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L-2009-293

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

Re: Turkey Point Unit 4  
Docket Nos. 50-251  
Special Report - Accident Monitoring Instrumentation

In accordance with Technical Specifications 6.9.2 and 3.3.3.3, the attached Special Report is provided for your information.

Should there be any questions regarding this information, please contact Robert J. Tomonto, Licensing Manager at (305) 246-7327.

Sincerely,

*R. V. UJA for Mike Kiley*

Michael Kiley  
Vice President  
Turkey Point Nuclear Plant

SM

cc: Regional Administrator, Region II, USNRC  
Senior Resident Inspector, USNRC, Turkey Point Plant

## SPECIAL REPORT

### Purpose:

This special report is being submitted pursuant to the requirements of Turkey Point Unit 4 Technical Specification (TS) 3.3.3.3, Table 3.3-5, Accident Monitoring Instrumentation, Action 34, part 2) due to the Condenser Air Ejector for High Range-Noble Gas Effluent Monitor being inoperable for greater than 7 days.

Required Action 34 of TS 3.3.3.3, Table 3.3-5, Item 19.c, states: "With the number of OPERABLE channels less than required by the Minimum Channels OPERABLE requirements, initiate the preplanned alternate method of monitoring the appropriate parameter(s), within 72 hours, and:

Either restore the inoperable channel(s) to OPERABLE status within 7 days of the event, or Prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 14 days outlining the action taken, the cause of the inoperability, and the plans and schedule for restoring the system to OPERABLE status."

This special report is being transmitted in accordance with these requirements.

### Event and Action Taken:

On November 25, 2009, Unit 4 was in Mode 4, returning to power from a refueling outage. The historical database trends indicate that at approximately 2013 on 11/25/09, the Mid Range, Channel 7 of the High Range Noble Gas Effluent Monitor for the Condenser Air Ejector, RAD-4-6417, began indicating abnormal readings with spiking into the alarm settings.

RAD-4-6417 consists of three channels with the following ranges to cover the total range required (10<sup>-6</sup> to 10<sup>5</sup> μCi/cc) for the Condenser Air Ejector High Range-Noble Gas Effluent Monitor:

High Range	Channel 9:	100 to 10 <sup>5</sup> μCi/cc,
Mid Range	Channel 7:	2.5 x 10 <sup>-2</sup> to 4 x 10 <sup>2</sup> μCi/cc,
Low Range	Channel 5:	10 <sup>-7</sup> to 6 x 10 <sup>-2</sup> μCi/cc.

On November 25, 2009 at approximately 2154, Unit 4 entered Mode 3. In accordance with TS 3.3.3.3, Table 3.3-5, Item 19.c., the Condenser Air Ejector Noble Gas Effluent Monitor is required to be OPERABLE for Modes 1-3. Recognizing that RAD-4-6417 was still experiencing abnormal readings, Operations declared the effluent monitor out of service and placed it in the equipment out of service (EOOS) log.

On November 26, 2009, a work request was generated to troubleshoot and repair RAD-4-6417, Channel 7. The alternate monitoring was initiated within 72 hours as required by TS Action 34 and it was in place for the entire time the monitor was inoperable.

Troubleshooting determined that the high voltage power supply on the interface circuit had failed and was no longer powering the Geiger-Mueller (GM) detector tube for Channel 7. With no output from the GM tube to the RAD-4-6417 display, the detector was declared out of service. Channel 7 was not restored within 7 days of the event, or prior to December 2, 2009, due to unavailability of spare parts. As such, the Condenser Air Ejector High Range Noble Gas Effluent Monitor was inoperable for greater than 7 days. The replacement interface circuit unit was installed on December 7, 2009. Repair of RAD-4-6417 Mid Range Channel 7 was completed and was returned to service on December 7, 2009.

Cause:

The primary cause of the loss of monitor was the failed power supply for channel 7.

Schedule for Restoration:

The Condenser Air Ejector for High Range-Noble Gas Effluent Monitor was returned to service on December 7, 2009, after replacement of the high voltage power supply.