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September 26, 2007

Docket Nos.: 50-321  
50-366  
72-36

NL-07-1740

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

Edwin I. Hatch Nuclear Plant  
Independent Spent Fuel Storage Installation  
Validation of HI-STORM 100 System Heat Transfer Characteristics

Ladies and Gentlemen:

Certificate of Compliance (CoC) 1014, Amendment 2, Condition 9, Special Requirements for First Systems In Place, requires a letter report be provided to the NRC validating the heat transfer characteristics for the first HI-STORM 100 cask system placed into service with a heat load greater than or equal to 10 kW and subsequent cask systems that have a heat load that exceeds the previously validated heat load by more than 2 kW. By letter dated July 28, 2004, Energy Northwest provided a letter report for MPC-68 serial number 92 and HI-STORM 100 serial number 100-120, with a heat load of 17.1 kW. The letter also enclosed the report prepared by Holtec International validating the analytic methods and predicted thermal behavior for the cask system.

Subsequently, SNC loaded MPC-68 serial number 179 and HI-STORM 100 serial number 100-254, containing Plant Hatch spent nuclear fuel with a heat load of 17.9 kW on June 29, 2007. Per CoC 1014, Condition 9, no additional testing is required for a system after it has been tested at a heat load equal to or greater than 16 kW. Therefore, no further heat load validation testing is required for the HI-STORM 100 cask system.

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

Sincerely,

A handwritten signature in black ink, appearing to read "B. J. George". The signature is written in a cursive style with a long horizontal line extending to the right.

B. J. George  
Manager, Nuclear Licensing

BJG/MNW/daj

cc: Southern Nuclear Operating Company  
Mr. J. T. Gasser, Executive Vice President  
Mr. D. R. Madison, Vice President – Hatch  
Mr. D. H. Jones, Vice President – Engineering  
RTYPE: CHA02.004

U. S. Nuclear Regulatory Commission  
Dr. W. D. Travers, Regional Administrator  
Mr. R. E. Martin, NRR Project Manager – Hatch  
Mr. J. A. Hickey, Senior Resident Inspector – Hatch  
Mr. J. R. Hall, NMSS Project Manager