

Private ISF

From: Diane D'Arrigo <dianed@nirs.org>
Sent: Friday, January 27, 2017 10:05 PM
To: PrivateISF
Subject: Response to RFI on Private Initiatives to Develop Consolidated SNF Storage Facilities from NIRS
Attachments: DOE PI comments 1-27-2017.pdf

Comments of the Nuclear Information and Resource Service (NIRS)

To: U.S. Department of Energy (DOE) Office of Nuclear Energy

Email to: PrivateISF@hq.doe.gov <<mailto:PrivateISF@hq.doe.gov>>

Subject line: Response to RFI on Private Initiatives to Develop Consolidated SNF Storage Facilities

RE: Request for Information on Approaches Involving Private Initiatives for Consolidated Interim Storage Facilities

81 Federal Register No. 208 Thursday October 27, 2019 page 74779

Date: January 27, 2017

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Nuclear Information and Resource Service

For a Nuclear-Free, Carbon-Free World

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RE: Request for Information on Approaches Involving Private Initiatives for Consolidated Interim Storage Facilities

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The U.S. Department of Energy (DOE) should withdraw the Request for Information on Approaches Involving Private Initiatives for Consolidated “Interim” Storage Facilities and cease all consideration of such facilities.

Nuclear Information and Resource Service contends that the Department of Energy has no legal justification for to considering private initiatives for Consolidated Storage because Consolidated Storage facilities in the absence of a permanent repository are not legal under the existing Nuclear Waste Policy Act. Section 111 of the Nuclear Waste Policy Act specifically provides that the federal government will not take title to irradiated (“spent”) nuclear fuel until it is received at a repository. [42USC10101et seq. and 42USC 10131(a)(5)]

The Nuclear Waste Policy Act requires a permanent repository before title and liability to the irradiated fuel from nuclear power can be transferred to the DOE, essentially the U. S. taxpayer (except in an emergency which does not apply to the DOE’s private initiatives concept). Nuclear utilities and merchant plant owners, that generate the nuclear waste, will not move it from their sites without transferring their title and liability to it. Thus Consolidated “Interim” Storage sites will not be possible or practicable without DOE taking title.

Private, profit-making entities appear to be motivated to consolidate the waste so as to profit from nuclear waste money and possibly the money that is being paid out from the US Treasury in judgments. Rather than going to private profits, those resources should be used to manage and isolate the waste.

There are basic problems with Consolidated Storage including unnecessary transport risks and dangers, potential for reprocessing and proliferation of radioactive materials for weapons and dirty bombs, and use of the same storage technology as at reactor sites thus no increase in protection but added risk from transport.

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The following comments have been provided to government entities in the past regarding Consolidated Storage. We remind DOE that these concerns remain. Most of the questions posed in the RFI assume Consolidated Storage is legal and move into details that ignore the larger reality that the whole concept is flawed. Thus we are providing our input on the Consolidated Storage concept overall.

The first objectives of any strategy to manage our country's stockpile of nuclear waste, in addition to limiting its size, must be the least dangerous and most secure storage allowing for monitoring, inspection and repair and minimizing the number of times radioactive waste is handled and transported. The proposal to move nuclear waste to one or more Consolidated Storage facilities does not meet this objective, whether by government or private initiative. In addition Consolidated Storage does not address, in fact hinders facing broader storage and disposal issues. Adopting a plan to move waste around the country without linkage to permanent disposal would be inequitable for the community receiving the waste potentially permanently.

Transportation risks and hazards are compounded. Consolidation would multiply the distances high-level waste is shipped, and escalate the risks of public and worker exposure and severe accidents (accident rate is directly tied to shipment miles). It would also further stress and potentially damage irradiated nuclear fuel, making future handling, transport, and long term isolation from the environment much more difficult.

Multiple transportation campaigns are more complex than some reports make them out to be. The National Academy of Sciences report "Going the Distance," expressly stated that security concerns were significant. To date, containers for irradiated fuel have never been physically tested—particularly those currently in use at reactor sites—for accident conditions. They are not required to meet real conditions of road, rail and water transport. Even routine transport will result in ionizing radiation exposure to the general population. The current regulations do not reflect many new findings about radiation impact that underscore, once again, that such exposure must be minimized, not multiplied for corporate convenience. Of special concern is that radiation harms females and youth much more than other parts of the human life-cycle.

Transfer of backlog waste to dry containers in a hardened storage system at the site where it was generated, and storage in hardened inspectable containers and systems, for the "interim" period at that site, will reduce enormous risk factors for both over-full fuel pools and unnecessary transport of the waste. Security and safety at the existing sites would be greatly increased by the hardening of the dry storage containers. Hardened On-site

Storage or HOSS is a set of principles developed by communities currently impacted by on-site waste storage and are posted in complete form here: <http://www.nirs.org/radwaste/policy/hossprinciples3232010.pdf>

Transporting waste to a Consolidated Storage site does not resolve existing vulnerability of nuclear waste storage. Reducing the inventory of irradiated fuel stored in liquid pools at reactor sites must be a top priority as is limiting the continued generation of the waste. Enabling Consolidated Storage does not ensure a prompt removal of waste from pools at all sites.

Consolidated Storage sites could--in fact likely will--become de facto permanent sites even though they are only being evaluated for relatively short time frames.

As indicated earlier, under the Nuclear Waste Policy Act of 1982, the federal government will not take possession of commercial nuclear waste until it goes to a permanent repository. There is no such site and Yucca Mountain is technically not qualified. Effort and resources should be expended for planning for the both short and long term isolation of the waste, not moving it thousands of miles potentially back and forth across the country.

We need a strategy that prioritizes safety and security not illegally shifting liability and triggering a massive, unprecedented transport campaign on the nation's roads, rails and waterways.

Moving irradiated nuclear fuel and other high level wastes to a Consolidated Storage site could de-incentivize and adversely impact progress of the nation's efforts toward a viable permanent solution. The law wisely links the relationship between storage and permanent disposal. The efforts for Consolidated Storage without the linkage to permanent system to isolate the waste are not credible.

True consolidation of waste is not possible as long as nuclear utilities continue to generate waste. As long as nuclear power plants continue to operate, nuclear waste will be at reactors, as the waste must be cooled in pools before being moved to either on-site dry storage or an off-site storage facility. This fact combined with the decades it would take to ship the existing backlog of waste is a key reason not to consolidate irradiated fuel. Hardened, monitored, inspectable on-site or near site storage is the least dangerous option.

Consolidating the storage of irradiated fuel is integral to reprocessing. Consolidation would increase the probability of reprocessing, resulting in massive separation of plutonium with no way to ensure that it would not be diverted, officially or unofficially, for use in weapons of mass destruction. Reprocessing is unacceptable and has failed in this country. It is expensive and polluting, and weakens the global non-proliferation regime. It is not a viable waste management strategy, as reflected in the history at West Valley, the only commercial reprocessing site in the US (requiring \$5 -10 billion to “clean up”). Even the Blue Ribbon Commission report admitted that it does not significantly reduce the radioactivity of the waste that must be stored in a repository. In fact, there has been no resolution for the millions of gallons of toxic waste generated by irradiated fuel reprocessed in the United States decades ago. It makes more so-called “low level” waste.

Consolidated Storage does not honor the “polluter pay” principles established in the Nuclear Waste Policy Act of 1982

Exemption of waste generators from continued financial participation in responsibility for any waste generated prior to its emplacement in a bona fide location for permanent isolation from our environment is a striking change from the existing statute and is an important argument against Consolidated Storage.