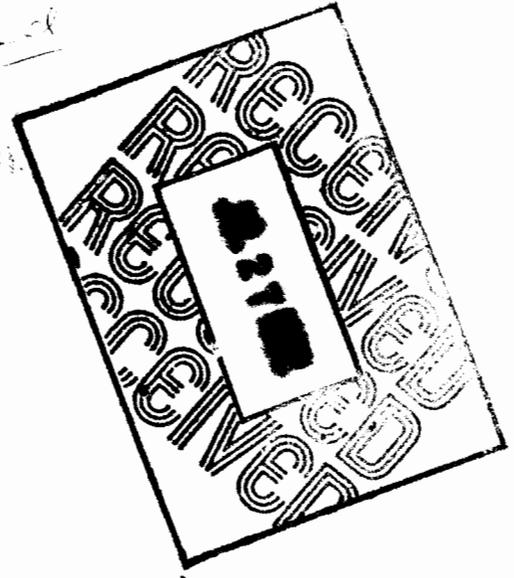




LANL
K-25

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



JUL 22 1992

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Dr. Herbert Grover
Permit Section Coordinator
Hazardous and Radioactive Materials Bureau
New Mexico Environment Department
P.O. Box 26110, 525 Camino de Los Marquez
Santa Fe, New Mexico 87502

Dear Dr. Grover:

These past few weeks have seen considerable progress toward the development of a Research, Development and Demonstration (RD&D) permitting process for the Waste Treatment Integrated Demonstration (WTID) at Los Alamos National Laboratory (LANL). The discussions between your staff and Dennis Hjeresen, the WTID Coordinator, the LANL EM-8 permitting staff, and the Los Alamos Area Office (LAAO) staff have been extremely constructive. Points of contact for the permitting program are Jon Mack for LAAO and those for LANL will remain Jim White, Hazardous and Solid Waste Section Leader, and Alice Barr, both of EM-8. Legal issues will be addressed by Joyce Laeser in the LAAO Office of Counsel and Sheila Brown in the LANL Counsel's Office.

The following summarizes DOE/State discussions to date: Four meetings have been held with state representatives on this issue. On February 24, 1992, Sheila Brown, Jeff Smith and Dennis Hjeresen met with John Garcia, Governor King's Deputy Chief of Staff and Ray Powell Jr., Special Assistant to the Governor, to brief them on the WTID and its potential benefits to the State. On February 28, 1992, Jon Mack, Jim White, Alice Barr, and Dennis Hjeresen briefed the New Mexico Environment Department (NMED) permitting staff in Santa Fe with a general outline of the WTID as an introduction to the subject. On March 11, 1992, LAAO and LANL staff met with you and five members of the NMED staff in Los Alamos for a detailed follow-up to the February 28th meeting. The NMED staff toured the Alternative Oxidation Laboratory where the Electron-beam and Silent Discharge Plasma research projects were presented by Lou Rosocha as examples of technology development under the WTID. Dr. Hjeresen met with you again on April 10, 1992, in Los Alamos and discussed the approach for permitting the WTID. The approach will be outlined again in this letter.



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First, it may be prudent to reiterate our current understanding of permitting obligations for the WTID under Resource Conservation and Recovery Act (RCRA) legislation. RD&D permits are required under RCRA 40 CFR Section 270.65 for research of treatment technology for hazardous and mixed wastes. RD&D permits are issued by the Environmental Protection Agency (EPA) or by states authorized to issue them. The State has received authority from EPA to issue such permits although it has yet to issue its first such permit. RD&D permits are issued specifically for research and do not apply to full scale facility waste treatment. The permits are issued for one year and may be renewed for up to three years. RD&D permits are not required for research on surrogates (i.e., simulated wastes not classified as hazardous under RCRA), pure non-waste chemicals or for modifications to processes prior to the generation of the waste stream. Thus, the first stages of WTID projects will not require permitting. However, since the clear mission of the WTID is to conduct Demonstration, Testing and Evaluation of technologies for Department of Energy mixed and hazardous wastes, planning for the permitting process should be initiated now.

The Los Alamos approach to permit the WTID program is as follows. A RCRA Small Quantity Treatability Exclusion will be applied to the WTID under 40 CFR 261.4f. This will exempt tests of limited quantity and duration from RD&D permitting. This exclusion will require coordination between all of the WTID projects and all other RD&D activities at LANL to assure that the treatment, storage and time limits are not being exceeded. This exclusion will be utilized as part of the phased testing approach built into the WTID. Testing under the Small Quantity Treatability Exclusion will be conducted to determine whether each technology has sufficient promise to pursue an RD&D permit. That is, it is unlikely that during the technology development phase of the WTID that any test projects (or collection of projects) under the WTID will exceed the 250 kg/24 hr limit of the exclusion. However, if an RD&D permit is pursued, the application will cover the range of hazardous and mixed waste to be tested at LANL. This phased approach will provide extensive data for the mixed waste portion of the test program and may facilitate public acceptance of the technology.

LAAO and LANL will be working with NMED to develop this RD&D process specifically for the WTID. Permit requests for as many as three technologies may be submitted during the Federal Fiscal Year 1992 (FY92) depending on technical progress. Technologies possibly requiring permitting are the Electron Beam Oxidation system, the Silent Discharge Plasma Two-stage Treatment Technology and Supercritical Water Oxidation for explosives and energetic materials. Three to five additional permit requests are anticipated from the WTID during FY93 and FY94, respectively.

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Additional Integrated Demonstration Programs or other technology development programs at LANL may generate an additional one or two requests per year beginning in FY93. These numbers should be used to help you plan for your staffing requirements.

Several key points were raised by the NMED staff during discussions at LANL and will be addressed in initial applications. It is understood that the issues you and your staff expect to address in the permitting effort deal more with the process in question than the construction details. That is, they will focus more on worker protection, public safety, containment, and control issues than on engineering or system design. The following issues have been identified as areas to be addressed in the permit applications:

- a basic technology description
- data on technology effectiveness
- information on the possible generation of secondary waste streams
- emergency response systems to deal with mechanical failure
- input waste stream characteristics
- potential for contamination in the event of system failure
- cleanup plans for the operating site in the event of system failure
- system operating parameters
- sufficient detail on technology benefits to defend in public
- monitoring equipment to be used during operations
- public safety issues (containment, emergency response, etc.)
- output waste stream characteristics and analysis systems
- record keeping, reporting requirements and SOP's
- safety backup systems

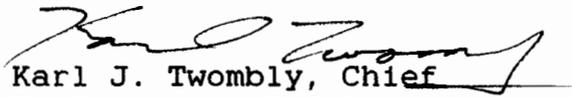
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Please review the proposed approach and notify Jon Mack, of my staff, in writing, of your office's concurrence with this approach or any modifications required. It is recognized that the RD&D Permit process is a new task for your office and will take some time to develop. DOE Los Alamos Area Office personnel and the LANL WTID and permitting staff are fully prepared to assist you during all phases of this effort and look forward to a productive relationship. The benefits of the WTID, not only to New Mexico, but to the nation, for solving real waste treatment technology problems should motivate all of us to put forward our best efforts.

Sincerely,


Karl J. Twombly, Chief
Environment, Safety and
Health Branch

LESH:4JE-010

cc:

J. Mack, DOE/LAAO, MS A316
T. Gunderson, EM-DO, LANL, MS K491
K. Hargis (EM-8:92-1339-1), EM-8, LANL, MS K490
S. Brown, LC/GL, LANL, MS A187
D. Hjeresen, ET-IAO, LANL, MS M899