



Tennessee Valley Authority
1101 Market Street, LP 3R
Chattanooga, Tennessee 37402-2801

R. M. Krich
Vice President
Nuclear Licensing

May 12, 2010

10 CFR 72.4

ATTN: Document Control Desk
Director, Spent Fuel Project Office
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Browns Ferry Nuclear Plant, Units 1, 2, and 3
Facility Operating License Nos. DPR-33, DPR-52, and DPR-68
NRC Docket Nos. 50-259, 50-260, 50-296, and 72-052

Sequoyah Nuclear Plant, Units 1 and 2
Facility Operating License Nos. DPR-77 and DPR-79
NRC Docket Nos. 50-327, 50-328, and 72-034

**Subject: Tennessee Valley Authority - Response to Request for Information
Regarding NRC Enforcement Discretion Letter No. EA-09-190**

- References:
1. NRC Letter to Holtec International, "Response to Holtec International (Holtec) Reply to EA-09-190," dated January 12, 2010
 2. NRC Teleconference Conversation Record, "Follow-up Actions Regarding NRC Enforcement Discretion Letter No. EA-09-190," dated December 1, 2009

By letter dated January 12, 2010 (Reference 1), the Nuclear Regulatory Commission (NRC) provided a status of actions taken to date in response to an NRC notice of violation of 10 CFR 72.48, "Changes, tests, and experiments," and associated enforcement discretion. NRC discussed the review of supplemental information to support continued safe operation of the affected casks and the need for additional site-specific information to ensure that the affected casks will continue to meet all regulatory requirements. This additional site-specific information is described in Reference 2.

Both Independent Spent Fuel Storage Installations (ISFSIs) at Browns Ferry Nuclear Plant (BFN) and the Sequoyah Nuclear Plant (SQN), operating under terms of the 10 CFR 72 general license, have Multi-Purpose Canisters (MPCs) that are the subject of this

U.S. Nuclear Regulatory Commission
Page 2
May 12, 2010

enforcement discretion. Enclosures 1 and 2 provide the information requested in Reference 2 for the BFN and SQN, respectively.

The Tennessee Valley Authority (TVA) understands from recent information that Holtec has recently performed helium leak tests on more than 125 subject unloaded MPCs deployed to utilities, including BFN and SQN, and at the Holtec Manufacturing Division. The information indicates that all tested subject MPCs were found to meet the ANSI N14.5-1997 leak test criterion without exception. This information demonstrates, with high probability and confidence levels, that there is a degree of package containment sufficient to preclude any significant release of radioactive materials. Also, as presented in the enclosures, TVA has not detected any increase in offsite dose related to the SQN or BFN ISFSIs. Based on this information, TVA considers that reasonable assurance exists even without the performance of the fabrication helium leak test that the subject MPCs are not effluent contributors and, therefore, compliance with 10 CFR 72 Certificate of Compliance No. 1014 and 10 CFR 72.104 continues to be met.

There are no regulatory commitments associated with this submittal.

If you have any questions regarding this matter, please contact Rod Cook at (423) 751-2834.

Respectfully,



R. M. Krich

Enclosures:

1. Response to Nuclear Regulatory Commission, Request for Information Regarding EA-09-190, Browns Ferry Nuclear Plant
2. Response to Nuclear Regulatory Commission, Request for Information Regarding EA-09-190, Sequoyah Nuclear Plant

ENCLOSURE 1

RESPONSE TO NUCLEAR REGULATORY COMMISSION REQUEST FOR INFORMATION REGARDING EA-09-190 BROWNS FERRY NUCLEAR PLANT

NRC Request 1

Information that the thermal heat load for the spent fuel and internal helium conditions that had been loaded into the MPC's was bounded by the thermal and over pressure helium analyses provided by Holtec in their corrective action response to the NRC Enforcement Discretion letter dated August 5, 2009; for MPC's loaded above 21 kilowatts (kW) the NRC requested that the site provide information regarding the length of time that would elapse before the spent fuel heat load would decay below 21 kW.

TVA Response 1

One subject Multi-Purpose Canister (MPC) is in storage at the Browns Ferry Nuclear Plant (BFN) Independent Spent Fuel Storage Installation (ISFSI.) This MPC was loaded in October 2007, under Certificate of Compliance No. 1014, Amendment No. 1 and with a maximum heat load of 20.708 kW. Accordingly, this MPC is bounded by the Holtec thermal and over pressure helium analyses submitted to NRC by Holtec International on September 2, 2009.

NRC Request 2

Information that the site radiological monitoring programs had not detected any adverse effluent conditions associated with the use of the MPC's, and that all measured site radiological parameters were within the limits provided in 10 CFR 72.104.

TVA Response 2

Tennessee Valley Authority (TVA) has reviewed the applicable annual radiological environmental operating report and annual radioactive effluent release report. The results of the review of this information show no discernable increase in offsite dose level attributed to the operation of the ISFSI, nor the detection of any adverse effluent conditions associated with the cited MPC. Based on the results of this information, BFN remains within the limits of 10 CFR 72.104.

NRC Request 3

Information that the sites dispositioned the deficiency through their non-conforming and corrective action process and determined that continued use of the MPC's was found to be acceptable.

TVA Response 3

BFN initiated Problem Evaluation Report (PER) No. 178216 on August 5, 2009, in accordance with TVA's Corrective Action Program, to address the failure to perform helium leak testing during fabrication of MPCs. Another PER No. 178046 addresses corrective actions for both BFN and SQN. TVA has determined that the one cited MPC remains operable based on initial information provided by Holtec International on August 7, 2009. This determination was further supported by the information provided to NRC by Holtec International on September 2, 2009.

ENCLOSURE 2

RESPONSE TO NUCLEAR REGULATORY COMMISSION REQUEST FOR INFORMATION REGARDING EA-09-190 SEQUOYAH NUCLEAR PLANT

NRC Request 1

Information that the thermal heat load for the spent fuel and internal helium conditions that had been loaded into the MPC's was bounded by the thermal and over pressure helium analyses provided by Holtec in their corrective action response to the NRC Enforcement Discretion letter dated August 5, 2009; for MPC's loaded above 21 kilowatts (kW) the NRC requested that the site provide information regarding the length of time that would elapse before the spent fuel heat load would decay below 21 kW.

TVA Response 1

Twelve subject Multi-Purpose Canisters (MPCs) are in storage at the Sequoyah Nuclear Plant (SQN) Independent Spent Fuel Storage Installation (ISFSI). These MPCs were loaded between March 2007 and December 2008, under Certificate of Compliance No. 1014, Amendment No. 2.

Of the 12 MPCs, 7 MPCs have been loaded with a heat load above 21 kW. Six MPCs remain above 21 kW. A heat load of 24.212 kW currently represents the MPC with the highest heat load. In accordance with the Holtec analysis submitted by Holtec International to NRC on September 2, 2009, these casks continue to meet the thermal analysis in their associated Final Safety Analysis Report.

Tennessee Valley Authority (TVA) has determined that the above cited highest heat load MPC will be below 21 kW around January 2017.

NRC Request 2

Information that the site radiological monitoring programs had not detected any adverse effluent conditions associated with the use of the MPC's, and that all measured site radiological parameters were within the limits provided in 10 CFR 72.104.

TVA Response 2

TVA has reviewed the applicable annual radiological environmental operating report and annual radioactive effluent release report. The results of the review of this information show no discernable increase in offsite dose level attributed to nor the detection of any adverse effluent conditions associated with ISFSI operation. Based on the results of this information, SQN remains within the limits of 10 CFR 72.104.

NRC Request 3

Information that the sites dispositioned the deficiency through their non-conforming and corrective action process and determined that continued use of the MPC's was found to be acceptable.

TVA Response 3

SNQ initiated Problem Evaluation Report No. 178046 on August 3, 2009, in accordance with TVA's Corrective Action Program, to address the failure to perform helium leak testing during fabrication of MPCs. TVA has determined that the 12 cited MPCs remain operable based on initial information provided by Holtec International on August 7, 2009. This determination was further supported by the information provided to NRC by Holtec International on September 2, 2009.