



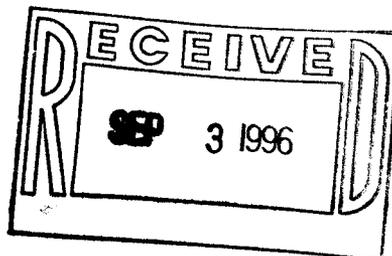
Department of Energy

Albuquerque Operations Office
Los Alamos Area Office
Los Alamos, New Mexico 87544

AUG 29 1996

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Ms. Janice Archuleta
Hazardous and Radioactive Materials Bureau
New Mexico Environment Department
2044 Galisteo Street, Bldg. A
P. O. Box 26110
Santa Fe, NM 87505



Dear Ms. Archuleta:

Subject: STP Waste Included in On- and Off-Site Treatability Studies

The purpose of this letter is to inform you that the Department of Energy (DOE) and the University of California (UC) at Los Alamos National Laboratory (LANL) continue to develop treatment technologies for hazardous waste, including Site Treatment Plan (STP) waste. This will cause need to perform these studies on wastes found in Treatability Groups (TG) outside those indicated in the Compliance Plan Volume (CPV) of the STP in on- and off-site treatability studies. Specific examples include the following:

- Electrochemical treatment was conducted on TGs LA-W907 and LA-W929 in a treatability study currently in progress at LANL. Electrochemical treatment is only specified in the STP for treatability groups LA-W913, LA-W914, and LA-W915. The STP wastes from treatability groups LA-W907 and LA-W929 have the same hazardous constituents and chemical composition as the waste descriptions included in the April 12, 1996 notification; therefore, we believe that our April 12, 1996 notification was valid pursuant to 20 NMAC 4.1, 40 CFR 261.4(f)(1).
- STP waste in treatability groups LA-W912, LA-W922, and LA-W929 is proposed for inclusion in a treatability study at the Catholic University of America Vitreous State Laboratory (VSL) to assess the treatment effectiveness of vitrification. Vitrification is not currently specified in the STP as allowable treatment for any TGs.

The current CPV of the STP is nearly silent with regard to treatability studies (other than a few general references in Section 2 on page 3). There is no mention of treatability studies under the waste or treatment specific sections of the CPV. However, during previous discussions with regard to development of the Federal Facility Compliance Order (FFCO) and STP, the New Mexico Environment Department (NMED) recognized



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and agreed with DOE/UC representatives that treatability studies would be required to develop technologies believed acceptable for treatment of specific wastestreams. This was believed acceptable, as these treatability studies would be conducted in a manner that complies with the requirements specified in Title 20 of the New Mexico Administrative Code, Chapter 4, Part 1 (20 NMAC 4.1), 40 CFR 261.4(f)(1) through (11).

DOE/UC notified NMED of its electrochemical treatment study in its April 12, 1996 Treatability Study Notification. The wastestreams TGs LA-W907 and LA-W929 have the same hazardous constituents and chemical composition as those specified in this notification.

DOE/UC intends to send STP waste to the Catholic University of America's VSL to evaluate the treatment effectiveness of vitrification as a treatment process for highly reactive and highly toxic solid materials at LANL. Advantages of conducting vitrification are as follows:

- Use of this treatment technology could result in a large volume reduction of waste.
- The vitrification process will achieve chemical encapsulation of radionuclides and inorganics.
- The final waste form is stable, non-degradable, and chemically durable.

To date, the Catholic University of America's VSL has performed treatability studies for a number of DOE installations including Fernald, INEL, Hanford, Oak Ridge, Savannah River, Paducah, West Valley, and Weldon Spring. These studies have focused on such wastestreams as asbestos, pit sludges, incinerator ash, evaporator salts, ion exchange resins, contaminated soil, and high level wastes. The wastestreams currently being considered for shipment by LANL to the VSL are water reactive solids, oxidizer solids, and inorganic pure substances (oxidizers and metal powders). These solids are unlike any other wastestreams that have been included in past treatability studies at VSL.

The CPV of the STP originated from an FFCO designed to address violations regarding land disposal restrictions. Provided the waste included in on-site or off-site treatability studies meets the requirements of 20 NMAC 4.1, 261.4(f)(1) through (11), DOE and UC believe waste included in such a treatability study would be excluded from the regulatory requirements specified in 20 NMAC 4.1, 40 CFR Part 268, and thereby would not be subject to STP requirements during the course of that treatability study. It is expected that for on-site treatability studies involving STP wastes, DOE/UC will continue to notify NMED in advance, in the same manner as is done for all treatability studies at LANL in accordance with 20 NMAC 4.1, 40 CFR 261.4 requirements. With regard to off-site treatability studies, since DOE and UC recognize it is the responsibility of the testing facility to notify its regulatory agency, DOE and UC will notify NMED in writing should other treatability studies of STP waste at off-site facilities be planned in the future, in the same manner that we are advising you here of our plans to send STP waste to VSL. All

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volumes of waste subject to such treatment processes will be updated in our annual report to NMED.

Please contact me at (505) 665-5042 if any additional action regarding treatability studies or STP issues is required.

Sincerely,



for

H. L. "Jody" Plum
Office of Environment and Projects

LAAMEP:3JP-014

cc:

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