Progress Energy

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Serial: HNP-07-068
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U.S. Nuclear Regulatory Commission
ATTENTION: Document Control Desk
Washington, DC 20555

SHEARON HARRIS NUCLEAR POWER PLANT, UNIT NO. 1
DOCKET NO. 50-400/LICENSE NO. NPF-63
10-DAY SPECIAL REPORT
OF THE METAL IMPACT MONITORING SYSTEM

Ladies and Gentlemen:

In accordance with the Technical Specifications 6.9.2, the Harris Nuclear Plant of Carolina Power and Light Company (CP&L), doing business as Progress Energy Carolinas, Inc., submits the enclosed 10-day special report concerning two redundant channels of the Metal Impact Monitoring System (MIMS).

This document contains no new Regulatory Commitments.

Please refer any question regarding this submittal to Mr. Dave Corlett, Supervisor – Licensing and Regulatory Programs at (919) 362-3137.

Sincerely,

Enclosure

c:
Mr. P. B. O'Bryan, NRC Senior Resident Inspector
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Enclosure to SERIAL: HNP-07-068

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Cause of the Malfunction:

Channels #754 and #755 are the primary and secondary monitoring channels, respectively, for the 'A' Steam Generator region of the Metal Impact Monitoring System (MIMS). On April 5, 2007, both of these MIMS channels were declared inoperable due to static on the channels. With both MIMS channels in a region inoperable for more than 30 days, plant procedure PLP-114, Relocated Technical Specifications and Design Basis Requirements, Attachment 8, requires a special report within the next 10 days pursuant to Technical Specifications 6.9.2 outlining the cause of the malfunction and plans for restoring the channels to operable status.

Each metal impact monitor channel consists of an accelerometer sensor, a field-mounted preamplifier, interconnecting cable, signal conditioner, alarm processor, tape recorder, and audio circuits. The accelerometer sensor, field-mounted preamplifier, and a portion of the interconnecting cable are located in containment in the steam generator cubicle, which is not accessible during normal power operation. The signal conditioner, alarm processor, tape recorder, and audio circuits are located in the main control room.

Troubleshooting of Channel #754 found that the most probable source of the static on this channel was a component inside containment. Measurement of the signal leads from the field indicated that an unintended ground was present. However, to conclusively isolate the location of the ground, the signal wiring needs to be disconnected from the field-mounted preamplifier. This component is located inside containment in a location not accessible during normal power operation.

Troubleshooting of Channel #755 determined that the most probable source of the static on this channel was also a component inside containment because the field cable for this channel was swapped to a known good signal conditioner, but this action did not correct the condition. The equipment vendor was contacted, and they indicated that this condition was indicative of a component failure in the field-mounted preamplifier, which is located inside containment in a location not accessible during normal power operation.

Plans for Restoring the Channels to Operable Status:

Work orders have been generated to restore the channels to operable status during the upcoming refueling outage 14 (RFO-14) in the fall 2007. This work will take place while the plant is shutdown, allowing access to the components inside containment in the steam generator cubicle.