Private ISF

From: Patricia A. Marida <patmarida@outlook.com>
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To: PrivateISF
Subject: Response to Request for Information on Private Initiatives to Develop Consolidated Interim Storage Facilities

Response to Request for Information on Private Initiatives to Develop Consolidated Interim Storage Facilities <http://www.energy.gov/sites/prod/files/2016/10/f33/Draft%20PFI%20RFI%20Rev%208_Final_For%20Posting.pdf>

REQUEST FOR INFORMATION

DOE seeks information on PIs for a consolidated ISF, whether pilot-scale or larger-scale, as an alternative or in addition to federal facilities sited using a consent based siting process. In particular, DOE seeks information in the following areas (all questions do not need to be addressed by prospective respondents):

1. What key factors should be considered to ensure that PIs, as part of the overall integrated nuclear waste management system, would provide a workable solution for interim storage of spent nuclear fuel and high-level waste? None.

Private Initiatives are about making money. Cutting corners to save money and the use of “alternate facts” would be guaranteed. Private Entities will gloss over problems. For example, in the past there was controversy over the changing of the Ogallala aquifer map by Waste Control Specialists in West Texas.

If enough problems occur, Private Entities will simply declare bankruptcy and the public will end up with the problems and the costs. At this point it would be hard to do remediation if shoddy work was done. An accident with radioactivity could result in a situation where costs would be so high that remediation could not be afforded. Or the results of a spill or explosion would make an area too dangerous to approach.

Even if the best technology were used, accidents could happen that could contaminate vast areas. The public must have oversight and control of high-level radioactive waste. This can only happen if the waste is stored in a monitored, retrievable place and never abandoned. It should be stored as safely as possible as close as safely possible to the site of origin. Moving the waste further than necessary for safety concerns is risky and dangerous. The Department must adhere to the Principles for Safeguarding Nuclear Waste at Reactors. The principles are on the website of the Physicians for Social Responsibility and they have a long list of signatories www.psr.org/nuclear-bailout/resources/principles-for-safeguarding.pdf <http://www.psr.org/nuclear-bailout/resources/principles-for-safeguarding.pdf> .

Principles for Safeguarding Nuclear Waste at Reactors

March 24, 2010

The following principles are based on the urgent need to protect the public from the threats posed by the current vulnerable storage of commercial irradiated fuel. The United States does not currently have a national policy for the permanent storage of high-level nuclear waste. The Obama administration has determined that the Yucca Mountain site, which has been mired in bad science and mismanagement, is not an option for geologic storage of nuclear waste. Unfortunately, reprocessing proponents have used this opportunity to promote reprocessing as the solution for managing our nuclear waste. Contrary to their claims, however, reprocessing is extremely expensive, highly polluting, and a proliferation threat, and will actually complicate the management of irradiated fuel. Nor will reprocessing obviate the need for, or "save space" in, a geologic repository.

The United States has a unique opportunity to re-evaluate our nuclear waste management plan. We can make wise decisions about safeguarding radioactive waste or go down the risky, costly, and proliferation prone path towards reprocessing.

The undersigned organizations' support for improving the protection of radioactive waste stored at reactor sites is a matter of security and is in no way an indication that we support nuclear power and the generation of more nuclear waste.

 Require a low-density, open-frame layout for fuel pools: Fuel pools were originally designed for temporary storage of a limited number of irradiated fuel assemblies in a low density, open frame configuration. As the amount of waste generated has increased beyond the designed capacity, the pools have been reorganized so that the concentration of fuel in the pools is nearly the same as that in operating reactor cores. If water is lost from a densely packed pool as the result of an attack or an accident, cooling by ambient air would likely be insufficient to prevent a fire, resulting in the release of large quantities of radioactivity to the environment. A low density, open-frame arrangement within fuel pools could allow enough air circulation to keep the fuel from catching fire. In order to achieve and maintain this arrangement within the pools, irradiated fuel must be transferred from the pools to dry storage within five years of being discharged from the reactor.

 Establish hardened on-site storage (HOSS): Irradiated fuel must be stored as safely as possible as close to the site of generation as possible. Waste moved from fuel pools must be safeguarded in hardened, on-site storage (HOSS) facilities. Transporting waste to interim away-from-reactor storage should not be done unless the reactor site is unsuitable for a HOSS facility and the move increases the safety and security of the waste. HOSS facilities must not be regarded as a permanent waste solution, and thus should not be constructed deep underground. The waste must be retrievable, and real-time radiation and heat monitoring at the HOSS facility must be implemented for early detection of radiation releases and overheating. The overall objective of HOSS should be that the amount of releases projected in even severe attacks should be low enough that the storage system would be unattractive as a terrorist target. Design criteria that would correspond to the overall objective must include: Resistance to severe attacks, such as a direct hit by high-explosive or deeply penetrating weapons and munitions or a direct hit by a large aircraft loaded with fuel or a small aircraft loaded with fuel and/or explosives, without major releases. Placement of individual canisters that makes detection difficult from outside the site boundary.

 Protect fuel pools: Irradiated fuel must be kept in pools for several years before it can be stored in a dry facility. The pools must be protected to withstand an attack by air, land, or water from a force at least equal in size and coordination

to the 9/11 attacks. The security improvements must be approved by a panel of experts independent of the nuclear industry and the Nuclear Regulatory Commission.

 Require periodic review of HOSS facilities and fuel pools: An annual report consisting of the review of each HOSS facility and fuel pool should be prepared with meaningful participation from public stakeholders, regulators, and utility managers at each site. The report must be made publicly available and may include recommendations for actions to be taken.

 Dedicate funding to local and state governments to independently monitor the sites: Funding for monitoring the HOSS facilities at each site must be provided to affected local and state governments. The affected public must have the right to fully participate.

 Prohibit reprocessing: The reprocessing of irradiated fuel has not solved the nuclear waste problem in any country, and actually exacerbates it by creating numerous additional waste streams that must be managed. In addition to being expensive and polluting, reprocessing also increases nuclear weapons proliferation threats.

2. How could a PI benefit:

a. the local community and state or Tribe in which an ISF is sited?

A liability, never a benefit.

b. neighboring communities?

A liability, never a benefit.

3. What type of involvement if any should the Department or other federal agency consider having with the PI and the community regarding organizational, structural, and contractual frameworks and why?

4. What are the benefits and drawbacks of a PI, compared to a federally-financed capital project resulting in a government-owned contractor-operated (GOCO) interim storage facility?

5. What assurances to the Government do you think would be appropriate, to ensure that SNF stored at a private ISF, would be managed effectively so as to contain costs to the Government?

6. What possibilities are there with respect to business models for a PI, and what are the benefits and disadvantages of those models?

7. How could a PI manage liabilities that might arise during the storage period?

8. What state/local/tribal authorizations/approvals would be needed? The DOE has always tried to foist nuclear testing and nuclear waste on the most vulnerable in our society—low income, people of color and Native Americans.

9. How can the Government continue to explore or implement the PI concept in a fair, open and transparent manner going forward? Stop PI now.

10. What, if any, supporting agreements might be expected between the Government and the host state/tribe/local community associated with a PI?

11. What other considerations should be taken into account? The welfare of people and the planet. The higher heat and increased radioactivity of high-burnup fuel. The fact that the canisters into which high-level nuclear waste is being put into are not monitorable, inspectable, or repairable. These canisters can fail in as little as 17 years. The Department has no way to handle the first leak, which would emit radioactivity that would make it too dangerous to approach. And DOE wants to hand these over to a private entity? Most of the people dealing with radioactive waste have little knowledge of the science of radioactivity or of the dangers the radioactivity or its technology pose.

12. Are there any alternative approaches to developing non-federally-owned facilities that might be proposed (e.g. how projects would be financed, anticipated regulatory and legal issues, etc.). If so, what are they, are there proposed solution, and how would the above questions be answered with respect to such approaches? NONE

Sincerely,

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