



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

NOV 19 1999

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Mr. John E. Kieling, Acting Program Manager
 RCRA Permits Management Program
 Hazardous and Radioactive Materials Bureau
 New Mexico Environment Department
 2044 Galisteo St., Building A
 P.O. Box 26110
 Santa Fe, New Mexico 87505



Dear Mr. Kieling:

Subject: Resource Conservation and Recovery Act (RCRA) Change During Interim Status Proposal – Decontamination and Volume Reduction System (DVRS), Los Alamos National Laboratory (LANL)

The purpose of this letter is to request approval of a change during interim status for the DVRS at LANL Technical Area 54 (TA-54), Area G in accordance with the New Mexico Administrative Code, Title 20, Chapter 4, Part 1, revised January 1, 1997 (20 NMAC 4.1), Subpart IX, §270.72(a)(3). This letter and the information provided are in response to discussions held between your staff and LANL representatives of the Department of Energy/University of California (DOE/UC) in recent permit issues meetings, particularly on October 7 and November 5, 1999. As required by the regulation, this request includes a revised Part A permit application and the following justification for the approval of the DVRS.

The DVRS supports the mixed waste retrieval and safe storage activities associated with the Transuranic Waste Inspectable Storage Project (TWISP) at TA-54. TWISP and the subsequent safe storage of retrieved containers represent the implementation of the December 10, 1993 Consent Agreement between NMED, DOE, and UC. We believe that the waste storage improvements resulting from the waste repackaging activities at the DVRS in support of TWISP warrant the project's inclusion as an advantageous and necessary part of TWISP. The temporary staging of these wastes in the DVRS is not being requested as an increase in the total allowed waste storage capacity associated with TWISP or TA-54, Area G. We request that these factors be considered to support approval of this process as a change during interim status as allowed by the above referenced regulation.

The repackaging of waste items contained in fiberglass reinforced plywood (FRP) boxes has become a priority as waste retrieval operations have progressed and waste acceptance and storage criteria have been developed through the course of the retrieval project. The waste contained in FRP boxes will be processed by this system for repackaging in metal drums and



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NOV 19 1999

standard waste boxes (SWB) for safer storage, transportation, and ultimate disposal. In some cases, this repackaging is also necessary to address FRP boxes that have deteriorated during covered storage on Pads 1, 2, and 4 or that have been damaged during retrieval.

As presented at our meeting on October 7, the DVRS is primarily a containment structure within a metal prefabricated building that will be used to examine and repackage waste items contained in the retrieved FRP boxes. The need for this confinement and the siting of this process in a separate building rather than on Pad 1 as originally planned has resulted from our review of radioactive safety considerations and the resulting improvements made to the project. Therefore, although the examination and repackaging activities planned for the DVRS are not RCRA regulated, the potential exists that the time period necessary for the safe performance of these operations may require temporary staging or storage of the containers in the containment structure or other areas of the metal building rather than using the storage available on the pad. Increased space for the storage configuration of the FRP boxes has also become an issue during the TWISP operations. Repackaged waste in containers from this process will be returned to the appropriate TA-54 storage areas as soon as possible under normal waste management operations.

The enclosed Part A permit application contains a U. S. Environmental Protection Agency Form 8700-23 Part A with included TA-54 information as Revision 1.0 to the "LANL General Part A Permit Application, Revision 0.0," submitted to NMED on April 30, 1998. The application contains scale drawings and photographs showing the proposed location for the DVRS. These are included with copies of the original material for TA-54 that should allow the substitution of the entire TA-54 section in the first version of the General Part A. Additional information on the DVRS has also been enclosed with this letter.

If you should have any questions or comments concerning this submittal, please contact Jody Plum of my staff at (505) 665-5042 or Jack Ellvinger, UC, at (505) 667-0633.

Sincerely,



David. A. Gurulé, P.E.
Area Manager

LAAME:3JP-129

Enclosure

cc w/enclosure
Robert S. (Stu) Dinwiddie, Ph.D.
Hazardous and Radioactive Materials Bureau
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ATTACHMENT 1

Decontamination and Volume Reduction System

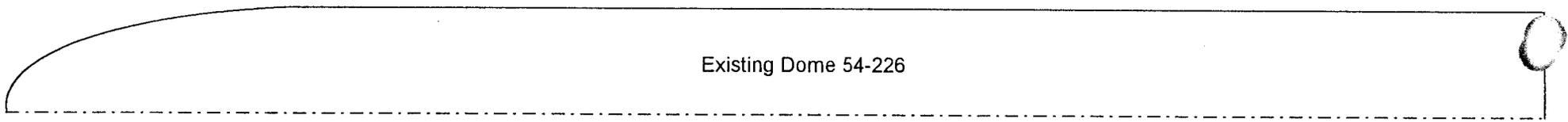
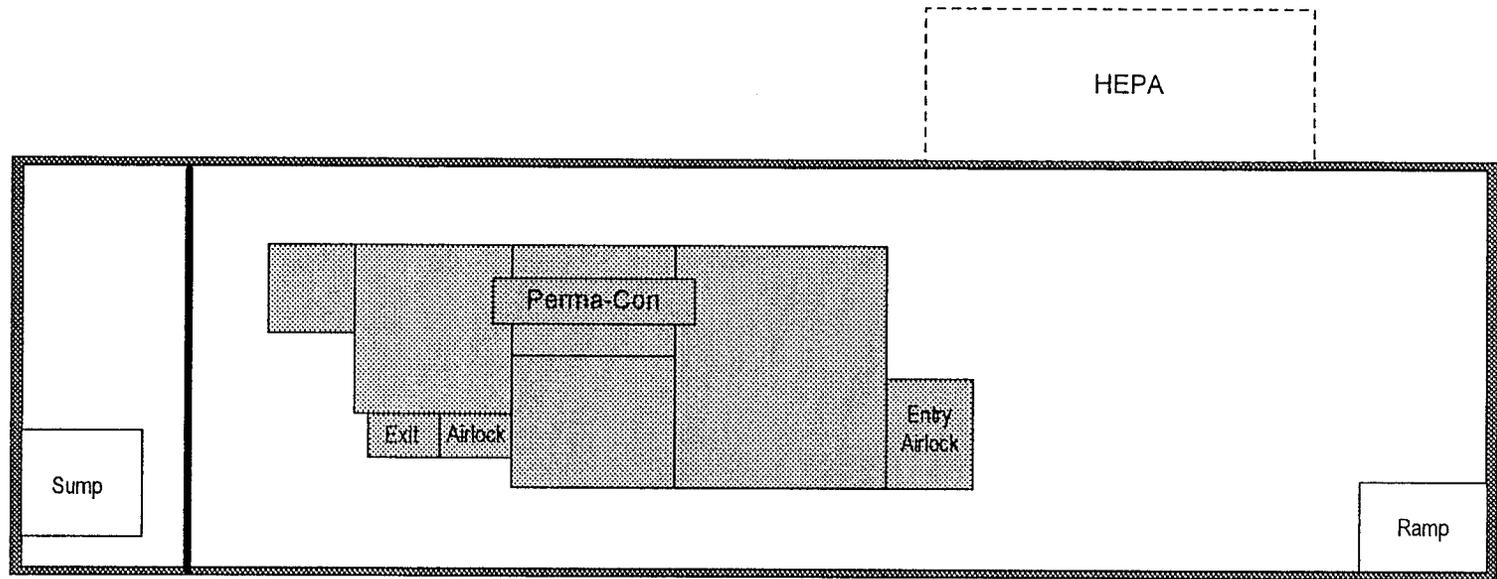
The proposed TRU Decontamination & Volume Reduction System (DVRS), to be located at TA-54, Area G, in Building 412, is a process that is designed to reduce the LANL legacy inventory of oversized metallic waste items. Metal glove boxes, machinery, piping and conduit, and other items historically have been enclosed in reinforced plywood boxes (FRPs) and stored for extended periods of time. The DVRS process is intended to eliminate this FRP box inventory by systemically opening the plywood waste boxes, segregating the TRU-radioactively contaminated contents, decontaminating discrete components to the extent possible, and consolidating the metallic fraction to allow more efficient repackaging for transport and permanent disposal. The DVRS operations include: 1) assaying existing packaged waste; 2) removing and disposing of packaging materials; 3) manually reducing size; 4) shielding removal; 5) gross decontamination; 6) high-pressure decontamination; 7) high-capacity mechanical volume reduction; and 8) final packaging and manifesting of end-product waste materials.

The DVRS building is a 2-hour, fire-rated multipurpose structure approximately 200 ft long by 60 ft wide located west of Dome 226. The floor in the DVRS building is a built-up concrete pad sloped to a sump with a fiberglass grating cover to provide traction and a level working surface. The DVRS will be equipped with personnel doors and a roll-up door. The major DVRS components comprise a modular Perma-Con™ enclosure (staging area and decontamination cell); a high-capacity shear/baler; a five-station passive-active neutron NDA system; digital scales; a data acquisition system; a computerized material control and accountability tracking system (WasteMover); and bale packaging and storage areas. Negative ventilation is maintained throughout the DVRS building with discharge through a multistage, HEPA-filtered stack.

The Perma-Con™, located within the DVRS building, is a 130-ft by 30-ft modular stainless steel enclosure comprised of five cells, which includes a material unpackaging and preparation area, a material receipt airlock, and the main decontamination chamber and volume reduction chamber, both of which are serviced by an overhead crane. Access ports for ventilation, pneumatic tool air lines, and decontamination lines are provided through the modular panels with sealed bulkhead penetrations. Negative

ventilation is maintained throughout with discharge through a multistage HEPA-filtered stack.

Container management practices associated with storage of TRU waste containers at the DVRS container storage area will be protective of human health and the environment in compliance with *New Mexico Administrative Code*, Title 20, Chapter 4, Part I, Subpart V, Part 265, Subpart I (revised January 1, 1997).



Proposed DVRS Container Storage Area TA-54 Area G Building 412