



Via email to djhansen@utah.gov

February 9, 2023

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Utah Department of Environmental Quality
Division of Waste Management and Radiation Control
PO Box 144880
Salt Lake City, Utah 84114-4880
Attention: Douglas J. Hansen

Subject: Shipments of Waste from the former Energy Technology Engineering Center

Dear Director Hansen:

I wish to bring to the attention of the DWMRC my concerns over irregularities in shipments of waste from the Department of Energy's (DOE) former Energy Technology Engineering Center (ETEC) in Southern California to EnergySolutions in Clive, Utah during 2020-2022.

A [2020 Amendment to Order on Consent](#) signed by California's Department of Toxic Substances Control (DTSC) and the DOE, committed to send both decommissioned material (released for unrestricted use) and non-radiologically impacted demolition debris from buildings with no history of radiological use, to either authorized or licensed LLRW disposal facilities. In the end, all building demolition waste was sent to the licensed LLRW disposal facility at EnergySolutions, Clive, Utah. This unique and potentially precedent-setting agreement was the result of political pressure from California activists.

Following completion of the demolition program, I sent a [FOIA request](#) to DOE, seeking shipping papers for the subject waste that would explain how DOE could manifest non-radiologically impacted waste as LLRW.

After almost a year, [DOE responded](#) by providing a data package including, [EnergySolutions Radioactive Waste Profile Records](#) for five waste streams and [NRC 540/541 Uniform Low-Level Radioactive Waste Manifests](#) for four hundred and eight shipments. Close inspection of these regulatory required documents demonstrates misuse and misapplication of limited survey data, failure to identify building names, and highlights numerous inconsistent and illogical data in shipment manifests.

- DOE uses the same limited survey data (one upper-bound surface scan data point and three wipe tests) from a contaminated, non-decommissioned facility to characterize demolition debris from different facilities,
 - 1) that same facility, and
 - 2) three decommissioned buildings that had been released for unrestricted use, and
 - 3) four buildings that had no history of radiological use and had been surveyed as being indistinguishable from background.



- DOE provides no building identification names/numbers, that would facilitate distinguishing waste from (1) acknowledged contaminated non-decommissioned buildings, (2) decommissioned buildings, and (3) buildings with no history of radiological use. This is clearly an effort to obfuscate and cloak distinctions between real LLRW and fake LLRW.
- Instead of using the waste stream profile weighted average concentrations to derive the container activities by multiplying by the waste weight, the manifests appear to do the reverse by dividing the container activities (whose source is unexplained) by the waste weight to derive the container weighted average concentrations, which are then inconsistent with the waste stream profile weighted average concentrations.
- NRC 540/541 manifests for multiple separate containers have identical individual and total radionuclide activities (to the 5th significant place), yet significantly different net waste weights.
- NRC 540/541 manifests for multiple separate containers have identical individual and total radionuclide activities, and identical net weights (to the 7th significant place).
- Some individual manifests have identical gross and net waste weights implying the container has zero weight.

Clearly there has been a systemic lack of quality control by DOE's contractor that completed the shipping paperwork, by DOE itself, and by *EnergySolutions* that is responsible to ensure the waste it receives is properly documented and complies with its NRC and Utah State licenses.

This concern was communicated in detail to the DOE, North Wind, *EnergySolutions* and DTSC, thirty days ago, but as of today, has failed to elicit any response. See [online letter to DOE](#) for background, additional details and [specific examples](#) of the general errors/inconsistencies outlined above.

Please inform me of any consequential actions that DWMRC will undertake, and results of those actions.

If you need any further information, please do not hesitate to contact me.

Sincerely,

Phil Rutherford

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