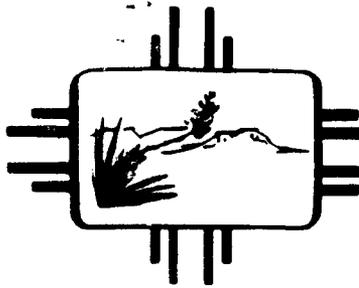


New Mexico Health and Environment Department



GARREY CARRUTHERS
Governor

DENNIS BOYD
Secretary

MICHAEL J. BURKHART
Deputy Secretary

RICHARD MITZELFELT
Director

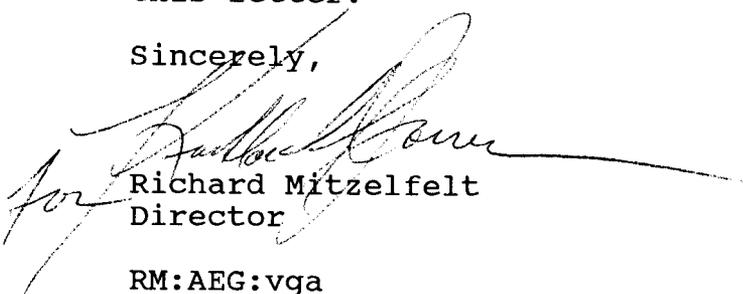
November 16, 1989

Dear Concerned Citizen:

The Environmental Improvement Division (EID) issued the hazardous waste operating permit to Los Alamos National Laboratory on November 8, 1989. EID's responses to comments are enclosed. The changes made in the draft permit due to public comments are covered in the following responses: 10, metal emissions; 11, incinerator ash; 14 & 27, monitoring of radioactivity in the waste feed and exhaust gas and total hydrocarbons in the exhaust gas; 25, reverification of the destruction and removal efficiency. Changes made in response to comments by EID, Environmental Protection Agency and Los Alamos National Laboratory are in responses 51-56, 58-59, 61, 63-64. A copy of the permit is in the Espanola public library.

You have the right to appeal this decision to the Environmental Improvement Board (EIB) in accordance with the New Mexico Hazardous Waste Management Regulations (HWMR-5), as amended 1989, section 902.G. A copy of this section of HWMR-5 is enclosed. Petitions for review should be sent to the EIB at the address on this letter.

Sincerely,


for Richard Mitzelfelt
Director

RM:AEG:vga

Encls.



Response to Comments on the Draft Hazardous Waste Permit for Los Alamos National Laboratory.

The Environmental Improvement Division (EID) of the Health and Environment Department proposed to issue a permit to the Los Alamos National Laboratory (LANL) for the following management practices for hazardous waste: treatment and storage in tanks, storage in containers and treatment by incineration, and submitted a proposed draft permit for public comment on May 10, 1989. A formal public hearing was held during July 18-20, 1989 and the public comment period ended August 24, 1989. This letter is a summary of the comments received during the public comment period and the formal public hearing and EID's responses to these comments.

Additionally, the letter contains responses to comments received from LANL, the U.S. Environmental Protection Agency (EPA), Region VI and changes initiated by EID. The references to pages are to the pages in the transcript of the public hearing where the comment is recorded. The complete file of the written comments is available in the files of the Hazardous Waste Bureau in Santa Fe; a copy of the transcript of the hearing record is in the Santa Fe office and the Espanola Public Library. The references to Permit Modules are identical in the draft and final permits. The Public comments have been broken up into several general categories and they are hazardous waste, incineration, radioactive wastes, permitting process, oversight and miscellaneous.

Comments from the Public

Hazardous Waste

1. **Comment:** Inquiry (pp. 57, 60, 90, 91, 237; one letter) was made as to which chemicals and the quantities that would be incinerated. **Response:** The chemicals and quantities are designated in Permit Attachment G and the codes used in that attachment are defined in Permit Attachment K. The bulk of the chemicals to be incinerated are ignitable solvents, but many other chemicals in small quantities could be burned. The incinerator can handle approximately 100 pounds of waste per hour and the permit specifies a limit expressed in terms of the heat content of the waste. Permit Module V.B.2.b. **Permit modification:** None.

2. **Comment:** Several people (pp. 92, 189, 210) expressed concern that LANL would be accepting hazardous wastes from other Department of Energy (DOE) facilities for incineration. **Response:** The permit specifically prohibits accepting wastes from any facility not a part of LANL proper (Permit Module II.B.2.). **Permit modification:** None required.

3. **Comment:** There were several questions (p. 50 and throughout the record) as to why EID was addressing only chemical wastes with this permit and not radioactive and mixed wastes also. **Response:** The EID chose to address those aspects of the LANL application for which clear authority exists. Please see the enclosed statement "EID July 18, 1989 Statement Responding to Particular Concerns Expressed by Members of the Public Regarding the LANL Mixed Waste Incinerator" which details EID's authority on this issue. As is indicated in that Statement, radioactive wastes are not defined as hazardous waste; hazardous wastes are chemical in nature and mixed wastes are commingled radioactive and hazardous waste. In regards to mixed wastes, the state expects to receive authorization for mixed waste this year and will address the incineration of mixed wastes at LANL after that. **Permit modification:** None.

4. **Comment:** There were several inquiries (pp. 215, 312, 366; one letter) as to whether or not the permit postulated a "worst case" scenario for disaster training. **Response:** The permit requires a level of staffing and training for emergency response which could be capable of addressing most anticipated spills (Permit Attachment D: Contingency Plan). Additionally, in regards to the incinerator, there are several operating conditions under which the incinerator automatically shuts down (Permit Module V.F.10.). However, the EID did not postulate any specific release which must be addressed. Statewide emergency response is under the Department of Public Safety (DPS) which coordinates and directs actions under the state Emergency Response Act. One exercise has been conducted jointly with LANL by DPS. **Permit modification:** None.

5. **Comment:** Several people (pp. 54-56, 60, 61, 171, 282) questioned the handling of wastes and wanted to know how the chemical hazardous wastes would be separated from the mixed wastes. **Response:** The hazardous chemical wastes are separated from mixed wastes at the source and kept separate. There will be no attempt to break a mixed waste down into its hazardous waste component and its radioactive component. **Permit modification:** None.

6. **Comment:** Concern (p. 150) was expressed over the lack of specific regulations for mixed wastes. The EPA does not intend, at this time, to promulgate separate regulations for mixed wastes. The chemical component of mixed wastes will be subject to the same regulations as presently exist for strictly hazardous waste. Also see the EID July 18, 1989 Statement, p.4. **Permit modification:** None.

Incineration

7. **Comment:** Information (pp. 54, 76, 235, 348) was sought regarding the operating history of the LANL incinerator.

Response: LANL has incinerated waste and non-waste materials for various reasons for nearly thirty years. Materials are incinerated to recover plutonium, provide consolidation of high-volume wastes and to demonstrate the combustibility of various materials. The regulations (HWMR-5, Part V, 40 CFR section 264.74(b) and the permit (Permit Module I.G.) require LANL to keep operating records until closure is complete and they must be available for review at each inspection or as necessary to monitor compliance. **Permit modification:** None.

8. **Comment:** Several people (pp.83, 140) asked how many incinerators exist at LANL. **Response:** There are three existing incinerators and three proposed. The existing ones are the TA-50 CAI (controlled air incinerator), the TA-16 industrial waste incinerator (These are the two in the permit.), and the TA-55 incinerator which recovers plutonium from rags. The TA-50 CAI, for a second time, and the TA-55 incinerator, for the first time, will be subject to permitting when the state addresses the mixed waste activities at LANL. The three proposed incinerators are: the municipal waste incinerator, which is still awaiting funding, the second one at TA-50 which will be for hazardous waste, mixed waste and low level radioactive wastes and another one near TA-16 for paper and wood wastes contaminated with high explosives. New incinerators are required to obtain the appropriate permits prior to construction and operation. **Permit modification:** None.

9. **Comment:** There was a question (p.74) on the efficiency of the incinerator. **Response:** The incinerator is required to destroy or remove 99.9999% of the dioxin-type wastes and 99.99% of the other chemical wastes (HWMR-5, Pt. V, 40 CFR sections 264.343(a)(1) and (2)). The efficiencies were demonstrated in a trial burn conducted in 1986. **Permit modification:** None.

10. **Comment:** One letter was received stating that incineration does not destroy wastes. **Response:** The EID interprets this to mean that elemental metal wastes are not destroyed and this is correct. The EID has recognized this concern and has added the requirement that hazardous wastes containing metals not have waste feed rates exceeding those dictated by the emissions screening limits designated in the EPA "Guidance on Metals and Hydrogen Chloride Controls for Hazardous Waste Incinerators, Vol. IV, March, 1989. **Permit modification:** Added this requirement at Permit Module V.C.4.

11. **Comment:** There were many questions (pp.55,75,284,300-304, 347) on the disposal of the ash from the incinerator. **Response:** Most of the waste incinerated at LANL is liquid waste and little ash is generated. The permit requires that any ash be contained and disposed of at a regulated disposal facility (Permit Module V.G.). **Permit modification:** The permit was modified to require that the ash resulting from the incineration of a listed waste be

cemented prior to disposal. In regards to the ash resulting from the burning of a characteristic waste, if analysis of the ash indicates that it is a characteristic waste, it must be cemented prior to disposal (Permit Module V.G.1.).

12. **Comment:** Many people (pp. 75,130,234; eight letters) questioned the safety of the environmental standards for the release of hazardous materials. **Response:** The performance standards developed by EPA for the incineration of hazardous wastes were based on research on incineration air emissions and health and environmental risk studies. (Hazardous Waste Incineration: Question and Answers, EPA 530-SW-88-018). States, in developing their own programs and in qualifying for authorization from EPA, must adopt regulations at least as stringent as EPA's and may adopt more stringent regulations. However, the New Mexico Legislature has required that none of the state's hazardous waste regulations can be more stringent than the federal regulations (Section 74-4-4 NMSA 1978). See response 34 under the permitting process below for the process for promulgating regulations in New Mexico. **Permit modification:** None.

13. **Comment:** Several people (pp.58,85,181; four letters) inquired as to how the moratorium on incineration enacted in House Bill 59 effected these two incinerators. **Response:** House Bill 59 was passed by the 1989 legislature and signed into law by the Governor. The moratorium enacted by this Bill addresses all new incinerators and exempts medical waste incinerators and the TA-50 CAI and the TA-16 industrial waste incinerator. Please see comment 8. (see attached Bill). **Permit modification:** None.

14. **Comment:** Numerous people (pp. 94-96, 143, 286, 290, 329, 356-357, 405, 511; three letters) questioned that monitoring of only a few parameters would be sufficient to ensure that no noxious emissions occurred. **Response:** The permit requires continuous monitoring of carbon monoxide in the exhaust gas, temperatures and oxygen levels in the combustion chambers and pressure drops and flow rates in the exhaust scrubber system. (Permit Module I.E.1-8.). These parameters were monitored and demonstrated in the trial burn as those ensuring the required destruction and removal efficiency (DRE). **Permit modification:** The EID has added a requirement for monitoring of total hydrocarbons and radioactivity in the exhaust (Permit Module V.E.9. and 10.) and radioactivity in the waste feed (Permit Module V.C.3.) to address the public concerns over these parameters. The present information available through EPA indicates that, at levels of 100 parts per million or less of carbon monoxide, there is negligible formation of noxious products of incomplete combustion. The addition of a hydrocarbon monitor will confirm this information. All these parameters will be continuously recorded on charts and these charts will be retained by LANL for inspection by the EID and EPA.

15. **Comment:** There were several inquiries (pp. 92-94, 289, 321, 359-361; one letter) as to how the incinerator operating parameters were determined. **Response:** All incinerators emit gases through a stack as the final step in the combustion process. Some of these emissions are pollutants and it is the quantity of these pollutants that determines the risk associated with incineration. To keep this risk at a minimum, performance standards for the quantity of designated organic compounds, hydrogen chloride and particulate matter that an incinerator can emit have been established by EPA. To qualify for a permit, an incinerator must be able to burn wastes and cleanse combustion pollutants so that the quantity of pollutants in its emissions does not exceed the performance standards. The destruction and removal efficiency (DRE) is EPA's main measure of an incinerator's performance. Destruction refers to the combustion of the waste and removal to the cleansing of the pollutants from the combustion gases before they are released from the stack. Because it is impossible to monitor the DREs of every organic compound in the waste stream, principal organic hazardous constituents (POHCs) are selected to be burned in order to determine an incinerator's DRE. These are usually organic compounds which comprise a large concentration in the waste stream and which are difficult to burn. If the incinerator meets the required DRE for POHCs, it should be able to meet or surpass the DRE required for organic compounds easier to burn. The performance standards are: a DRE of 99.99% for the POHCs designated in the permit; a DRE of 99.9999% for dioxins and dibenzofurans; removal of 99% of the hydrogen chloride gas from the emissions, unless the quantity of hydrogen chloride is less than four pounds per hour; a limit of 180 milligrams of particulates per dry standard cubic meter of gas emitted through the stack (Hazardous Waste Incineration: Questions and Answers, EPA 530-SW-88-018). For the trial burn in 1986, the POHCs were carbon tetrachloride and trichloroethylene which are among the most difficult organic compounds to burn. This trial burn was witnessed by EID and EPA and separate contractors were used for the sampling and for the analyses. **Permit modification:** None.

16. **Comments:** Concern (p. 533) was expressed that the filters on the incinerator do not stop all particles and gases. **Response:** This is partially correct in that gases pass through filters, but particles are retained. The LANL incinerator has nuclear-grade HEPA filters to remove fine particulates and radionuclides and a venturi scrubber to remove the larger particulates; the absorber columns remove the acidic gases. Additionally, the LANL incinerator exceeds the EPA standards for emissions of particle removal (Final Report, Lab. Job No. LJ 10309/KA-035, Controlled Air Incinerator Upgrade, TA-50 Kaiser Engineers, Inc., August 16, 1989). **Permit modification:** None.

17. **Comment:** Two letters were received expressing concern that

the communities downwind from LANL would receive the emissions from the incinerator. **Response:** The air emission patterns for the proposed municipal incinerator indicated that the downwind effects would not exceed the published standards. The incinerator in the permit is much smaller than the proposed municipal incinerator and the effect should also be less. Please see comment 8. **Permit modification:** None.

18. **Comment:** Several individuals (three letters) mentioned the formation of acid rain and other environmental effects from burning. **Response:** Acid rain is believed to be primarily the result of combustion of coal and other fuels which contain sulfur. Such fuels lead to sulfur oxides which are precursors to sulfuric acid. The wastes to be incinerated at LANL do not contain sulfur in most cases. The wastes do contain chlorides in most cases and the acid gases formed by the combustion are removed at 99% efficiency or better by the exhaust scrubbers. **Permit modification:** None.

19. **Comment:** Six letters were received expressing concern over the possible formation of noxious substances due to incomplete combustion. **Response:** The permit (Permit Module V.F.7.b. and c.) specifies that an excess of oxygen be present and that only limited formation of carbon monoxide can occur. These parameters have been shown by EPA to indicate that the combustion process has proceeded essentially to completion. **Permit modification:** None.

20. **Comment:** There were inquiries (p.110; one letter) regarding the existence of an Environmental Impact Statement (EIS) for the incinerator and the request that the permit not be issued until after review of the EIS. **Response:** An EIS is required by the National Environmental Policy Act (NEPA) whenever activities by a federal facility may adversely impact on the environment. However, EPA determined in 1979 that a facility preparing a Resource Conservation and Recovery Act (RCRA) permit application addresses all the health and environmental issues required in an EIS. Consequently, an EIS is not required when issuing a RCRA permit (Hazardous Waste Incineration: Questions and Answers, EPA 530-SW-88-018). An EIS was prepared in 1972 for the incinerator. EID has inquired as to whether or not an EIS or environmental assessment, a scaled-down EIS, has been prepared since 1980, but has not yet received a reply (Letter of September 28, 1989 to Mr. Troy E. Wade, Acting Assistant Secretary for Defense Programs). A copy of the 1972 EIS was received November 3, 1989. This document was replaced by the "Environmental Statement Transuranium Solid Waste Development Facility, Los Alamos Scientific Laboratory, New Mexico, April, 1973 and a copy of that document was also received on November 3, 1989. Both were sent by Constance L. Soden, Chief, Environmental Programs Branch, DOE Albuquerque Operations Office. **Permit modification:** None.

21. **Comment:** Several individuals (pp. 110, 143,145; one letter) thought the state's standards were too lax and the more stringent ones of other countries or states should be followed. **Response:** See the response to Comment 12 regarding the statutory requirement that the state's regulations be no more stringent than those of EPA. **Permit modification:** None.

22. **Comment:** 274 petitioners asked the EID to issue an emergency order to prohibit the operation of the incinerator. **Response:** The EID may issue emergency orders under Section 74-2-10 of the Air Quality Control Act or Section 74-4-13 of the Hazardous Waste Act. Section 74-2-10 of the Air Quality Act reads "create an emergency which requires immediate action to protect human health and safety." and Section 74-4-13 of the Hazardous Waste Act reads "may present an imminent and substantial danger to health or the environment." The EID does not think that these bases will exist once this incinerator begins operating and will not issue orders under these sections. The performance standards are those required to ensure that the incinerator is properly operating. **Permit modification:** None.

23. **Comment:** Several people (p.224, 527; seven letters) commented on alternative technologies to replace incineration. **Response:** It is up to the applicant to determine which technology will be employed at her/his facility and then to detail how she/he plans to manage that technology so that human health and the environment are protected. It is EID's responsibility to determine if the management practices and the physical plant detailed in the permit application meet the technical standards required. The most frequent suggestion was to require supercompaction in place of incineration. Supercompaction is not applicable to liquid wastes which comprises a good portion of LANL's waste stream. Some of the advantages of incineration are: incineration results in the destruction of organic hazardous waste, supercompaction does not; volume reduction by incineration is 100 to 1 whereas that of supercompaction is 7 to 1 (Hazardous Waste Incineration: Questions and Answers, EPA 530-SW-88-018). **Permit modification:** None.

24. **Comment:** Inquiries (pp. 308, 418) were made about the modifications made to the incinerator after the trial burn. **Response:** The combustion chambers were unmodified. The exhaust system was rebuilt of more durable materials and expanded in size to provide more removal efficiency. The filter housings were redesigned to allow easier replacement of filters and alternate filters so that expended filters could be switched out of the process.(Final Report, Lab, Job No. LJ 10309-50/KA-035, Controlled Air Incinerator Upgrade, TA-50. Kaiser Engineers, Inc., August 16, 1989). **Permit modification:** None.

25. **Comment:** One individual (p. 526) requested that trial burns

be required at appropriate intervals, such as six months. **Response:** The permit (Permit Module V.I.5.b.) already requires reverification of the DRE whenever modifications to the incinerator affect the DRE, after 8000 hours of hazardous waste incineration time or five years after the effective date of this permit, whichever comes first. (Permit Module V.I.5.b.). **Permit modification:** The additional requirement that the DRE be verified if EID determines that new information requires further testing was added to Permit Module V.I.5.b.

26. **Comment:** There was an inquiry (p.78) as to the availability of epidemiological studies regarding the health effects due to emissions of toxic materials and/or radionuclides by LANL on the communities contained in the LANL region. **Response:** Dr. Sewell, Chief of the Epidemiology Bureau of EID was asked to provide a listing of any known studies applicable to the above concerns and, if possible, a source for each (Letter of September 14, 1989). In a letter dated September 22, 1989, but not received in the Hazardous Waste Program until November 3, 1989, Dr. Sewell indicated that Drs. Galke and Voelz in the Epidemiology Group at LANL have conducted some studies. **Permit modification:** None.

Radioactive Wastes

27. **Comment:** The separation of radioactivity issues from the permit was questioned by the majority of those at the hearing (p. 50 and throughout the hearing record; two letters, 248 people wrote or signed a petition). **Response:** Radioactive wastes are not subject to the regulations (HWMR-5, Pt.II, 40 CFR section 261.4(a)(4)). EID's situation regarding mixed wastes is outlined in the EID July 18, 1989 Statement. The EID does recognize public concern over the potential release of radioactive materials and has added additional monitoring to the Permit. **Permit modification:** Monitoring for radioactivity was added to the operating requirements for the incinerator (Permit Module V.F.9.).

28. **Comment:** Several people (pp.76, 79,81) inquired as to who was monitoring the Los Alamos area for emissions of radionuclides. **Response:** LANL conducts continuous monitoring of radionuclide emissions and reports the results annually in a public document. Radioactive emissions standards are contained in the regulations published under the federal Clean Air Act and enforced by EPA. All sources of emission are reviewed for their contribution to the total which is subject to the standards. EID receives the LANL environmental reports which may be reviewed in the Santa Fe office. The EID Air Quality Bureau also monitors some of the ambient air parameters in the LANL area and prepares an annual report which is available from the Santa Fe office. **Permit modification:** None.

29. **Comment:** Several commentors (pp. 532,563; four letters)

urged the government and industry to stop producing radioactive materials and wastes. **Response:** It is not the role of the EID to prohibit business, but to enforce practices to provide for the protection of the environment and people by such businesses. **Permit modifications:** None.

30. **Comment:** Forty writers expressed concern that there are no state regulations governing radioactive emissions from federal facilities. **Response:** All state regulations evolve from state law and must conform to the dictates of the law. The state Air Quality Control Act at Section 74-2-5.B.(1) requires that the Environmental Improvement Board (EIB) adopt regulations that "shall be no more stringent than, but at least as stringent as required by federal standards of performance." The federal Clear Air Act presently has regulations governing radioactive emissions from federal facilities. Therefore, there presently are regulations governing LANL emissions at the federal level. The Air Quality Bureau is currently working on regulations for municipal incinerators and expects to do those for radioactive emissions in approximately two years. **Permit modification:** None.

Permitting Process

31. **Comment:** There were six inquiries (pp. 58,61, 137, 154, 223, 340) as to the reasons EID did not prepare one permit which combined all the requirements of all environmental regulations. **Response:** It is administratively difficult to combine all the requirements of several programs into one permit. The particular constraints due to different priorities within the various programs make such a combination impractical. **Permit modification:** None.

32. **Comment:** Several people (p. 147) questioned why the EID Director was not present to answer questions and one letter asking about the Director's role in the process was received. **Response:** The Director is required to make a decision based on the total record and does not participate in the day-to-day activities. The staff prepares a decision paper outlining the alternatives and summarizing the support for each. To facilitate reaching an unbiased decision, it is appropriate to separate the Director from the influence of any one group. **Permit modification:** None.

33. **Comment:** A few people inquired as to the decision-making process under the regulations (pp. 61, 65, 68, 325). **Response:** The New Mexico Hazardous Waste Act, Section 74-4-4.2 and the HWMR-5, Pt. IX, sections 902.F. and G. require that the Director of the EID make the decision on any hazardous waste permit. Any person adversely affected by the Director's decision may appeal that decision to the Environmental Improvement Board (EIB), the group appointed by the Governor to promulgate the regulations

which the EID enforces. Attached is a copy of the portion of the regulations regarding the appeal process and all requests for a review should be addressed to the EIB at the address on this letter. **Permit modification: None.**

34. **Comment:** Several commentors (pp. 180, 219-220, five letters) expressed confusion over the existence of more than one set of regulations. **Response:** There are numerous laws and regulations promulgated to implement these laws. Each set of regulations is independent of the others and is applied separately. The issuance of a permit under one law does not affect the issuance of a permit under another law, because each is independently enforced and applied. Please see the EID July 18, 1989 Statement. **Permit modification: None.**

35. **Comment:** Numerous individuals (pp. 65, 67, 68, 72, 124, 132, 198-199) indicated that they wanted the laws and regulations changed to include radioactivity standards. **Response:** The EID can only enforce the laws and regulations; it cannot write laws or promulgate regulations. To change the laws the public must contact the appropriate public officials. In New Mexico, it is generally the EIB which promulgates regulations. The process requires that the EIB advertise the subject and availability of the proposed regulations for public comment. The EIB meetings are open to the public. For more information, write the EIB Secretary at the address on this letter. **Permit modification: None.**

36. **Comment:** Several people (pp. 54, 133, 220, 233) expressed confusion over the term "interim status". The Resource Conservation and Recovery Act (RCRA) established the hazardous waste program in 1976 and EPA promulgated the first set of regulations on November 19, 1980. Under RCRA (HWMR-5 Pt. IX, 40 CFR section 270.1), any facility storing, treating or disposing of hazardous waste must have a permit to do so. Any facility which was managing hazardous waste on the above date or had begun construction before or on that date was considered an existing facility. An existing facility which had notified as handling hazardous waste and submitted the Part A of a permit application qualified for interim status. An owner and operator with interim status are treated as having been issued a permit and are required to follow the interim status regulations in HWMR-5, Pt. VI. Interim status is terminated when a final decision is made on a facility's permit application. If a permit is issued, the facility can continue to operate the units covered by the permit, according to the requirements outlined in the permit. If a permit is denied, in whole or in part, interim status is terminated and the facility must stop using the units not issued a permit. Denying a permit does not mean that the facility must stop generating hazardous waste, rather it means that the facility cannot store, treat or dispose of any hazardous waste on site and it must be removed from the facility within 90 days.

Thirteen individuals wrote in to express concern that LANL had been granted a research permit for the existing incinerator. A research permit is a specific permit to demonstrate new technology and must be issued under the same procedures as an operating permit. No such permit has been issued. **Permit modification:** None.

37. **Comment:** Several comments (pp. 158, 175, and four letters) were received that the permitting process was a sham and that the decision was predetermined to approve the application. **Response:** The permitting process has two decision points. The first occurs when the application is submitted and a completeness determination is made. An incomplete application is rejected; a complete application is accepted. This occurred in January 1987. Once an application is administratively complete, it is reviewed for technical adequacy and a tentative decision is made to prepare a permit or recommend denial. The appropriate documents for either of these decisions are prepared, the public notified and invited to comment on the proposed decision. A hearing such as the one on July 18-20, 1989 may be held to receive public comment. At the end of the public comment period, the record is closed, the comments evaluated and responded to, the record sent to the Director, and the final decision to issue or deny an operating permit made. All individuals submitting oral or written comments are informed of the decision (HWMR-5, as amended 1989, Part IX, section 902.A.). **Permit modification:** None.

38. **Comment:** Several people (pp. 88, 149, 257, 340) asked who had reviewed the permit application. **Response:** The principle reviewer was Mr. C. Kelley Crossman for the EID. He had a BS degree in chemistry and MS degree in education. He has been with the EID for 6 1/2 years and he has since left for a new position. The review was continued by Dr. A. Elizabeth Gordon who has a MS and PhD in Entomology. She has had course work in pollution ecology, population ecology and extensive field work. The materials were made available to the Air Quality Bureau and the Surface Water Bureau for their review in areas of their concern, but no formal review and response were required. The materials were also at EPA Region VI where the incinerator materials were reviewed by their staff. **Permit modification:** None.

39. **Comment:** EID was asked (pp. 193; one letter) as to how it planned to address the mixed waste issue. **Response:** When the EID is prepared to address the mixed waste permitting requirements for LANL, a decision will be made whether to write a separate permit or to modify the present permit to include mixed wastes. Under either method, the public will be invited to comment on the application and the proposed decision concerning the mixed waste, just as is occurring under this permitting process. This is not expected to occur until 1991. Also, see #3 above. **Permit modification:** None.

40. **Comment:** There were a couple of inquiries (pp. 202, 318) as to how the operating permit and the cleanup of past activities were related. In the Hazardous and Solid Waste Amendments of 1984 (HSWA), Congress required all facilities to clean up any past solid waste management units. The state is not yet authorized for that part of the HSWA program, so EPA is presently implementing it. The cleanup process EPA is requiring of LANL is covered in Permit Module VIII. **Permit modification:** None.

Oversight

41. **Comment:** Numerous people (pp. 52, 166, 190) inquired as to who oversees LANL and DOE. **Response:** LANL is subject to oversight by the EID, EPA and DOE inspectors. The EPA and EID inspections are known to LANL only a few days in advance; in some cases with no advance notice. **Permit modification:** None required.

42. **Comment:** Many people (pp. 66, 162, 183, 5 letters) indicated distrust DOE. **Response:** All materials submitted by LANL are required to be certified as accurate and correct (HWMR-5, Part IX, 40 CFR section 270.11(d)). If at any time, the EID receives information that such certification is false, the permit may be modified, terminated or rescinded (HWMR-5, Part IX, 40 CFR section 270.41, 270.42 and 270.43(a)(2)). The EID is aware of the DOE record at other facilities and carefully evaluates all DOE inputs. **Permit modification:** None .

43. **Comment:** Several inquiries (pp. 140, 166, 290, 336, 4 letters) were made regarding EID's inspection frequency and practice for LANL. **Response:** The EID has historically visited each major facility, such as LANL, annually. LANL has also been inspected on an unannounced followup basis. Normally, LANL has been notified a few days in advance so that appropriate arrangements for access to secure areas may be made to minimize delay during the inspection. Both EPA and EID have inspectors with DOE security clearances to facilitate access. **Permit modification:** None.

Miscellaneous

44. **Comment:** Twelve commentors urged to EID to deny the permit, without providing any reason for such a suggestion. **Response:** Regulatory agencies do not have the authority to deny permits for non-technical reasons. (Hazardous Waste Incinerators: Questions and Answers, EPA 530-SW-88-018, p.22). **Permit modification:** None.

45. **Comment:** Several people (pp. 13, 74, 88-178) objected to the hearing procedure which did not require LANL to defend its application. **Response:** According to the New Mexico Hazardous

Waste Act, Section 74-4-4.2.E. NMSA 1978 and the New Mexico Hazardous Waste Management Regulations (HWMR-5), as amended 1989, Part IX, section 902.A.5., "No ruling shall be made on permit issuance... without an opportunity for a public hearing at which all interested persons shall be given a reasonable chance to submit data, views, or arguments orally or in writing and to examine witness testifying at the hearing..." The purpose of the hearing was to subject EID's proposed decision to public scrutiny and comment. There are no legal grounds for compelling any person/facility to testify and, consequently, be subject to cross examination. **Permit modification: None.**

46. **Comment:** A comment (p. 218) was made on the availability of the permit materials. **Response:** The volume of materials included in the permitting file exceeded the EID budget for production and distribution. The most pertinent documents were placed in the Los Alamos public library for one year and then moved to the Espanola library for the last two years. The complete EID file is in the Santa Fe office and is available for public review. **Permit modification: None.**

47. **Comment:** Several people (p. 9) asked that the hearing record be kept open to allow rebuttal to the comments to be submitted by LANL at the hearing. **Response:** The hearing officer kept the record open for five weeks after the close of the hearing. One person commented on LANL's submission. **Permit modification: None.**

48. **Comment:** There were inquiries (pp. 196, 317) as to the qualifications of the EIB. **Response:** The EIB is appointed by the Governor to promulgate regulations and such other tasks as are assigned by law. (Environmental Improvement Act, Section 74-1-8., NMSA 1978). According to the Environmental Improvement Act, the EIB members are appointed by the Governor, by and with the consent of the Senate and no more than three members shall be members of the same political party (Environmental Improvement Act, Section 74-1-4. NMSA 1978). **Permit modification: None.**

49. **Comment:** A few comments (p. 299) were received on the adequacy of the tanks described in the permit. **Response:** There are two sets of tanks described in the permit. One is a sealed reaction tank (Permit Module IV) and the other is a group of four open tanks used to evaporate, hydrolyze and mix wastes (Permit Modules IV and VI). Both are placed on a base designated to contain their contents if a leak occurs. The sealed reaction tank is in a building with controlled access and the four open tanks (Permit Modules IV and VI) are within a fenced area with controlled access. **Permit modification: None.**

50. **Comments:** Several people (pp. 305, 4 letters) inquired about recycling requirements and waste minimization. **Response:** The permit does not require recycling or waste minimization,

except to require a report on what was accomplished in these areas. The federal Resource Conservation and Recovery Act, Section 3005(h) specifies that it is the responsibility and the duty of the facility to implement these programs. **Permit modification:** None.

Comments from EID

51. **Comment:** The draft permit paragraphs I.A.(in part), II.A.3. and II.A.4. were conditions regarding the generation of waste. **Response:** After reviewing HWMR-5, Part IX, 40 CFR section 270.4.(a), it was concluded that conditions regarding generation are not subject to a permit, but to the requirements in HWMR-5, Part III generator standards. **Permit modification:** Permit paragraph I.A. was modified to reflect this and paragraphs III.A.3. and III.A.4. were deleted.

52. **Comment:** Review of draft permit paragraph II.E.2. raised questions that the sampling in the Mortendad Canyon for possible contamination needed to be increased for number of sites, that metals should be added to the data base and that the frequency of sampling should be increased. **Response and Permit modification:** Permit paragraph II.E.2.a. was rewritten to require reporting of all results, not just detected constituents and Tables II-2 and II-3 were modified. Additionally, Figure 9 was added to assist in identifying monitoring locations.

53. **Comment:** Review of Permit Modules III and IV revealed that the land ban requirements regarding storage in containers and tanks had not been included. **Response and Permit modification:** The land ban requirements for container storage were added as permit paragraph III.B.3. and for storage in tanks as permit paragraph IV.B.5.

Comments from EPA, Region VI

54. **Comment:** The secondary containment surrounding the existing tanks should be described in the permit. **Response and Permit modification:** This was done by additions to permit paragraphs IV.C.1. and 2. and by the addition of Figure 7 to the permit.

55. **Comment:** Clarification of the methods of determining the chlorine and heat content for wastes to be incinerated is required. **Response and Permit modification:** Permit paragraphs V.C.1. and V.F.1. were revised.

56. **Comment:** Add tolerances for measured parameters to reflect actual instrument accuracy. **Response and Permit modification:** Permit paragraphs V.F.6.b. and V.F.7.c. were revised to indicate a tolerance limit of plus or minus 3%.

57. **Comment:** The incinerator operating parameters should be

recorded and continuously monitored. **Response:** This requirement is specified in permit paragraph V.E. and the records are retained pursuant to paragraph V.I. **Permit modification:** None.

Comments from Los Alamos National Laboratory

58. **Comment:** The monitoring requirements of paragraph II.E.2.a. are redundant with Module VIII. **Response:** The specific sites to be monitored are not redundant, both are necessary. **Permit modification:** Permit paragraph II.E.2.f. was added to address the dry well situation so that all attempts to obtain water samples that are not successful are documented.

59. **Comment:** Requested that permit paragraph IV.D.1.c. be modified to address some discharges to the industrial wastewater system. **Response and Permit modification:** Permit paragraph IV.D.1.c. was redesignated IV.D.1.d. and rewritten to specifically authorize some discharges to the industrial wastewater system, i.e. for treatment residues that qualify for exclusion in accordance with Permit Attachment A.

60. **Comment:** LANL objected to permit paragraph VII.A.2. as constituting double jeopardy under the law. **Response:** This paragraph makes it explicit that all applicable state standards shall apply to this incinerator. The EID has the authority to enforce, but does not know at this time if it would enforce violations under this permit or any air permit or both. **Permit modification:** None.

61. **Comment:** LANL objected to the verification provisions of Permit Attachment A, paragraph A.5. **Response:** This paragraph was made more explicit to apply to instances where generators state knowledge of process as the analysis method. **Permit modification:** The requirement was increased to 1% verification analyses by chemical means.

62. **Comment:** LANL proposed that only hazardous waste handlers receive training on the requirements of RCRA. **Response:** The EID believes that every employee and regularly assigned contractor employee should receive basic training to recognize sufficiently what materials are subject to the permit and to be aware of the need to notify the proper specialists to handle the wastes. **Permit modification:** None.

63. **Comment:** LANL proposed numerous corrections to the figures in the permit to reflect the current locations and units subject to the permit. **Response and Permit modification:** The EID concurred that the most current figures should be used and replaced the outdated figures.

64. **Comment:** In reviewing the record of the permit hearing, LANL discovered, after the close of the public comment period,

that Exhibit No. 3 (Contingency Plan) in DOE's comments submitted to the EID during the hearing contained a copying error (double-sided document copied as a single-sided document) and requested that the minor changes to the Contingency Plan be considered. **Response:** The changes were found to be clerical in nature. **Permit modification:** The updated document was incorporated as the contingency plan.

65. Additionally, DOE provided, by letter dated August 24, 1989, a summary of the jurisdictions concerning radioactive materials at LANL. This summary, entitled "Answers to Questions Regarding the Department of Energy's Regulation of Radioactive Wastes," is enclosed for your information. EID has not investigated the answers as stated and does not vouch for their accuracy.

This concludes the responses to comments required by HWMR-5, Part IX, section 902.A.

Attachments

1. EID July 18, 1989 Statement Responding to Particular Concerns Expressed by Members of the Public Regarding the LANL Mixed Waste Incinerator.
2. Letter of September 14, 1989 to Dr. Mack C. Sewell, Chief, Epidemiology Branch, HED from Dr. Kirkland E. Jones, Deputy Director, EID.
3. Letter of September 22, 1989 to Dr. Kirkland E. Jones, Deputy Director, EID from Dr. Mack C. Sewell, Chief, Epidemiology Branch, HED.
4. Letter of September 28, 1989 to Mr. Troy E. Wade II, Acting Assistant Secretary for Defense Programs from Dr. Kirkland E. Jones, Deputy Director, EID.
5. HWMR-5, as amended 1989, Part IX, sections 902.F (Director's Decision) and 902.G. (Review and Hearing Before Board).
6. DOE's "Answer to Questions Regarding the Department of Energy's Regulation of Radioactive Wastes."
7. House Bill 59, as amended. 39th Legislature, first session 1989.

EID JULY 18, 1989 STATEMENT RESPONDING TO PARTICULAR CONCERNS
EXPRESSED BY MEMBERS OF THE PUBLIC REGARDING THE LANL MIXED WASTE
INCINERATOR

EID has received many comments from the public concerning this draft permit. Regrettably, the laws and regulations that govern a facility as large as LANL are very complex. Several of the comments received by EID reflect that complexity. As important, the comments reflect concerns some members of the public have regarding operation of the mixed waste incinerator. In order to better inform the public of the applicable laws and regulations and to better address the public's concerns, EID has developed a statement to explain what this draft permit can and cannot do regarding the mixed waste incinerator.

THIS DRAFT PERMIT CAN ONLY REGULATE CHEMICAL WASTE
IT CANNOT REGULATE RADIOACTIVE WASTE

The federal Atomic Energy Act of 1954 (AEA), authorized the United States Department of Energy ("DOE") to develop and effectuate its own regulations controlling DOE's management of its own radioactive wastes. Other statutes may impose additional requirements on radioactive material handling. This permit action is under the State Hazardous Waste Act. The State Hazardous Waste Act does not regulate radioactive waste in any way. The Hazardous Waste Act only applies to wastes that meet the legal definition of "hazardous waste," and these are basically chemical wastes. The Hazardous Waste Act cannot be applied to source, special nuclear or byproduct radioactive wastes. Thus, EID does not have the authority through its Hazardous Waste Program, and through this or any other hazardous waste management permit, to regulate radioactive waste. This draft permit is a permit that only regulates chemical hazardous waste. It does not and can not regulate radioactive waste.

"MIXED WASTE" REGULATION

When a waste has both chemical and radioactive components, it is called a "mixed waste." Because of the chemical component of mixed waste, the Hazardous Waste Act does apply to mixed waste. It only applies to the chemical part of mixed waste, however. The Hazardous Waste Act does not apply to the radioactive part. DOE regulates the radioactive part, pursuant to the Atomic Energy Act.

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STATE AUTHORITY TO ENFORCE THE FEDERAL STATUTE, RCRA

This draft permit is a hazardous waste management permit administered by EID's Hazardous Waste Bureau. EID's legal authority to issue this permit under State law is the Hazardous Waste Act. Ultimately, however, EID's legal authority to issue this permit comes from the federal hazardous waste management statute, named the Resource Conservation and Recovery Act ("RCRA"). Under RCRA, the federal government, through the United States Environmental Protection Agency ("EPA"), gives specific authorizations to a state to enforce certain parts of RCRA. The state then enforces those parts of RCRA in the state instead of EPA.

New Mexico is an "authorized state," that is, New Mexico is authorized by EPA to enforce certain parts of RCRA in New Mexico instead of EPA. This draft permit is a RCRA permit, prepared by EID's Hazardous Waste Program staff to address only those specific parts of RCRA that EPA has authorized New Mexico to enforce. Because Congress has added requirements to RCRA in stages through amendments, EPA is requiring states to submit their requests for authorization in stages. Thus, New Mexico is authorized by EPA to enforce some RCRA provisions, but not other RCRA provisions.

NEW MEXICO DOES NOT HAVE RCRA AUTHORIZATION TO REGULATE THE CHEMICAL PART OF MIXED WASTE

New Mexico is not yet authorized by EPA to regulated the chemical part of mixed waste through its RCRA hazardous waste management program. New Mexico is in the process of applying to EPA for authorization, however.

THIS DRAFT PERMIT IS A RCRA PERMIT

Because New Mexico is not authorized by EPA to regulated the chemical part of mixed waste through its RCRA program, this draft RCRA permit does not authorize LANL to incinerate the chemical part of mixed waste. This draft permit only authorizes the incineration of purely chemical waste in the incinerator.

In order to get a RCRA permit to incinerate mixed waste, LANL will need to develop a mixed waste permit application, and submit it to EID. EID expects LANL to submit this application in the late fall of 1989. The EID Hazardous Waste Program staff will review the

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application. After EID has been authorized by EPA to regulate the chemical part of mixed waste under the RCRA hazardous waste program, EID will draft a proposed RCRA permit based on the LANL application, and submit it to the public for public comment, just as this draft permit has been submitted to the public for public comment.

RCRA "INTERIM STATUS"

"Interim status" gives temporary authorization to certain facilities to continue their hazardous waste management activities until their applications for final permits can be acted on. RCRA gave this interim status to facilities that were in existence on a certain date and which complied with certain notification requirements. Operations under interim status are regulated by regulations designed for this interim status.

THE LANL INCINERATOR HAS RCRA "INTERIM STATUS"

The LANL incinerator has RCRA "interim status" and is thus authorized to burn chemical waste without a final hazardous waste RCRA permit. This is true for both purely chemical waste and for mixed waste. The temporary permission to burn purely chemical waste will end when EID takes final action on this draft RCRA permit. Then, burning of purely chemical waste will be allowed only pursuant to the permit. The temporary permission to burn the chemical part of mixed waste will end when EID takes final action on a RCRA permit addressing that waste, which EID will not do until after EPA authorizes EID to do so. Then, burning of the chemical part of mixed waste will be allowed only pursuant to that permit.

SUMMARY

Thus, this draft permit does not authorize LANL to incinerate mixed waste, that is, chemically hazardous waste that is mixed with radioactive waste. The draft permit only proposes to authorize the incineration of strictly chemical hazardous waste, and then only under the permit's specified conditions. EID will at a later date propose a draft hazardous waste permit to regulate the incineration of the chemical part of mixed waste. No RCRA hazardous waste permit can regulate radioactive waste.

INTERIM STATUS FACILITIES

EID has two sources of authority under the Hazardous Waste Act. First, EID is authorized to enforce whatever portions of RCRA that EPA has expressly authorized the State to enforce. Second, EID is authorized to enforce all provisions of the Hazardous Waste Act, even if some particular provision has not yet been approved by EPA as part of RCRA authorization. In this second case, EID is acting on solely state authority; it is not acting pursuant to its federal RCRA authority. EID has used this state authority in the past, to deny LANL's request to begin construction of a new mixed waste incinerator until after review and approval of the construction phase.

Interim Status Regulations

Under the Hazardous Waste Act, the incinerator, in so far as it burns mixed waste, has "interim status." It has interim status under both the State's federal RCRA program, and the independent state authority. That means that it has a temporary permit to operate until a final permit, such as this one presently under consideration for purely chemical waste, is considered. In the interim, it is regulated under the regulations designed for the interim period, and not under the regulations designed for final permits.

There are no specific regulations applicable to interim status under either state or federal law addressing the chemical part of mixed waste. EPA intends at this time to regulate all chemical wastes under the same set of regulations.

EID's Hazardous Waste Bureau did not develop any interim regulations independent of those required for the federal RCRA program. EID did not develop interim regulations specifically governing the chemical part of mixed waste under its state authority for several reasons. First, the Hazardous Waste Act prohibits the State from regulating hazardous waste more strictly than RCRA does. EID could not develop regulations covering the chemical part of mixed waste until RCRA covered the chemical part of mixed waste. EPA did not clearly add the chemical part of mixed waste to its RCRA program until July 3, 1986. EID could not have begun the process of promulgating such regulations until after that date.

Second, the process of promulgating regulations is very resource intensive, and EID's Hazardous Waste Program has extremely limited resources. EPA funds 75% of the program and requires that those

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monies go only into RCRA-related activities. The remaining 25% is paid out of state monies that are the State's required "match" for getting the EPA grant monies. Thus, the Hazardous Waste Program's budget is restricted to federally-authorized RCRA activities. The program has developed other, extensive regulatory, and statutory, changes in the interim in order to maintain current, and seek new, RCRA authorization. In addition to regulation development, the program must meet inspection, enforcement, and permit commitments to EPA for purposes of maintaining RCRA authorization. There simply have not been enough resources to do everything that EID would like to do, and it chose not to develop interim regulations applying to the chemical part of mixed waste. An important goal of RCRA and the Hazardous Waste Act is to get facilities operating pursuant to permits instead of under interim status. Therefore, developing regulations governing interim status facilities uses the Hazardous Waste Bureau's limited resources less well than developing regulations applying to final permits.

Final Permit Regulations

EPA has indicated that it does not intend to promulgate any final permit regulations specific to the chemical part of mixed waste. EPA has apparently determined that the present regulations governing permits are sufficient to protect the public health and the environment from the chemical part of mixed waste. The State has adopted these regulations.

Thus, EPA will not require EID to develop any additional regulations governing permits specific to the chemical part of mixed waste in order for EID to get and maintain RCRA authorization for the chemical part of mixed waste.

EID is authorized by the Hazardous Waste Act to develop additional regulations applicable to permits dealing with the chemical part of mixed waste. However, under the Hazardous Waste Act prohibition, such regulations could not be stricter than whatever RCRA requires through permits dealing with the chemical part of mixed waste. EID is not presently considering developing any such regulations, but welcomes the public's input on whether EID should.

AIR QUALITY REGULATIONS

Some members of the public have expressed their concern that State or federal air quality requirements may not adequately regulate the incineration of the radioactive part of mixed waste. As previously stated, this draft RCRA permit does not cover any mixed waste

incineration; it is limited to purely chemical waste incineration. Further, no RCRA permit could regulate the radioactive part of mixed waste. The incinerator has interim status that allows it to operate without a final RCRA permit. Operation of the incinerator must also comply with any other applicable laws and regulations, however. Thus, the incinerator will not be allowed to operate if it has failed to satisfy the legal requirements of other relevant state and/or federal programs.

Regarding Air Quality Regulation

EID's Air Quality Bureau reviewed the operation of this incinerator in 1988 and determined that a state air quality permit is not required, because the predicted emissions were below thresholds that require a permit. Under new State toxic air pollutant requirements, effective December, 31, 1988, this incinerator is an "existing source" and therefore is not subject to the new air regulations. Data concerning the incinerator are being collected, however.

EID has the authority under the State Air Quality Control Act to regulate the radioactive emissions from this incinerator, but does not have any implementing regulations to do so at this time. EPA enforces other air quality programs in the State. The radionuclide emissions from this incinerator have been reviewed by EPA Region VI for compliance with the regulations that govern (40 CFR Part 61, Subpart H) radionuclide emissions from DOE facilities, under the federal Clean Air Act. EPA reviewed the emissions from the existing incinerator in November 1988, as part of reviewing LANL's application for a new proposed mixed waste incinerator.

EID expects to develop new air quality regulations for incineration, that will include radionuclide emission limits at the stack as opposed to the fence line. Under EID's current schedule for the development of such regulations, a public hearing on the proposed regulations is expected next spring. In the interim, the Air Quality Bureau will be developing and taking to hearing regulations governing municipal and medical waste incineration.