



February 22, 2006

L-2006-063  
10 CFR 50.36

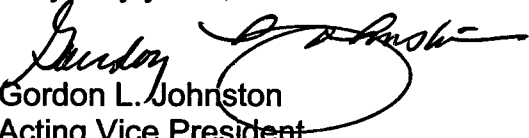
U. S Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555

Re: St. Lucie Unit 1  
Docket No. 50-335  
Technical Specification Special Report  
Date of Event: February 8, 2006  
Radwaste Building Exhaust System  
Plant Ventilation Stack Particulate Iodine and Noble Gas (SPING) Radiation - Out of Service

The attached Special Report is being transmitted pursuant to the requirements of St. Lucie Unit 1 Technical Specification 3.3.3.1, Radiation Monitoring Instrumentation, and pursuant to Technical Specification 6.9.2, Special Reports. This report provides notification that the plant vent stack radiation monitor was out of service for greater than 72 hours and the plans taken to restore the monitor channel to service. The plant vent monitor is expected to be repaired and returned to service by March 24, 2006.

Should there be any questions on this information, please contact Don Cecchetti at (772) 467-7155.

Very truly yours,

  
Gordon L. Johnston  
Acting Vice President  
St. Lucie Plant

GLJ/DLC

Attachment

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BACKGROUND/EVENT DESCRIPTION:

Condition Report (CR) 06-5025 was written due to the failure of the secondary calibration of the Unit 1 Plant Vent Stack Particulate Iodine and Noble Gas (SPING) Radiation Monitor, RSC-26-1 on February 8, 2006. Maintenance was unsuccessful in calibrating the monitor within the required 72 hours and preplanned alternate means of monitoring plant vent effluents were instituted in accordance with Chemistry Operating Procedure COP-06.10 and Plant Technical Specification 3.3.3.1, Table 3.3-6 Action 15.

Plant maintenance and engineering investigated the situation and determined additional repairs and a primary calibration of this monitor is necessary, prior to returning it to service.

The Plant Vent, Emergency Core Cooling System (ECCS) and Fuel Handling Building (FHB) Radiation Monitors (RSC-26-1, 2, 3 & 4) are described in the St. Lucie Unit 1 FSAR Section 11.4.

These effluent radiation monitors consist of a three stage particulate, iodine and noble gas monitor extending from the normal range,  $10E-7$  to  $10E-2$   $\mu\text{Ci/cc}$ , to the upper limit of  $10E5$   $\mu\text{Ci/cc}$  of Xe-133 equivalent. The primary purpose of the effluent monitors is to continuously monitor and record the radioactivity level of plant effluent gases being discharged from the plant to assure that the plant releases do not exceed Technical Specifications limits.

Technical Specification 3/4.3.3 also discusses these monitors and requires that they be operable in Modes 1-4. RSC-26-1, Plant Vent Effluent Radiation Monitor, is the only device that measures normal and accident radiation levels that are released at the plant vent. Chemistry procedure C-200, Offsite Dose Calculation Manual (ODCM), also addresses these effluent monitors and the setpoints to be utilized.

Special Report

- Action taken:

The PING-3B (Particulate Iodine and Noble Gas) portable effluent monitor was aligned to sample plant vent effluents in accordance with the preplanned alternate method of sampling. Troubleshooting steps were performed to isolate any power supply or electronics problems and calibration gases were ordered to perform a primary calibration.

- Cause for inoperability:

The radiation value measured on the plant vent radiation monitor during the Secondary calibration fell outside the required 15% limit when using the Ba<sub>133</sub> calibration source. Subsequent troubleshooting did not identify the problem within the 72 hour period. After further troubleshooting, including replacement of the detector, high voltage power supply, 5 volt logic power supply, and testing, the cause was determined to be an aged calibration (Ba<sup>133</sup>) source. Additionally, communications from the skid was also determined to be degraded.

- Plans and schedule for restoration:

Primary calibration gases were ordered and are expected to arrive by February 24, 2006. Planned actions are to investigate the communication capabilities of the skid by:

- Replacing the Memory II PCB with a test board.
- Performing continuity checks of the ribbon cables in the skid.
- Performing a Primary calibration of the channel number 9 (Hi range).
- Performance of a functional test.
- Restore the monitor to its original configuration and return to service.

Completion of the planned activities, restoration of the monitor and return to service is expected by March 24, 2006.