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August 13, 2008

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

Subject: Duke Energy Carolinas, LLC
Oconee Nuclear Site, Units 1, 2, and 3
Independent Spent Fuel Storage Installation (ISFSI)
General License Cask Certificate of Compliance,
Docket No.: 72-1004
30-day Report Due to Higher Canister Heat Loading

In accordance with the subject Certificate of Compliance (CofC) sections, Duke Energy Carolinas, LLC (Duke), hereby submits the subject report to the Commission. NUHOMS Model 102 Horizontal Storage Module (HSM) E-43 was placed in service at the Oconee Nuclear Site on August 1, 2008. The total spent fuel decay heat load of the NUHOMS 24PHBL Dry Shielded Canister (DSC) was 21.51 kilowatts (kW), which exceeded the maximum heat load of previously loaded canisters and, pursuant to General Requirement 1.1.7, a 30-day report is required whenever this situation occurs (up to 24 kW).

The heat transfer characteristics were determined for the loaded HSM as required by Technical Specification 1.2.8 of the subject CofC. The difference between the average HSM inlet and outlet temperatures was used to calculate a temperature rise. This value was compared to a predicted maximum temperature rise (as a function of average inlet temperature and DSC heat load). The methodology for this predicted temperature rise is documented in the General License Certified Safety Analysis Report for the HSM, and in Trans-Nuclear West calculation NUH004.0420.

The calculated temperature rise for the HSM is plotted with the predicted temperature difference rise for a 21.51 kW DSC in Attachment 1. Temperature measurements and the calculated temperature rise for the HSM are shown in Attachment 2. Since the equilibrium temperature rises measured do not exceed the calculated values, the HSM and DSC have been verified to be performing as designed.

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If there are any questions regarding this registration, please contact Stephen C. Newman, Oconee Regulatory Compliance Lead Engineer, at (864) 885-4388.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Dave Baxter', with a stylized, elongated horizontal stroke extending to the right.

Dave Baxter
Vice President,
Oconee Nuclear Site

Attachments:

1. HSM E-43 Temperature Rise (calculated vs. predicted)
2. Heat Transfer Characteristics for HSM E-43 at ONS

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cc:

Mr. Luis Reyes, Regional Administrator
Region II

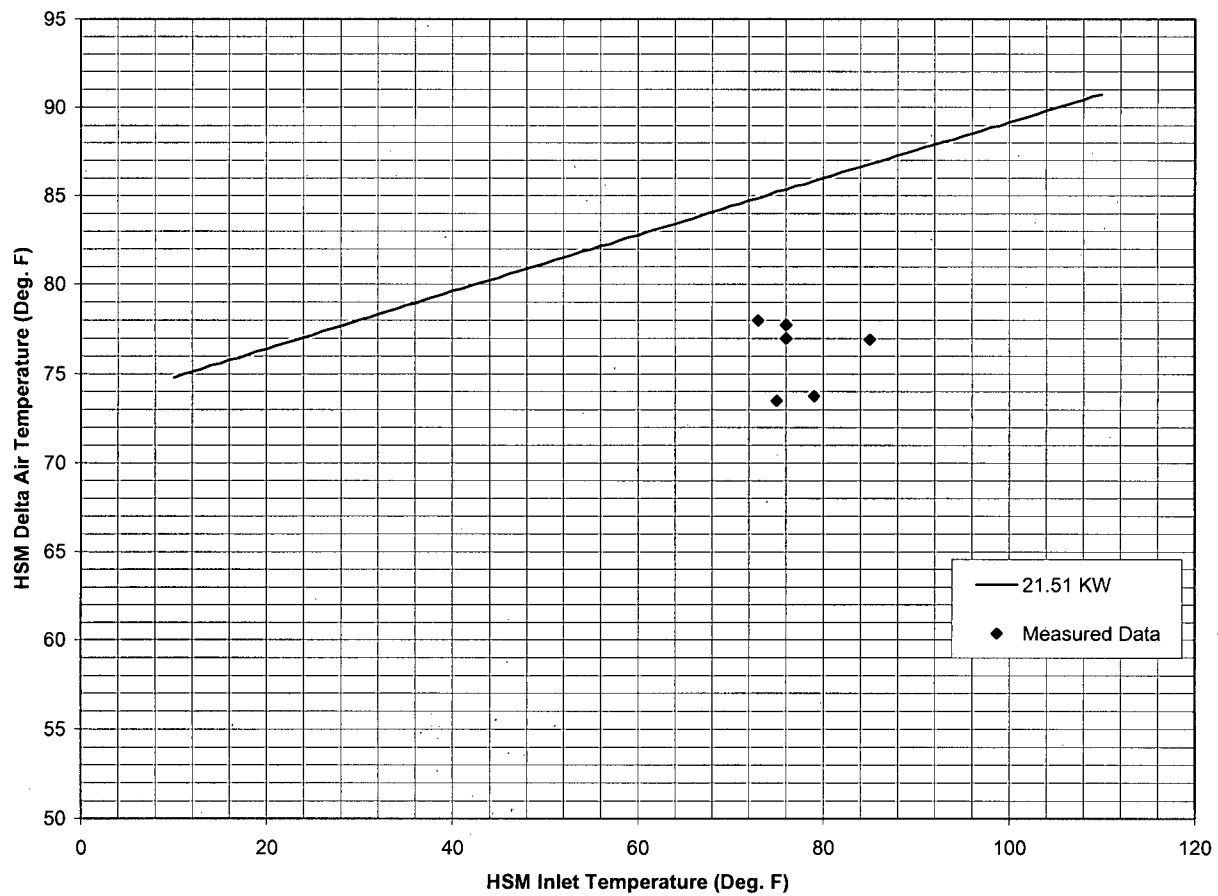
Mr. Andy Hutto, Senior Resident Inspector
Oconee Nuclear Site

Mr. Lenny Olshan, Project Manager
Office of Nuclear Reactor Regulation

Senior Fuel Facility Inspector, Region II

ATTACHMENT 1

HSM E-43 Temperature Rise (calculated vs. predicted)



ATTACHMENT 2

Heat Transfer Characteristics for HSM E-43 at ONS

Date	Avg. Inlet Temperature (°F)	Avg. Outlet Temperature (°F)	Temperature Rise (°F)	Calculated Rise (°F)
8/1/08	84.6	161.55	76.92	86.72
8/2/08	76	153.75	77.75	85.32
8/3/08	73.25	151.25	78	84.87
8/4/08	78.75	152.5	73.75	85.77
8/5/08	76.75	153.75	77	85.47
8/6/08	75.5	149	73.5	85.27