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U. S. Nuclear Regulatory Commission
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Subject: Arkansas Nuclear One – Unit 2
Docket No. 50-368
License No. NPF-6
Special Report – Reactor Vessel Level Monitoring System

Dear Sir or Madam:

Arkansas Nuclear One - Unit 2 (ANO-2) Technical Specification 3.3.3.6, Post Accident Instrumentation, Table 3.3-10 Item 14 requires a minimum of two channels of Reactor Vessel Level Monitoring System (RVLMS) instrumentation to be operable. The Bases of Technical Specification 3.3.3.6 states, "A minimum of two operable level sensors in the upper plenum region and one operable sensor in the dome region are required for RVLMS channel operability." The two dome region sensors are Level 1 and Level 2.

On April 29, 2002, with ANO-2 in Mode 3 (Hot Standby) during startup following a refueling outage, RVLMS Channel 1 Levels 1 and 2 were observed to indicate INV (invalid). After the system was rebooted, Level 2 returned to the expected WET indication while Level 1 remained INV. Channel 1 was restored to an operable status.

On May 7, 2002, with ANO-2 operating at approximately 68 percent power, RVLMS Channel 1 sensor Level 2 was discovered to be indicating INV. Troubleshooting revealed that the control cabinet was operating correctly. Time Domain Reflectometry (TDR) testing of sensors Level 1 and 2 was performed and confirmed an open circuit condition inside the Containment Building. This is an indication of a problem with the connector either at the Reactor Vessel Head or at the top of the Reactor Maintenance Structure (bulkhead connector). After the TDR test, Channel 1 sensor Level 2 began to read WET and the channel was restored to an operable status on May 9, 2002.

At 0702 on May 13, 2002, with ANO-2 operating at approximately 92 percent power, RVLMS Channel 1 sensor Level 2 was discovered to be indicating DRY. Action 3 of Technical Specification 3.3.3.6 Table 3.3-10 was entered. Rebooting did not restore the indication from Level 2. Following a plant load transient on May 14, 2002, the indication of Level 2 returned to WET; however, because of the unreliable nature of the dome area sensors, RVLMS Channel 1 is inoperable.

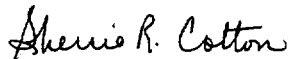
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ANO-2 RVLMS Channel 2 remains operable with dome sensor Level 1 and plenum region sensors Level 8 and 9 inoperable.

ANO plans to restore RVLMS Channel 1 to an operable status prior to completion of the next refueling outage. (This constitutes a continuing compliance commitment.) The outage is currently scheduled to begin in September 2003.

This Special Report is submitted as required by ANO-2 Technical Specification 3.3.3.6 Table 3.3-10 Action 3.b and Technical Specification 6.9.2.

Sincerely,



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Director, Nuclear Safety Assurance

SRC/tfs

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