



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
REGION 6  
1201 ELM STREET, SUITE 500  
DALLAS, TEXAS 75270

December 13, 2021

Mr. Chris Catechis  
Acting Director  
Resource Protection Division  
New Mexico Environment Department  
2905 Rodeo Park Drive East, Building 1  
Santa Fe, New Mexico 84505

**Re: EPA Determination on the Regulatory Definition of “Treatment” on the Process of Venting Tritium to Reduce the Pressure within the FTWCs.**

Dear Mr. Catechis:

We have reviewed your letter dated October 28, 2021, asking if the proposed venting of four mixed waste Flanged Tritium Waste Containers (FTWC) would satisfy the definition of “treatment” under RCRA necessitating New Mexico Environmental Department’s (NMED) prior authorization?

On March 3, 2020, Los Alamos National Laboratory (LANL) submitted a temporary authorization request to NMED to treat and process the four mixed waste FTWCs packaged at Weapons Engineering Tritium Facility (WETF) in 2007 and currently stored on site (Technical Area (TA) 54, Area G, Pad 5, building 1028). LANL classified the FTWCs as mixed low-level radioactive and hazardous, when during a routine audit, they discovered that lead byproduct (hazardous waste number D008) waste had been mixed with low-level radioactive waste, including tritiated wastewater in the FTWCs. LANL claims that it cannot move the FTWCs to an onsite area for processing and segregation because radiolysis of the tritiated water has produced pressurized oxygen and hydrogen gases that pose an ignition and flammability safety hazard.

LANL has proposed to depressurize by venting the FTWCs using the lid pot, sending the headspace gas through a getter bed to capture the tritium, and then venting the remaining gases through a monitored exhaust system. The venting would be performed at the current storage area (TA-54-1028).

After evaluating the request and further discussion with EPA HQ, we note that whether a particular process constitutes treatment is a site-specific determination, limited to the facts and particular circumstances of the activity. In accordance with 40 Code of Federal Regulations Section 260.10, “Treatment” is defined as “any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such waste, or so as to recover energy or material resources from the waste, or so as to render such waste non-hazardous, or less hazardous; safer to transport, store, or dispose of; or amenable for recovery, amenable for storage, or reduced in volume”. Based on the information provided to us

regarding LANL's proposed venting of the FTWCs, EPA believes that this activity does meet the definition of treatment, since removing the gas from the container is a physical change to the composition of the waste and it is being done so as to render the waste safer to transport.

Please note that this interpretation of treatment does not authorize any treatment activities nor supersede NMED's authorization to administer and enforce its own hazardous waste program or adopt regulations that are more stringent than the federal program. Furthermore, this interpretation would not exempt LANL from obtaining the necessary Clean Air Act (CAA) authorizations for any resulting emissions such as those described in EPA's October 18, 2021 letter requesting resubmittal of DOE's application for preconstruction approval under 40 CFR Part 61, Subpart A and H, for venting of the FTWCs.

If you have any questions, please contact me or have your staff contact Melissa Smith, EPA Region 6 RCRA, Brownfields and Solid Waste Branch Chief, at 214-665-7357 or [smith.melissa@epa.gov](mailto:smith.melissa@epa.gov).

Sincerely,

12/13/2021

X Ronald D. Crossland

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Ronald D. Crossland

Signed by: RONALD CROSSLAND

Director  
Land, Chemical and Redevelopment Division