

October 7, 2020

U.S. Nuclear Regulatory Commission
Office of Administration
Mail Stop: TWFN-7-A60M
Washington, DC 20555-0001

ATTN: Program Management, Announcements and Editing Staff

Subject: Docket ID NRC-2016-0231
American Nuclear Society (ANS) Comments on NUREG-2239,
Environmental Impact Statement for Interim Storage Partners LLC's
License Application for a Consolidated Interim Storage Facility for Spent
Nuclear Fuel in Andrews County, Texas

Dear Sir or Madam:

On behalf of approximately 10,000 nuclear technology professionals that make up the American Nuclear Society (ANS), I am pleased to provide comments on the Nuclear Regulatory Commission's (NRC's) draft environmental impact statement (EIS) for the proposed Interim Storage Partners LLC (ISP) Consolidated Interim Storage Facility (CISF) in Andrews County, Texas. ANS members are involved in many applications of nuclear technology for the betterment of humanity, including the clean generation of reliable electricity using nuclear power plants. The radioactive by-product of electricity generation, used nuclear fuel (UNF) [also referred to as spent nuclear fuel (SNF)], has been safely stored, primarily on nuclear power plant sites, since the 1950s. ISP has applied for a license to construct and operate a CISF in Texas that would allow collection and storage of UNF in a centralized location rather than numerous locations around the country. The CISF would not obviate the need for a permanent repository for disposal of UNF and high-level radioactive waste, but it would enhance the management of UNF and allow shutdown reactor sites to be fully decommissioned and repurposed for other uses. Thus the ISP CISF, if approved, constructed, and operated, could be a beneficial component of the country's nuclear waste management system.

The NRC, in its role as regulator of commercial nuclear facilities, evaluated the environmental impacts of the proposed ISP CISF and documented the results of that evaluation in draft NUREG-2239. ANS offers the following comments on the draft EIS.

General

The EIS provides a thorough evaluation of the environmental impacts of the proposed facility and related actions. ANS agrees with the preliminary NRC staff recommendation that “... unless safety issues mandate otherwise, the proposed license be issued to ISP to construct and operate a CISF at the proposed location to temporarily store up to 5,000 MTUs [5,500 short tons] of SNF for a licensing period of 40 years (Phase 1).” (Abstract, p. iii).

Safety of UNF Storage

The NRC found that CISF impacts to public and occupational health would be “SMALL.” ANS agrees with this finding, and it is supported by the fact that UNF has been stored safely in the United States and abroad since the 1950s. ANS Position Statement #76 “Interim Storage of Used or Spent Nuclear Fuel” (February 2017) discusses the excellent safety record associated with wet and dry storage of UNF.

Safety of UNF Transportation

The NRC found that the impacts of transportation of UNF to the CISF and, eventually, from the CISF to a repository for permanent disposal would be “SMALL.” ANS agrees with this finding, and it is supported by the fact that UNF has been transported safely in the United States and abroad since the 1950s. ANS Position Statement #18 “The Safety of Transporting Radioactive Materials” (November 2017) discusses the excellent safety record associated with transportation of UNF.

Benefits of a CISF

Given the current stalemate over permanent disposal of UNF, development of CISFs such as the proposed ISP facility would enhance the management of UNF in the United States. ANS Position Statement #76 states:

Until recycling and/or geologic disposal can be accomplished, ANS also supports the development of consolidated away from reactor interim storage for UNF – in most cases using the same proven technology now deployed at reactor sites. Consolidation could result in a more efficient storage system (as aging management and security capabilities could be combined for a larger number of systems). It would also allow land which is currently being used to store UNF at decommissioned reactors to be returned to surrounding communities for other purposes.

The draft EIS also found that the proposed facility would bring SMALL to MODERATE socioeconomic benefits to the region surrounding the proposed project area (Executive Summary, p. xxxiii). ANS notes that, as a general matter, nuclear facilities throughout the country provide employment and other economic benefits to their host communities.

Potential Enhancements

ANS offers the NRC the following suggestions for consideration as NUREG-2239 is finalized.

- Abstract, p. iii, ¶1, sentence 1. Spent nuclear fuel is listed separately from spent mixed oxide (MOX) fuel. Spent MOX fuel is a subset of spent nuclear fuel, not a different category of material.

- Abstract, p. 3, ¶1, sentence 4. Throughout the report NRC should use units of “metric tons heavy metal” (MTHM) rather than “metric tons of uranium” (MTU) when referring to quantities of UNF. Strictly speaking, MTU is applicable only to low enriched uranium (LEU) fuel. MTHM is valid for MOX fuel as well as LEU fuel.
- Executive Summary, p. xviii, ¶2 under “Purpose and Need.” Here and throughout the document, rather than referring to SNF and MOX fuel separately and implying that used MOX fuel is not SNF, you should simply refer to SNF, which includes used MOX fuel.
- Executive Summary, pp. xxiv. In the top paragraph the NRC discusses “public dose risk” in units of Sv, but those units are appropriate for dose, not dose risk. A dose risk number would be Sv per year.
- Executive Summary, p. xxiv, lines 15-17. The first sentence of the paragraph discusses “occupational injuries and public traffic fatalities” associated with “incident-free SNF transportation.” If the transportation is incident-free, there should be no injuries or fatalities.
- Executive Summary, p. xxxiv, lines 31-33. The document states “Workers and the public could be exposed to low levels of background radiation or nonradiological emissions during the construction stage.” The statement is repeated in the body of the report (Section 4.13.1.1, p. 4-81, lines 21-22). ANS sees no need to state that people will be exposed to background radiation in this EIS, or any other EIS. It is, in fact, a certainty – workers and the public will always be exposed to background radiation. Background radiation is a fact of life and it is not a discriminator among alternatives.
- Executive Summary, p. xxxv. Under “Public and Occupational Health,” when discussing operational activities the NRC states on lines 14-15 “the radiological impacts would include expected occupational and public exposures to low levels of radiation.” The NRC goes on to summarize anticipated occupational exposures but says nothing quantitative about public exposures in the Executive Summary. The reader is left to speculate about doses to the public. In fact, public exposures would be negligible, as discussed in Section 4.13.1.2 of the report (pp. 4-84 and 4-85). For the operations stage of Phase 1 ISP calculated the annual dose to the nearest residents to be 4.83×10^{-16} mSv (4.83×10^{-14} mrem), which is essentially zero dose. ANS recommends that the NRC address public exposures quantitatively in the Executive Summary.

Overall, ANS commends the quality and scope of the draft EIS for the ISP CISF. If you have any additional questions, or would like further information, please contact Steve Nesbit of the ANS Nuclear Waste Policy Task Force at (704) 578-5817 or snorbit@ans.org.

Respectfully,



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American Nuclear Society