring and reporting of radioactive constituents at Solid Waste

Management Units (SWMUs) in Module VIII., paragraphs C.1., C.2., C.6., P.I.A.1., P.I.A.2., P.I.B.1., P.III.A.1., P.III.A.2., P.III.B.2., P.III.C.1., P.III.C.2., P.III.C.3., P.III.C.4., P.III.C.5. and P.III.D. of this permit:

- (1) to ensure health and safety of EPA and EPA contractor personnel while on site, and during sampling;
- (2) to facilitate safe and accurate analysis of any samples which may be contaminated with radioactive constituents;
- (3) to measure and assess migration of mixed waste; and
- (4) to facilitate the undertaking of corrective measures with respect to hazardous waste by helping to ensure the health and safety of workers and the public during remediation.

DOE agrees to provide such information pursuant to its health and safety responsibilities under the AEA.

The above language will be added to the Permit. No Permit language will be deleted. This change in the Permit is necessary in order to help explain why the Permittee will be providing the U.S. Environmental Protection Agency (EPA) with data regarding radioactive materials at the Los Alamos National Laboratory. The Permittee will put this modification into effect once the conditions listed in 40 CFR Subsection 270.42(a), have been met.

The Permittee has already provided the EPA with all applicable information required by 40 CFR Sections 270.13 through 270.21, 270.62 and 270.63. This modification does not alter any of the information which the Permittee has provided under those code sections.

The Class 1 modification language listed above is for informational purposes only and does not make any changes whatsoever in the action which the Permittee is required to perform under the Permit.

The Department understands that any person may request review of this modification.

Sincerely,

Original Signed By  
HARRY T. SEASON

Harry T. Season, Jr.  
Acting Area Manager

Dr. Allyn M. Davis

3

cc: facility mailing list

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