

NMED REPLY TO PUBLIC COMMENTS RECEIVED ON THE U.S. DEPARTMENT OF ENERGY/LOS ALAMOS NATIONAL LABORATORY RESEARCH, DEVELOPMENT AND DEMONSTRATION PACKED-BED REACTOR/SILENT DISCHARGE PLASMA UNIT DRAFT PERMIT

Comment Period Ran from November 29, 1993 to January 14, 1994.

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Response to Public comments on the draft Research, Development and Demonstration (RD&D) Packed-Bed Reactor/ Silent Discharge Plasma (PBR/SDP) Hazardous Waste Permit for the Department of Energy/Los Alamos National Laboratory (DOE/LANL).

PUBLIC COMMENTS:

Comment 1

"Before approval may be given, the DOE must produce a full environmental impact statement...."

HRMB Response:

Environmental Impact Statements (EIS) are a requirement of the National Environmental Policy Act (NEPA). Getting a permit is not subject to NEPA. DOE/LANL produces EISs under NEPA for the whole LANL environment which includes the subject PBR/SDP unit. DOE/LANL plans to continue to produce EISs for the entire LANL area as opposed to the current pilot-scale RD&D experiment.

Comment 2

"Before approval may be given, the DOE must produce a full impact statement and hold a public hearing to receive and to respond to public concerns."

HRMB Response:

NMED has decided not to hold a public hearing since the commenter withdrew her request for a public hearing. That request followed a public meeting that was held on March 11, 1994. The purpose of the public meeting was an attempt to resolve the issues regarding the subject draft Permits by giving the commenter a chance to express her concerns to DOE/LANL, and NMED in accordance with New Mexico Hazardous Waste Management Regulations (HWMR-7), Section 902, paragraph A.4.

The public meeting lasted two hours (from 9:30 am to 11:30 am). This included two presentations by DOE/LANL researchers on the planned PBR/SDP and Hydrothermal Processing experiments. After asking several questions and receiving answers to those questions by the researchers, the commenter said that she was impressed with the presentations and answers to her questions and the purpose of the said experiments. She added that she was withdrawing her request for a public hearing. The commenter was then asked by the HRMB Facilitator of the meeting to put down in writing, and submit to HRMB, her decision to withdraw her request for a public hearing. The public commenter agreed to write HRMB a letter to that effect.

An excerpt from the commenter's letter to HRMB, which was received on March 15, 1994 reads as follows:

"The meeting this morning at which representatives from Los Alamos Labs, Department of Energy and the NMED has answered my concerns regarding the one year permits requested for the two RD&D projects we discussed. I withdraw my request for a public hearing on the matter."

Comment 3

"I believe that research with such a unit is long overdue.... I therefore strongly support the issuance of a permit for this experiment."

HRMB Response:

NMED appreciates the commenter's contribution in effort and the time taken to review the PBR/SDP draft permit.

COMMENTS FROM U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA):

Comment 4

1. "Upon completion of this Research, Development and Demonstration (RD&D) project should Los Alamos National Laboratory decide to permit a permanent PBR/SDP unit it will need to be permitted as an incinerator under 40 CFR 264 Subpart O and should also meet the requirements of EPA's Combustion Strategy.
2. In addition, the permit regulatory limits in Subpart O need to include, but are not limited to the following items:
 - a. What parameters need to be measured to ensure that the waste feed cuts off if the unit is not operating within specifications?
 - b. The amount and type of anticipated emissions need to be defined. How will LANL know when complete combustion has occurred. These parameters need to be defined".

HRMB Response to #1.:

NMED supports EPA's comment 1., and will add the above suggestion, verbatim, to Module I as Permit Condition I.B.3.

- I.B.3. Upon completion of this Research, Development and Demonstration (RD&D) project should Los Alamos National Laboratory decide to permit a permanent PBR/SDP unit it

will need to be permitted as an incinerator under 40 CFR 264 Subpart O and should also meet the requirements of EPA's Combustion Strategy.

HRMB Response to #2a and 2b.:

The New Mexico Environment Department (NMED) agrees with EPA's suggestion regarding the incinerator. However, as for the current RD&D Permit, the Permittee has submitted a list of the parameters that will be monitored in the part B permit application. The parameters of interest are listed on pages C10 (Process Monitors) and C11 (Equipment Shutdown) of the PBR/SDP draft Permit.

With reference to the "...amount and type of anticipated emissions...", the following Permit Condition, has been added to Module II:

II.I.8. The Permittee shall state the amount and type of anticipated emissions from the PBR/SDP unit when conducting incineration of the hazardous waste in future. This shall be preceded by permit modification as stated in Module I, Permit Condition B. The Permittee shall also demonstrate how it will be known when complete combustion has occurred, including a definition of the parameters concerned during operation of the PBR/SDP unit.

Comment 5

Attachment A, Page A3, Indented paragraph:

"On page A3, the indented paragraph on monitoring indicates that monitoring could be operated continuously during the RD&D experiments, but it may not be necessary. Monitoring should be continuous or else there is no way to determine if the process is stable or not. EPA is concerned that if monitoring is not continuous then the waste material is being burned for destruction purposes and not RD&D".

HRMB Response:

NMED agrees with the observation by EPA, consequently, the verbage of the indented paragraph on page A3 has been changed to read as highlighted, while the redundant sentence that has been omitted is struck out as follows:

"The GC and FTIR spectrometer may shall be operated continuously during the RD&D experiments to monitor the stability of the treatment process. It is anticipated

~~that the process will be stable and that continuous monitoring may not be necessary.~~ The other diagnostic equipment (i.e., GCA, IR spectrophotometer, mass spectrophotometer, and ultraviolet absorption cell) may be available to provide supplemental data. Figure 9 and Figure 10 show the diagnostic equipment monitoring points that may be used during RD&D experiments. Sampling points will be selected based on the data that is to be collected during a particular experiment. Attachment I describes the research-specific diagnostic equipment performance in further detail.

In addition, the following Permit Condition, printed in bold, has been added to Module II:

II.I.2. The Permittee shall continuously monitor the RD&D process.

Comment 6

"There are two typos on page C2, second paragraph, sentences 3 and 5 do not start with capital letters".

"On page C8, under the section entitled, "Objective, paragraph three indicates that the wastes in storage at LANL are described in Attachment 11. There is no Attachment 11 in the permit".

HRMB Response:

Sentence 3 on page C2 has now been corrected to read as highlighted, with the original words struck out as follows:

" ~~oxidizer gas will be either air or a mixture of 20% oxygen and 80% argon~~".

Sentence 5 on page C2 has been corrected and now reads as highlighted: "In ~~in~~ addition, by staying fuel lean it is possible to prevent the production of a flame."

The sentence in question on page C8 has been corrected, and shall now read as highlighted, i.e.: "~~The wastes in storage at LANL are described in permit Attachment 11 Attachment 11~~".

COMMENT FROM NMED AIR QUALITY BUREAU (AQB)

Comment 7

".... Please note, an air quality permit may be required for this experimental source if any of the following are applicable:

- 1) the emission rate of any one regulated air pollutant

(nitrogen oxides, carbon monoxide, non-methane hydrocarbons, total suspended particulate, sulfur dioxide) is greater than 10 pounds per hour or 25 tons per year, or

- 2) the emission rate of lead is greater than 5 tons per year, or
- 3) any toxic air pollutant listed in AQCR 702, Part Three Appendix A which exceeds the corresponding emission rate shown in pounds per hour".

HRMB Response:

HRMB agrees with this comment, but will not modify any permit condition for the following reason:

Based on data submitted by DOE/LANL to the AQB, (at the request of AQB) and the conclusion drawn by AQB on January 25, 1994 based on that data, that "... this source will not require permitting under AQCR 702"., NMED has determined that DOE/LANL does not need to obtain an Air Quality Permit for the PBR/SDP unit, but any future modification of or at the unit by DOE/LANL remains subject to permit Condition B.