

Post Office Box 510
South Royalton, VT 05068-0510
(802) 763-2624

April 22, 1996

Ms. Barbara Hoditschek
RCRA Permits Program Manager
NMED Hazardous and Radioactive Materials Bureau
POB 26110
Santa Fe, NM 87502

Re: LANL's Controlled Air Incinerator
Comments on Hazardous Waste Facility Class II Permit Modification

Dear Ms. Hoditschek:

I am very concerned that the intention behind Los Alamos National Laboratory (LANL)'s request to the New Mexico Environment Department to grant a modification of the Controlled Air Incinerator (CAI) permit is to obtain a current permit and operate the CAI. I am particularly concerned that LANL will bring the CAI on-line and **not** take the facility off-line until DOE's transuranic waste incineration needs are met. This is completely unacceptable because (1) that is not the perception the public has of this "permit/closure" process; (2) that there are inherent dangers to the public and surrounding environment if the CAI is put into operation for the purposes of incinerating TRUW mixed wastes; and (3) LANL's inability to meet existing federal Clean Air Act standards (reference: recent lawsuit brought by citizens' groups).

I draw your attention to the Department of Energy's Draft Waste Management Programmatic Environmental Impact Statement (WM DPEIS) written in August, 1995. Chapter 8 of the WM DPEIS is devoted to Impacts of the Management of Transuranic Waste. On page 8-7, there is a table entitled, "Table 8.1-2. Capacities of Existing and Planned TRUW Facilities." In that table, under "Site," LANL is listed. Under the "Facility", the Controlled Air Incinerator" is listed. It is listed as incineration for the "Type" of Facility. The CAI is listed as having a "Capacity" of burning 680 cubic meters per year, and there is a reference to "Footnote c." "Footnote c" states:

"A recent site report now estimates the capacity at 1,000 - 2,500 cubic meters per year, but states that the Controlled Air Incinerator project is on **standby** and DOE is exploring RCRA closure. The increase in estimated capacity will have no effect on impacts. The previous estimated capacity exceeded the projected requirements; operational impacts would remain the same." [emphasis added.]

Under "Capabilities/Comments" for the CAI, it further states: "RCRA permit lapsed, TSCA permit in place; LANL sitewide Environmental Impact Statement in progress."

In addition, on page 8-5 of the WM DPEIS, in Section 8.1.3 "Existing and Planned Facilities Available at DOE Sites:"

"To establish the baseline capacities for TRUW treatment and identify the need for new or expanded facilities, DOE compiled a list of existing and planned TRUW facilities. Total capacities of these identified facilities are presented in Table 8.1-2 [described in the above paragraph of this letter]. Some facilities that are not



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currently operating were considered to be in existence for the analysis, based on the assumption that **they could become operational if required.** [emphasis added.]

"Analysis in the PEIS assumes use of existing and planned facilities until their capacities are met." [emphasis added.]

Under Section 8.2.1.1 "Physical/Chemical Characteristics" of the waste on page 8-8, DOE states:

"For the purposes of analysis, DOE analyzed all TRUW as mixed waste (containing both radioactive and hazardous components) because detailed knowledge of the constituents of 'non-mixed' TRUW was not available."

I have enclosed a copies of the described pages from the WM DPEIS for your review, although I have marked on them.

Again, I am very concerned that once the "first" part of the CAI permit is granted by the NMED, that DOE/LANL will forge ahead with the plan to incinerate transuranic waste pursuant to its plan described in the WM PEIS. I am hopeful that this is not the first time that your attention has been drawn to the WM PEIS with respect to the CAI. The purpose of the WM PEIS was to "evaluate management and siting alternatives for the treatment, storage and/or disposal of five types of radioactive and/or hazardous wastes." ["Dear Citizen" letter on cover page of the Summary of the WM PEIS] of DOE's waste for the next 20 years.

Assumptions were made in the WM DPEIS that relate to LANL's CAI. I want to make sure the NMED takes these assumptions into full consideration when deciding the future of the CAI. In reality, the NMED should make the modification permit tied to the closure permit. The permit for modification should be for a short amount of time for the modifications **ONLY**. The current public perception that the CAI permit is two separate processes may allow LANL to begin operation of the CAI to meet the WM DPEIS mandates and assumptions under the cloak of a current permit.

I am also concerned that your notice states that you will only consider comments that you receive prior to April 22, 1996. Previously, the procedure has been that as long as the comments were postmarked by a certain date that they would be accepted. It seems difficult to determine when one would have to put a letter into the U.S. Postal System for it to arrive by a certain date. Is this is a way to keep the comment period open for the statutory amount of time, but in reality to shorten it? What are the reasons for this unprecedented shift in setting deadlines? It seems the needs of the public have been ignored with this new method. The uncertainty as to the "deadline" inhibits meaningful public participation.

NMED is required to proceed cautiously in the realm of the CAI. (1) The public perception is that the permit is two separate processes, the modification permit and the closure permit. NMED needs to make sure DOE/LANL does not slip in the operation of the CAI for the incineration of TRUW mixed waste in between these two processes. (2) There are inherent dangers to the public and surrounding environment if the CAI is put into operation for the purposes of incinerating TRUW mixed wastes. Proof is found in the recent decision of the federal District Court of LANL's inability to meet existing federal Clean Air Act standards.

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Thank you for your time in reading and assessing my comments on the CAI. This is a very important issue and, please, NMED proceed cautiously.

Very truly yours,

A handwritten signature in cursive script that reads "Joni Arends".

Joni Arends

Enclosures

Table 8.1-2. Capacities of Existing and Planned TRUW Facilities

Site	Facility	Type	Capacity (m ³ /yr)	Capabilities/Comments
Hanford	Transuranic Storage and Assay Facility	Storage	a	
	Waste Receiving and Processing Facility, Module *	Pretreatment	1,400	Characterization, sorting, and limited repackaging capacity
INEL	Stored Waste Examination Pilot Plant	Pretreatment	1,000	Nondestructive assay/examination and <u>drum venting</u>
	Waste Characterization Facility*	Pretreatment	200	Characterization and limited repackaging capacity; currently in detailed design stage
	Transuranic Storage Area Retrieval Enclosure*	Pretreatment	2,100	Manual and remote retrieval of waste stored in <u>(earthen berms)</u> <u>under construction</u>
	Waste Storage Facilities*	Storage	20,000	Pre-engineered metal buildings for RCRA compliant storage; <u>under construction</u>
LANL	Waste Characterization; Reduction and Repackaging	Pretreatment	b	Waste volume reduction
	Pretreatment Plant	Pretreatment	200	Filtration, neutralization, precipitation, sorption (fixation)
	Controlled Air Incinerator	<u>Incineration</u>	680 ^c	RCRA permit lapsed, TSCA permit in place; LANL sitewide Environmental Impact Statement in progress
	Plutonium Facility Solidification	Solidification	7.7	Portland cement stabilization
	Transuranic Storage Area Retrieval Enclosure*	Retrieval	1,500	Not applicable to WM PEIS analysis <i>why?</i>
ORR	Waste Examination and Assay Facility	Pretreatment	a	Nondestructive examination/assay
	Melton Valley Immobilization Facility	Stabilization	189	Cement stabilization
RFETS	Supercompaction and Repackaging Facility	Pretreatment	949	Compaction
	Advanced Size Reduction Facility	Pretreatment	1,819	Size reduction
	Size Reduction Vault	Pretreatment	1,864	Size reduction
	Process Waste Treatment Facility	Aqueous waste treatment	149,000	Deactivation, decontamination, evaporation, immobilization, and solidification
	Organic and <u>Sludge</u> Immobilization System	Stabilization	497	Concentration
SRS	Low Activity TRUW Facility Retrieval*	Pretreatment	a →	Scheduled to begin operations in 1996
	Transuranic Waste Facility Phase 1, Low Activity TRUW Facility*	Pretreatment	200	Sorting, characterizing, and repackaging

* Indicates planned capacity.

Notes: RCRA = Resource Conservation and Recovery Act; TSCA = Toxic Substances Control Act. All sites are assumed to have the capability to package and store future TRUW generations.

Source: M/B 1995b.

^a Facility identified but no capacity identified.

^b Facility identified as the Nondestructive Evaluation/Nondestructive Assay Facility but no capacity identified.

^c A recent site report now estimates the capacity at 1,000-2,500 cubic meters per year. but states that the Controlled Air Incinerator project is on standby and DOE is exploring RCRA closure. The increase in estimated capacity will have no effect on impacts. The previous estimated capacity exceeded the projected requirements; operational impacts would remain the same.

greater proportion of radionuclides that produce highly penetrating radiation (gamma radiation) and thus must receive special shielding in treatment, storage, and disposal facilities.

The current total inventory plus the 20-year projected generation of TRUW analyzed in the WM PEIS is approximately 110,000 cubic meters. The largest volumes of TRUW are located at 10 sites, with 95% of the waste located at six of these sites: the Hanford Site, INEL, LANL, ORR, RFETS, and SRS. Figure 8.1-1 presents the total TRUW volumes at the major sites.

8.1.3 EXISTING AND PLANNED FACILITIES AVAILABLE AT DOE SITES

To establish the baseline capacities for TRUW treatment and identify the need for new or expanded facilities, DOE compiled a list of existing and planned TRUW facilities. Total capacities of these identified facilities are presented in Table 8.1-2. Some facilities that are not currently operating were considered to be in existence for the analysis, based on the assumption that they could become operational if required. Planned facilities include only those facilities for which a conceptual design has been completed.

Analysis in the PEIS assumes use of existing and planned facilities until their capacities are met. If additional capacity is needed, use of new conceptual facilities is assumed. These conceptual facilities provide the difference in TSD capacity between the baseline reported in Table 6.1-2 and what is necessary to manage the source term which a given site would receive under any given alternative. Conceptual facilities are based on generic designs with set impacts (e.g., cost, performance/efficiency). Where necessary for analysis, an assumption was made that the impact of existing facilities essentially reflects the impact of conceptual facilities.

Seven sites are listed that have either existing or planned treatment facilities: ANL-E, the Hanford Site, INEL, LANL, ORR, RFETS, and SRS (see Table 8.1-2). These facilities are each capable of performing different aspects of treatment, including characterization, sorting, volume reduction, filtration, and cement stabilization. DOE also assumed that the basic capabilities to package and store TRUW are available at every site that would generate TRUW in the future. This includes 11 sites projected to generate CH TRUW and 5 sites with projected RH TRUW, as shown in Table 8.1-1.

8.2 Analytical Methods and Assumptions

To evaluate the TRUW alternatives, DOE first examined total waste volumes and the capability of existing or planned facilities. DOE then identified the chemical and radiological characteristics of TRUW in order to evaluate the effects of treatment. The specific TRUW ^{low} assumptions used in the analysis relating to facilities, treatment technologies, and transportation are discussed below.

8.2.1 CHARACTERISTICS

TRUW ASSUMPTIONS

8.2.1.1 Physical/Chemical

Although TRUW contains hundreds of waste streams, these streams can be grouped by physical and chemical properties into a limited number of waste treatment categories. In doing this, DOE was able to analyze a relatively broad range of TRUW by applying appropriate technologies dictated by the common physical and chemical treatment categories. Similar to Low-Level Mixed Waste (LLMW), the WM PEIS analysis of TRUW evaluated five treatment categories (or groupings): aqueous liquids, solid process residues, soils, organic liquids, and debris.

For the purpose of analysis, DOE analyzed all TRUW as mixed waste (containing both radioactive and hazardous components) because detailed knowledge of the constituents of "non-mixed" TRUW was not available. Analyzing all TRUW as if it were mixed waste provided conservative estimates for risk, environmental impacts, and cost.

DOE estimated the hazardous chemical constituents in TRUW based on the TRUW present at RFETS, which has the most detailed process knowledge information on hazardous constituents available in the DOE system.

8.2.1.2 Radiological Profiles

Radionuclide concentrations for the 10 largest generators of TRUW were obtained from process knowledge, supplemented by limited sampling and analysis of stored TRUW. Smaller generators were

should be for a short amount of time for the modifications **ONLY**."

Response: The perception that there are separate "modification permits" and "closure permits" is not quite correct, and seems to be an unnecessary point of concern. The CAI is included in LANL's overall RCRA Facility Operating Permit. The proposed modifications are not in fact a separate permit, but are simply changes to parts of the Permit specific to the CAI. Also, it is Attachment E.4 of the Operating Permit, and not a separate permit, that deals with closure of the unit, and LANL's proposed changes to that specific attachment is what NMED will **next** be public noticing for public participation. Both of these actions are with the intent of preparing for RCRA closure of the CAI.

Item 3c: "The current public perception that the CAI permit is two separate processes may allow LANL to begin operation of the CAI to meet the WM DPEIS mandates and assumptions under the cloak of a current permit."

Response: Once again, HRMB will strive to communicate permit activities to the public in a readily comprehensible form. However, even if that effort should not always be entirely successful, RCRA regulations are explicit to the extent of preventing **ANY** facility from manipulating public perception to the extent described.

Item 4a: "I am also concerned that your notice states that you will only consider comments that you receive prior to April 22, 1996."

Response: Actually the last sentence of paragraph 6 (six) of Public Notice No. 83 reads; "Only comments and/or requests received **by** (emphasis added) April 22, 1996, will be considered."

Item 4b: "Previously, the procedure has been that as long as the comments were postmarked by a certain date that they would be accepted."

Response - Public Notice No. 83 was written with previous Notices as a template. Several examples of previous notices with such wording can be provided upon request. However, it appears that within HRMB individual interpretation of the requirement has not been entirely consistent. Thank you for pointing this out; it will be clarified internally as soon as possible.

Item 4c: "It seems difficult to determine when one would have to put a letter into the U.S. Postal System for it to arrive by a certain date."