

THE WEST VALLEY CITIZEN TASK FORCE

January 7, 2019

Theresa Kliczewski U.S. Dept. of Energy, EM 4.2 Office of Environmental Management Office of Waste and Materials Management 1000 Independence Avenue SW Washington, DC 20585

By email only: <u>HLWnotice@em.doe.gov</u>

Re: Comments on DOE proposal to reinterpret "high-level radioactive waste" (HLW), as proposed in 83 FR 50909-11 (October 10, 2018)

Dear Ms. Kliczewski:

As members of the West Valley Citizen Task Force appointed by U.S. Department of Energy (DOE) and New York State Energy Research and Development Authority (NYSERDA), we offer the following comments on the *Federal Register* notice identified above. Some of our comments are specific to the West Valley Demonstration Project (WVDP or West Valley site), while others are more general.

1. It does not appear that DOE's proposed reinterpretation of HLW can be applied within the boundaries of the WVDP. The proposed reinterpretation is based on the definition of HLW in the 1982 Nuclear Waste Policy Act.¹ However, the West Valley Demonstration Project Act of 1980 has its own definition of HLW.² This latter definition doesn't contain the wording on

¹ "The term 'high-level radioactive waste' means-

⁽A) the highly radioactive material resulting from the reprocessing of spent nuclear fuel, including liquid waste produced directly in reprocessing and any solid material derived from such liquid waste that contains fission products in sufficient concentrations; and

⁽B) other highly radioactive material that the Commission, consistent with existing law, determines by rule requires permanent isolation." Sec. 2(12) of Nuclear Waste Policy Act, 42 U.S.C 10101 et seq., quoted from https://www.energy.gov/sites/prod/files/edg/media/nwpa_2004.pdf.

² "The term 'high level radioactive waste' means the high level radioactive waste which was produced by the reprocessing at the [Western New York Nuclear Service] Center of spent nuclear fuel. Such term includes both liquid wastes which are produced directly in reprocessing, dry solid material derived from such liquid waste, and such other material as the [Nuclear Regulatory] Commission designates as high level radioactive waste for purposes of protecting the public health and safety." Sec. 6(4) of West Valley Demonstration Project Act of 1980, P.L. 96-368.

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which DOE relies on for its reinterpretation but remains in effect at the WVDP as a site-specific statutory definition. In each of the two Acts, we note that the definitions are "for purposes of this Act," and we understand their respective purposes to be complementary and non-overlapping, such that neither definition supersedes the other.

2. DOE's first criterion for reinterpretation, as currently drafted,³ could inappropriately encourage dilution of HLW. Such dilution should be prohibited. There are two possible ways in which dilution might be done. One would involve physical mixing of HLW with material that is less radioactive in order to meet concentration limits for Class C low-level radioactive waste. The other would be done by averaging the radioactivity of HLW over a larger mass or volume than the HLW alone, such that the combined radioactivity of HLW and physically adjacent material such as grout would be divided by the combined mass or volume of HLW and physically adjacent material in order to meet Class C concentration limits. Both types of dilution are inappropriate and should be prohibited.

3. DOE's second criterion for reinterpretation, as currently drafted,⁴ is tied to "a performance assessment conducted in accordance with applicable regulatory requirements." As an important additional safeguard, we recommend that any such performance assessment *needs to ensure that the performance assessment is both protective and traceable*, such that the protectiveness can be verified by independent experts, and such that traceability is maintained into the indefinite future in the form of both printed paper media (hard copies) and electronic digital media (software and associated hardware on which the software remains operable).

4. DOE's first criterion for reinterpretation, as currently drafted, is tied to a single section of NRC's disposal regulations, namely, 10 CFR 61.55. If/when HLW reinterpretation is being used to justify a disposal pathway, it is inappropriate to rely on just one section of the disposal regulations. *It is crucial for the provisions of 10 CFR 61 to be met as a whole, and any HLW reinterpretation should provide this assurance*. While this comment applies to various sites, we note that such assurance has already been formalized, at least in part, at the WVDP. Any reliance on 10 CFR 61.55 concentration limits at the WVDP would need to be coupled with an evaluation of the site-suitability and site-design requirements set forth in 10 CFR 61.50 and 61.51, as required by paragraph 8 of the Stipulation of Compromise Settlement signed in 1987.⁵

⁴ "Does not require disposal in a deep geologic repository and meets the performance objectives of a disposal facility as demonstrated through a performance assessment conducted in accordance with applicable regulatory requirements." Quoted from 83 FR 50910 (October 10, 2018).
⁵ <u>https://www.wv.doe.gov/Documents/DOE_Stipulation_Of_Compensation.pdf</u> [URL valid as of December 13, 2018]. A similar conclusion, applicable to disposal of reprocessing wastes at any site, could be drawn from an August 18, 1987 letter from Malcolm Knapp (NRC) to Willis Bixby (DOE), which states in part that "The waste classification system in 10 CFR Part 61 contains radionuclide concentration limits that apply to commercial wastes and some federally-generated wastes.... [W]astes resulting from the reprocessing of spent fuel were not analyzed as a part of the commercial or federal

³ "Does not exceed concentration limits for Class C low-level radioactive waste as set out in section 61.55 of title 10, Code of Federal Regulations." Quoted from 83 FR 50910 (October 10, 2018).

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Thank you for this opportunity to comment on this *Federal Register* notice. We appreciate the effective working relationship we have had for many years in our advisory capacity with both DOE and NYSERDA. As always, we continue to work toward cleanup of the West Valley site, including both safe storage of wastes in the near term and safe disposal of wastes in the long term.

Sincerely,

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Bryan Bower, DOE Director, West Valley Demonstration Project Paul J. Bembia, NYSERDA Director West Valley Site Management Program

source term used in the EIS that provides the decision basis for 10 CFR Part 61." The letter indicates that the 10 CFR 61.55 concentration limits cannot serve as a protective stand-alone criterion for disposal of reprocessing wastes without additional analyses that would consider, for example, the specific physical, chemical, and radiological properties of the wastes; proposed methods of disposal; and site-specific conditions.