

Dear Chairman Sullivan and members of the Defense Nuclear Facility Safety Board. My name is Chris Fischahs and I am here to speak as a resident and concerned citizen of Los Alamos, NM; these views are not to be mistaken as the views of the Los Alamos Field Office and/or NNSA. Tonight, I am here to express my concerns with the Low Level Wastewater Treatment Facility under construction at LANL's Technical Area (TA)-50. The LLW Treatment Facility (LLW) is a defense nuclear facility and within your oversight responsibilities, as I understand it.

LLW is a new, less than hazard category - 3 (< HC-3) DOE nuclear facility which is being built to replace, in part, the 50-year old Radioactive Liquid Wastewater Treatment Facility (RLWTF), where I worked for 5 years as a Cognizant System Engineer. When the original LLW design was put out for construction bid, it included installation of an ASME AG-1, *Code on Nuclear Air and Gas Treatment*, compliant HEPA filtration unit in the building's exhaust ventilation system. HEPA-filtration is used to filter airborne radioactive particulates from building air prior to exhausting it outside so as to mitigate the radiological consequences to the public, collocated workers and the environment.

I continue to believe that it is a sound and reasonably achievable engineering principle to install an ASME AG-1 compliant HEPA filtration unit in the LLW exhaust ventilation system. Without it, there is no engineered control to remove radioactive particulates from the building air prior to it being discharged. This failure to maintain confinement of radioactive materials would appear to be contrary to any reasonably conservative design requirement, especially for a new DOE nuclear facility.

The unfiltered exposure potential from LLW radioactive releases could be analogous to the consequences from the WIPP radiological release (Station 1: 3 mrem). Installation of a HEPA filter unit in the nuclear facility's exhaust ventilation system would lower this public and worker exposure and release to the environment by 99.97%... the efficiency-rating of the HEPA filters for radioactive particulate removal. At approximately 1% of the total project cost, inclusion of a HEPA filtration unit on a \$50-million plus facility to provide confinement of airborne radioactive materials appears to be reasonable cost to protect the public, workers and the environment.

DOE O 458.1, *Radiation Protection of the Public and the Environment*, requires the as-low-as reasonably achievable (ALARA) process to be applied to the design of facilities that expose the public or the environment to radiation or radioactive material. Obviously, this ALARA requirement applies to the LLW also. Failure to install a HEPA filtration unit in the LLW exhaust ventilation system would appear contrary and inconsistent to the ALARA process and principles. The ALARA process is also a Code of Federal Regulation requirement, as defined in 10 CFR 835, *Occupational Radiation Protection*. Similarly, 10 CFR 830 Subpart A, *Quality Assurance Requirements*, requires the use of sound engineering principles and appropriate standards in the design of nuclear facilities; elimination of the ASME AG-1 nuclear filtration system from the LLW design would seem to be inconsistent with these CFR requirements.

RECOMMENDATION: Consistent with 10 CFR 830 and 835, DOE O 458.1 and the lessons learned from the WIPP radiological accident, I believe that installation of an ASME AG-1 compliant HEPA filtration unit in the LLW exhaust ventilation system should be considered a reasonably achievable design feature. As such, I ask for your continued support in ensuring that consequences to the public, workers and the environment from radiological releases from LANL's defense nuclear facilities, including its radiological nuclear facilities, are kept as-low-as reasonably achievable.

If you have any questions regarding this concern, please let me know.

Thank you.

Mr. Chris Fischahs

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