

Nuclear Decommissioning Citizens Advisory Panel
DRAFT Advisory Opinion for Discussion at 11.12.15 NDCAP Meeting
Submitted on 10.15.15

An Independent Spent Fuel Storage Installation Needs To Be Located Farther From Facilities That Are To Be Dismantled

BACKGROUND:

Currently, the Vermont Public Service Board has before it an open docket for the approval of an expanded Independent Spent Fuel Storage Installation (ISFSI) at the VY station. The proposal before the Board is for a second ISFSI immediately adjacent to the existing ISFSI, and thus adjacent to the plant that is to be decommissioned and dismantled.

It is widely acknowledged that dry fuel storage is superior to wet storage, and no parties to that docket oppose the ISFSI construction. Dry storage is widely considered to be superior in terms of safety and security and lower maintenance costs, and is an essential step toward the eventual dismantling of the facility.

Consistent with the above, Entergy/VY's Site Assessment Study (SAS), prepared in October 2014 as part of the settlement agreement negotiated with State agencies, stated that

"...we believe that moving all of the VYNPS spent nuclear fuel into robust dry fuel storage containers on a seismically-hardened Independent Spent Fuel Storage Installation (ISFSI) in the short term is in the best interest of all parties, and that will be our primary focus over the next several years." (SAS, October 2014, page 1)

All relevant Federal and industry plans, including ENVY's decommissioning plans specifically, are based in part on the eventual acceptance of spent nuclear fuel by the US Department of Energy (DOE) for long term storage at a yet to be designated site. Those DOE plans are nearly twenty years behind schedule and no resolution appears likely in the near term. A potentially complicating factor is the Nuclear Regulatory Commission "waste confidence rule" issued on August 26, 2014 that concludes that spent nuclear fuel can be safely managed in dry casks during short-term (up to 60 years,) long-term (100 years after the initial 60 years), and indefinite timeframes. While the rule does not automatically authorize, license or otherwise permit nuclear power plant licensees to store spent fuel for any length of time, it does recognize the possibility that a geologic repository for permanent disposal of spent nuclear fuel might never be built. (<http://pbadupws.nrc.gov/docs/ML1418/ML14188B749.pdf>)

ENVY and State agency plans are based in part on the assumption that spent fuel will be removed in a timely manner, which is not supported by DOE progress or other events to date. In this regard the SAS states that

"...ENVY assumes the [US Department of Energy] DOE will start transferring spent fuel from the site beginning in 2016 and will complete removal of all fuel from VYNPS in 2052." (SAS, October 2014, page 24)

The 2016 date is not even remotely likely, and the 2052 target also may be unlikely.

The presence of spent nuclear fuel in close proximity to the facilities to be dismantled could present significant obstacles, both physical and financial, to the planned decommissioning and dismantling process. In this regard, the SAS states that

“At the time decontamination and dismantlement are scheduled to start, ENVY assumes all spent fuel will have been removed from the site and therefore will not affect the decommissioning activities.” (SAS, October 2014, page 24)

The amount of funds in the Nuclear Decommissioning Trust (NDT) will be a major determining factor in when dismantlement is able to begin. Regarding the amount of funds in the NDT and its relationship to the above referenced schedule, the SAS states:

“Consistent with the settlement agreement between ENVY and State of Vermont agencies, ENVY agreed to initiate the actual decontamination and dismantlement process when it was determined that there were adequate funds in the NDT.” (SAS, October 2014, page 58)

ENVY has in the past acknowledged that circumstances likely would require construction of an ISFSI removed from the location currently in use and currently proposed for the second ISFSI. In 2007, ENVY’s counsel stated in a letter that "Dry fuel storage plans following shutdown in 2032 will consist of construction of a new storage facility outside the current protected area large enough to accommodate all fuel from the existing pad as well as the spent fuel pool." Earlier, in 2006, the Public Service Board recognized this need when it stated "Certainly, other possible locations exist within the Vermont Yankee site that could accommodate a storage facility. Entergy VY will eventually need to construct a larger storage facility in such a location.”

RECOMMENDATION:

In light of the above considerations, the Vermont Nuclear Decommissioning Citizens Advisory Panel recommends that the Public Service Board give serious consideration to the likely and perhaps predictable need for yet a third ISFSI in order to allow complete dismantling and site restoration prior to the USDOE taking spent fuel from the site, should the second ISFSI be constructed as proposed. A third ISFSI would present yet another significant drain on the NDT if ENVY is allowed to construct it using funds from the NDT, which may well be the case. It therefore would be prudent to consider construction of an expanded ISFSI that is more removed from the upcoming demolition activities now, and whether that might result in a more effective and less expensive long term resolution of the spent fuel storage issue.