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July 29, 2008

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D. C. 20555

Subject: Duke Energy Carolinas, LLC
Oconee Nuclear Station, Unit 1
Docket Number 50-269
Inspection Results Required Per First Revised NRC Order (EA-03-009)

By letter dated February 20, 2004, the NRC issued the First Revised NRC Order (EA-03-009), "Establishing Interim Inspection Requirements for Reactor Vessel Heads at Pressurized Water Reactors." The Order imposed requirements for pressurized water reactor licensees to inspect reactor pressure vessel heads and related penetration nozzles and to submit a report detailing the inspection results within sixty days after returning the unit to operation.

Duke Energy Carolinas, LLC, performed the required inspections on Oconee Unit 1 during the End-of-Cycle 24 Refueling Outage. The attachment to this letter provides the required reactor pressure vessel head inspection results.

This letter and its attachment do not contain any NRC commitments.

If there are any questions concerning this information, please contact Corey Gray at (864) 886-6325.

Very truly yours,

Dave Baxter,
Site Vice President

Attachment

A101
NRR

Dave Baxter affirms that he is the person who subscribed his name to the foregoing statement, and that all the matters and facts set forth herein are true and correct to the best of his knowledge.

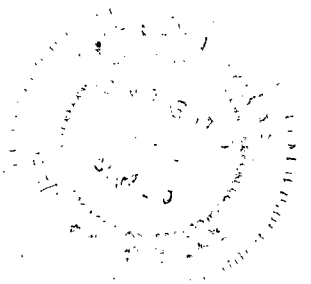
Dave Baxter, Vice President
Oconee Nuclear Site

Subscribed and sworn to me: July 29, 2008
Date

Ruth H Joyner
Notary Public

My Commission Expires: June 15, 2016
Date

SEAL



cc: Luis Reyes, Regional Administrator,
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Susan Jenkins, Manager
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Attachment

Oconee Nuclear Station
Unit 1 End-of-Cycle 24 Reactor Pressure Vessel Head (RPVH) Inspection Results Report

During the Oconee Unit 1 End-of-Cycle 24 Refueling Outage, Duke performed inspections of the RPVH in accordance with the schedule required by the First Revised NRC Order EA-03-009, dated February 20, 2004.

The susceptibility of the RPVH to Primary Water Stress Corrosion Cracking (PWSCC) related degradation, as represented by a value of Effective Degradation Years (EDY), was calculated and compared to the criteria of the Order. The Oconee Unit 1 RPVH remains in the Replaced Category.

As required by the Order, a Bare Metal Visual (BMV) examination of 100% of the RPVH outer surface, including 360° around each RPVH penetration nozzle, was performed. This examination found no indications of primary coolant system leakage or wastage of the RPVH or nozzle penetrations.

The inspection was performed through the nine access ports in the RPVH service structure support skirt. The general cleanliness of the head was such that the source of any leakage could be readily identified. As stated, there were no indications of primary coolant system leakage. However, evidence of leakage from the control rod drive cooling water system was present on the head surface. This cooling water system (CC) utilizes sodium molybdate as a corrosion inhibitor that, when dried, leaves a surface residue, as it did in this situation. Samples of the deposits were taken for chemical analysis and were confirmed to be consistent with the sodium molybdate additive.

All CC leakage deposits were removed (with the exception of minor staining and small particles around the CRDM penetrations) subsequent to this examination. Any primary system leakage will be readily visible during future inspections.