



FACT SHEET

CLARIFYING NUCLEAR WASTE DEFINITION TO REFLECT COMPOSITION CAN CREATE ADDITIONAL DISPOSAL PATHS, EXPEDITE CLEANUP

ECA supports clarifying the definition of transuranic waste (TRU) and high-level waste (HLW) to reflect the composition of the waste rather than the origin. ECA shares the Department of Energy's (DOE) goal to remove waste as quickly and safely as possible to an appropriate location for disposal. Some defense HLW at Hanford, Savannah River Site, Idaho National Laboratory, and West Valley, NY, meets the current specific definition of TRU waste and as such, are not truly HLW as currently defined under the Nuclear Waste Policy Act (NWPA). If a legislative clarification is drafted to resolve this ambiguity, significant progress could be made on the cleanup and waste removal at DOE sites and the adjacent communities leading to lower DOE costs for storage and less risk to human health and the environment.

Why the Need for Clarification:

The current definition applied to HLW is vague and lacks specificity. For example, in the current definition the statement *“that contains fission products in sufficient concentrations”* is not precise enough and does not adequately address the current state of defense HLW. However, TRU waste as defined in 40 CFR 191.02 is very precise and adequately allows DOE to segregate and identify acceptable disposal paths for this waste.

HLW is defined in the Nuclear Waste Policy Act (NWPA) as:

“(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^[1]_[SEP] (B) other highly radioactive material that the Nuclear Regulatory Commission, consistent with existing law, determines by rule requires permanent isolation.”

TRU waste is defined in 40 CFR 191.02 as:

“waste containing more than 100 nanocuries of alpha-emitting transuranic isotopes, with half-lives greater than twenty years, per gram of waste, except for: (1) High-level radioactive wastes; (2) wastes that the DOE has determined, with the concurrence of the

Administrator, do not need the degree of isolation required by this part; or (3) wastes that the Commission has approved for disposal on a case-by-case basis in accordance with 10 CFR Part 61.”

What Needs to Happen:

A clarification, proposed text below, needs to be placed in legislation (e.g., the National Defense Authorization Act). The result would capture and clearly define radioactive wastes currently being incorrectly defined.

“Regardless of origin or previous categorization, radioactive waste, other than spent nuclear fuel, containing more than 100 nCi/g of alpha-emitting transuranic isotopes with half-lives greater than 20 years is transuranic waste.”

Potential Benefits of Waste Definition Clarification

With such an amendment and proposed legislative clarification, additional existing storage and disposal paths would become available for some of the waste currently stored as HLW at SRS, INL, Hanford, and at West Valley, NY. These include a number of existing HLW canisters at SRS and West Valley.

Some HLW may not need to be vitrified as currently planned if disposed of as TRU waste. This would benefit the sites, save DOE and taxpayers money by disposing of the waste more quickly in a safe manner, and allow available funds to be utilized more effectively for cleanup of the nuclear weapons complex.