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SOUTHERN COMPANY

August 18, 2010

Docket Nos.: 50-424

NL-10-1536

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

Vogtle Electric Generating Plant, Unit 1
Special Report 2010-001-00, Inoperable Radiation Monitor 1RE-006

Ladies and Gentlemen:

In accordance with the Requirements of Technical Specification 5.6.8, the enclosed Special Report No. 2010-001-00 (Unit 1) is submitted.

This letter contains no NRC commitments. If you have any questions, please contact Doug McKinney at (205)992-5982.

Respectfully submitted,

T. E. Tynan
Vice President – Vogtle

TET/TMH/sdc

Enclosures: Special Report 2010-001-00

cc: Southern Nuclear Operating Company
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Mr. T. E. Tynan, Vice President – Vogtle
Ms. P. M. Marino, Vice President – Engineering
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U. S. Nuclear Regulatory Commission
Mr. L. A. Reyes, Regional Administrator
Mr. R. E. Martin, NRR Project Manager – Vogtle
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Vogtle Electric Generating Plant, Unit 1
Special Report 2010-001-00, Inoperable Radiation Monitor 1RE-006

Enclosure

Special Report 2010-001-00

Vogtle Electric Generating Plant, Unit 1
Special Report 2010-001-00, Inoperable Radiation Monitor 1RE-006

Enclosure

Special Report 2010-001-00

This Special Report is being submitted due to one of the two required Containment Radiation high range radiation monitors (1RE-006) not being restored to Operable status within the time required by Technical Specification LCO 3.3.3 Condition B. Technical Specification LCO 3.3.3 Condition B requires the monitor to be restored to Operable status within 30 days. If the monitor cannot be restored to Operable status within 30 days, LCO 3.3.3.G requires a Special Report to be submitted in accordance with Technical Specification 5.6.8 within the following 14 days.

At 08:50 hours on July 15, 2010 Containment High Range Radiation Monitor 1RE-006 was declared inoperable due to a trouble indication at the Safety Related Display Console (SRDC). The Communication Console indicated that the signal from the detector was below the minimum signal generated by the detector's keep-alive source. A LCO was written requiring restoration to Operable status by August 14, 2010 at 08:50 hrs and a work order was generated to repair 1RE-006.

Maintenance troubleshooting has isolated the problem to the detector. Approximately 96 mR of radiation exposure was accrued by personnel associated with the troubleshooting. Due to the detector's location on the Containment operating floor and proximity to the reactor vessel, it is estimated that approximately 400 mR of additional radiation exposure would be accrued by personnel involved in the replacement activities. The primary source of radiation exposure would be from neutron radiation due to the location of the detector relative to the reactor vessel. The estimated 400 mR of additional radiation exposure is based upon optimizing the sequence of work activities, minimizing stay times in high dose areas, performing mock up training for the personnel involved and a detailed review of the repair plan by the ALARA committee in accordance with plant procedures. However, it does not include any allowance for contingencies should unexpected conditions (e.g. stripped threads on the environmentally qualified seal, kinked or damaged cabling, etc.) be encountered during the repair effort.

Therefore, to minimize personnel exposure to radiation and in keeping with principles of ALARA, the detector should only be replaced when the unit is not critical. Containment high range radiation monitor 1RE-006 is scheduled to be repaired during the next refueling outage currently scheduled for spring 2011 or at the next forced shutdown of sufficient duration. Containment radiation high range radiation monitor 1RE-005 remains operable and would provide an alternate means of determining radiation levels in containment following an accident. Additionally, the containment low range radiation monitors (1RE-002 and 1RE-003) are available and are capable of detecting radiation levels up to 5400 mR/hr.