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Energy to Serve Your World

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NL-10-0015

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555-0001

Edwin I. Hatch Nuclear Plant
Joseph M. Farley Nuclear Plant
Follow-up Actions - NRC Enforcement Discretion Letter EA-09-190,
Holtec Elimination of MPC Shop Helium Leak Rate Test

Ladies and Gentlemen:

The Nuclear Regulatory Commission (NRC) notified Holtec International (Holtec) regarding a violation of NRC requirements by letter dated August 6, 2006. Specifically, Holtec eliminated shop helium leak testing of the multi-purpose canister (MPC) during fabrication without prior NRC approval. By letter dated September 2, 2009, Holtec provided a response to the violation which included analysis that supports continued use of loaded MPCs that were not tested during fabrication.

Southern Nuclear Operating Company (SNC) is the licensed operator of the Edwin I. Hatch Nuclear Plant (Hatch) and the Joseph M. Farley Nuclear Plant (Farley) and is the general licensee for the independent spent fuel storage installations (ISFSIs) at these facilities. SNC currently has loaded MPCs in storage in both the Hatch and Farley ISFSIs that were not helium leak tested during fabrication.

A teleconference was held on December 1, 2009, with NRC, Holtec, and affected licensees participating in the call. In this call, the NRC requested that general licensees with MPCs that were not helium leak tested during fabrication provide information related to their site-specific determinations that the MPCs could remain in service. Accordingly, the requested information is provided in Enclosure 1 and 2 for Hatch and Farley, respectively.

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This letter contains no NRC commitments. If you have any questions, please advise.

Sincerely,



Mark J. Ajluni
Manager – Nuclear Licensing

MJA/TWS/lac

Enclosure:

cc: Southern Nuclear Operating Company
Mr. J. T. Gasser, Executive Vice President
Mr. J. R. Johnson, Vice President – Farley
Mr. D. R. Madison, Vice President – Hatch
Ms. P. M. Marino, Vice President – Engineering
RType: CFA04.054; CHA02.004

U. S. Nuclear Regulatory Commission
Mr. L. A. Reyes, Regional Administrator
Mr. R. E. Martin, NRR Project Manager – Farley
Ms. D. N. Wright, NRR Project Manager – Hatch
Mr. E. L. Crowe, Senior Resident Inspector – Farley
Mr. J. A. Hickey, Senior Resident Inspector – Hatch

Edwin I. Hatch Nuclear Plant
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Enclosure 1

NRC Requested Information - Hatch

NRC Requested Information – Hatch

A teleconference was held by the NRC with Holtec and general licensees with loaded MPCs that were not subjected to helium leak testing during fabrication for the purpose of discussing continued use of the affected MPCs. The following list, taken from the NRC Conversation Record (ML09351000082), identifies the information requested by the NRC. The requested information for Hatch is provided immediately following the NRC requested information below.

1. **NRC Request:**

Information that the thermal heat load for the spent fuel and internal helium conditions that had been loaded into the MPCs 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 6, 2009; for MPCs 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.

SNC Response:

Hatch currently has eight MPCs loaded with spent fuel in the ISFSI that were not helium leak tested during fabrication. Four of these casks were loaded during the summer 2007 campaign in accordance with the requirements of CoC 1014, Amendment 2, and four were loaded during the summer 2008 campaign to CoC Amendment 3. The maximum heat load for these MPCs is 19.1 kW. Accordingly, these casks are bounded by the thermal and over pressure helium analyses provided by Holtec letter to the NRC dated September 2, 2009.

2. **NRC Request:**

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

SNC Response:

SNC has reviewed the results of the Annual Radiological Environmental Operating Reports since the beginning of ISFSI storage operations in 2000. The results of this review determined that there is no discernable increase in dose to the public as the result of storage of casks that were not helium leak tested. Results contained in the Annual Radiological Environmental Operating Report for this period were within the limits specified in 10 CFR 72.104. Based on: (1) absence of identified leakage from MPCs that have been previously tested; and (2) use of the same stringent fabrication requirements; leakage from these casks is not

Enclosure 1

NRC Requested Information – Hatch

considered credible. Accordingly, these casks are bounded by the existing SNC analysis for compliance with 10 CFR 72.104.

3. **NRC Request:**

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

SNC Response:

Condition Report 2009107859 was entered for Holtec failure to perform the required helium leak test during fabrication. A prompt determination of operability was prepared in conjunction with this CR and a determination made that the affected MPCs would perform their intended safety function. This determination was based on the analysis contained in Holtec Report HI-2094407, summarized in the Holtec response to the violation dated September 2, 2009.

Edwin I. Hatch Nuclear Plant
Joseph M. Farley Nuclear Plant
Follow-up Actions - NRC Enforcement Discretion Letter EA-09-190,
Holtec Elimination of MPC Shop Helium Leak Rate Test

Enclosure 2

NRC Requested Information - Farley

Enclosure 2

NRC Requested Information – Farley

A teleconference was held by the NRC with Holtec and general licensees with loaded MPCs that were not subjected to helium leak testing during fabrication for the purpose of discussing continued use of the affected MPCs. The following list, taken from the NRC Conversation Record (ML09351000082), identifies the information requested by the NRC. The requested information for Farley is provided immediately following the NRC requested information below.

1. **NRC Request:**

Information that the thermal heat load for the spent fuel and internal helium conditions that had been loaded into the MPCs 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 6, 2009; for MPCs 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.

SNC Response:

Farley currently has four MPCs loaded with spent fuel in the ISFSI that were not helium leak tested during fabrication that were loaded during the summer 2007 campaign in accordance with the requirements of CoC 1014, Amendment 3. The maximum heat load for these MPCs is 26.5 kW. Accordingly, these casks are bounded by the thermal and over pressure helium analyses provided by Holtec letter to the NRC dated September 2, 2009. The heat load for these casks is projected to be less than 21 kW by December 31, 2014.

2. **NRC Request:**

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

SNC Response:

SNC has reviewed the results of the Annual Radiological Environmental Operating Reports since the beginning of ISFSI storage operations in 2005. The results of this review determined that there is no discernable increase in dose to the public as the result of storage of casks that were not helium leak tested. Results contained in the Annual Radiological Environmental Operating Report for this period were within the limits specified in 10 CFR 72.104. Based on: (1) absence of identified leakage from MPCs that have been previously tested; and (2) use of the same stringent fabrication requirements; leakage from these casks is not

NRC Requested Information – Farley

considered credible. Accordingly, these casks are bounded by the existing SNC analysis for compliance with 10 CFR 72.104.

3. **NRC Request:**

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

SNC Response:

Condition Report 2009109653 was entered for Holtec failure to perform the required helium leak test during fabrication. A prompt determination of operability was prepared in conjunction with this CR and a determination made that the affected MPCs would perform their intended safety function. This determination was based on the analysis contained in Holtec Report HI-2094407, summarized in the Holtec response to the violation dated September 2, 2009.