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**Re: Holtec Scoping (EIS for a proposed consolidated Interim Storage for Spent Nuclear Fuel in Lea County, New Mexico)**

Whereas for the record I believe that the proposal to handle spent nuclear fuel to a temporary storage location in New Mexico is completely ill advised. It has developed from a sense of urgency in not dealing with the wastes since the first reactor went on line in 1945.

I am in accord to the Green Party National platform on this issue which reads as follows.

"The Green Party strongly opposes any shipment of high-level nuclear waste across the U.S. to the proposed Nevada waste repository at Yucca Mountain, or any other centralized facility. The Green Party believes that these proposals are part of a move to re-fire a fast-track, commercial nuclear industry by providing a means for "safe disposal." We deny there is such a thing as safe disposal of nuclear waste. We propose making spent reactor fuel and other high level wastes safer by vitrification at the site where it is produced or now stored."

This proposal of Holtec has shortcomings that must be addressed in the scope of the EIS as noted below

1) CASK TEMPORARY INTERIM STORAGE Address that this process is not "temporary" because it is our understanding that the spent fuel casks at Hanford DOE reactors, at military spent fuel facilities and those of commercial facilities nationwide are not capable of being monitored for cracks and ruptures, that may end up causing the "temporary" status to be not true. (Conversation with Ace Hoffman 5/29/2018) and (Neutron Bytes. October 2016. "all naval spent fuel, old and new is required to be removed from Idaho by 2035".) (Donna Gilmore 949-204-7794)

2) CHARACTERIZE THE FULL EXTENT OF THE PROBLEM CURRENTLY AND WITH CONTINUED STATUS QUO TO END OF COMMERCIAL NUCLEAR POWER. Address the current status (Manufacturer, age and condition and wall thickness and annual emissions of radiation by isotopes and gasses by venting or other release mechanism per each existing cask. Include loading and last cask test date) and location (including identification of high risk seismic and or tsunami zones as per NRC emergency review nationally after Fukushima

[www.nrc.gov/reactors/operating/ops-experience/japan-dashboard/priorities.html](http://www.nrc.gov/reactors/operating/ops-experience/japan-dashboard/priorities.html) ) of all the proposed spent fuel rods in pools and casks slated for disposal nationally from both military and civilian reactors to Consolidated Interim Storage. Address the characterization for shipment and Wigner effect issues with old spent fuel rods that were stainless steel clad and any other variations that are now proposed for shipment. Address the operational nuclear power plants both commercial and governmental and military as to the additional spent fuel which would be created and be slated for this or any another "temporary" facility even if all NPP's are shut down within 20 years.

3) SAFETY COVERAGE AND COSTS Address the status of the radiation monitoring locations within 400 miles radius of the Holtec facility, the isotope(s) currently monitored for and the down time history of each monitoring location for the last ten years. How much do these facilities cost and will additional monitoring be needed, will existing monitors and new ones need a broader range of isotopes to be monitoring for and who will pay for the new monitors and updating the old ones? What would be the notification plan for any and all 400 mile radius down winders?

4) ECOLOGICAL IMPACTS Address the entire annual emissions of radiation by every isotope emitted by any means and by and with any gasses by venting or other release mechanism by this facility. This then must be looked at and described cumulatively for the facility and the fallout deposition zones near and far with the pathways of bioaccumulation up the food chain and increased health impacts on biological systems such as dairy cattle, farm animals in CAFO's, wildlife impacts and finally, including humans.

5) HOLTEC SYSTEMS VULNERABILITIES per each existing cask safety monitoring system of the Holtec facility proposed and the existing radiation monitoring locations and the local and national evacuation notification system during extended vulnerability to a CME Level 5 event especially the loss of cask monitoring when a criticality incident happens at the same time. .

6) ALTERNATIVES ANALYSIS WITH LIFE CYCLE COSTS TO FINAL REPOSITORY. The EIS must consider a policy alternative of keeping the casks on site with using spent fuel inspection pools either already in place or capable of being rebuilt for removal of spent fuel from the casks in order to perform cask integrity tests because the safety of the status quo based on the types of casks currently used is suspect based on failures happening in casks stored in marine environments. Address whether or not spent fuel pools not covered are a hazard to workers on site and impacts by releases to atmosphere by outdoor pools such as may be installed at a Holtec facility

7) PRE and POST TRANSPORT INSPECTION REGIME. The EIS must address who will inspect and how the fuel casks will be inspected for cracks and other anomalies such as material point defects and dislocations prior to shipment. Also there must be inspections and assessments of the integrity of the fuel rod assemblies and rods for point defects and dislocations prior to transport for damage and at the interim storage upon arrival. Finally, the EIS must address the testing of the entire cask for residual radiation swabs on the fuel casks and replacement of the cask if it's exterior fails to meet the

8) GLOBAL GHG EMISSIONS AND LATENT ENERGY AND OPPORTUNITY COSTS Because Climate Change, Sustainability, and Energy Security are all global issues, the CO2 and other Greenhouse Gas (GHG) emissions for all materials and all energy flow must be quantified for the proposed cycle of disposal of the waste and possible alternatives.

This needs be evaluated using **four alternatives** to leaving all the casks and spent fuel in pools where they are.

1. This alternative of "Temporary Interim Storage" transport (new containers and or casks and or repaired fuel rods, the reinstallation of fuel pools if existing pools have been decommissioned and destroyed so that they would be able to be used for checking containers for shipment, special railcars construction, and emissions from dedicated rail shipments), the creation, construction and management of temporary storage (including but not limited to all materials and water used in the construction such as the ceramic concrete, the gases used for repository cask integrity, railyard facilities to and from the existing on site storage) , retrieval (installation of a recheck facility), and of transport and storage creation and management of the permanent repository), or
2. Letting all the casks and spent fuel in pools stay in place and vitrification of waste done on site, or
3. Letting all the casks and spent fuel in pools stay in place and a spent fuel neutralization process used starting now with the an experiment with Patent US 9,613,726 B2.  
(<http://goo.gl/76ro0tZ>)
4. The alternatives 2. and 3., the modification of both of the scenarios of taking the most critically threatened casks and spent fuel in pools to smaller DOE secure lab managed or high secure military facilities (such as the Nevada Test Site) for temporary storage because of their current location in high risk, historic Richter Scale earthquake or tsunami zones as identified by the NRC evaluations of reactor sites done nationally after Fukushima.  
[www.nrc.gov/reactors/operating/ops-experience/japan-dashboard/priorities.html](http://www.nrc.gov/reactors/operating/ops-experience/japan-dashboard/priorities.html)

A full thermodynamic analysis coupled to a life cycle assessment (LCA) needs to be included in the EIS for each of alternative comparisons with the full range of uncertainty addressed. (CCNP, Page 42)

Adding to this Latent Energy expended for all alternatives, GHG emissions (extrapolated if not reported) of any Fluoro and Chloro compounds that are created for the industry storage, gases used for the temporary storage casks and Kr-85 releases and it's ionization impacts on tropospheric ozone and impacts on crops as well (see Ahlswede et al. 2012), and of course, the present and future costs. As for the units to be used, we request you use for this EIS, gCO<sub>2</sub>/kWh (gramCO<sub>2</sub> per kilowatt-hour) for uniformity. (CCNP, Page 58-66)

9) **AQUIFER USE AND FRESH WATER LOSS** Discussion of the Aquifers used for construction water and losses to aquifers in the area. Removal of freshwater from critically limited state resources with impacts on dairy and oil and gas activities needs to be addressed. (EPA Office of Groundwater Protection/ Lea County, New Mexico Office of the State Engineer/ New Mexico State Land Office)

10) **AIR IMPACTS** With regard to a cumulative impact on human health of gas flaring already in the air shed, Kr-85 increases in creating conditions for tropospheric ozone. Characterize the probability of increasing asthma and COPD and lung and thyroid cancers.

11) IRREVERSABILITY Address, in accordance to the NEPA, the irreversible and irretrievable commitment of resources when the casks that have been placed at the Holtec facility may never be moved again due to Wigner Effect on cask and fuel rods and fuel rod bundles and embrittlement and swelling.

12) AGING MANAGEMENT PLANS The document should look and provide to the public a full comparison of the aging management plans for all the alternatives listed above in item 8) including the keeping the fuel rods where they are and shutting down the reactors across the USA both military and commercial so that more waste is not created.

13) CORPORATE RIGHTS The transfer of the spent fuel and casks into the hands of another private entity, one whose integrity is questioned must never be done without full disclosure and transparency of all documents at the disposal of the company. Provide as part of the EIS, an appendix of the full copy of the proposed contract. Provide to the public in the proposed contract language that allows for full unannounced inspections by federal, state and local governments and their representatives that bypasses the any idea of corporate personhood rights.

14) Finally, I request the release of all discussions with HOLTEC from the initiation of this proposal to be placed on line for public use and an extension of the Scoping Comment Period to cover additional meetings along the entire rail transportation network proposed for this temporary repository. Those meetings should fully identify as a start, the quality of all rail track for this transportation and segments that are unacceptable hazard zones for loss of track and cargo.

Sincerely



Stephen A. Verchinski

Ace Hoffman, Writer/Author, "The Code Killers (An Expose of the Nuclear Industry)" Version 2010.

[ace@acehoffman.org](mailto:ace@acehoffman.org), POB 1936, Carlsbad, CA 92018. 53 Pages.

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