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Site Vice President

December 17, 2014

NL-14-151

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
11545 Rockville Pike  
Rockville, MD 20852

SUBJECT: Post Accident Monitoring (PAM) Report for an Inoperable Reactor Vessel Level Indication System (RVLIS) Train B  
Indian Point Unit Number 2  
Docket No. 50-247  
License No. DPR-26

Dear Sir or Madam:

The purpose of this letter is to submit a report pursuant to Technical Specification (TS) 5.6.6 (Post Accident Monitoring Report) for one channel of Reactor Vessel Level Indication System (RVLIS) Train B inoperable for greater than the TS allowed completion time. TS 3.3.3 [Post Accident Monitoring (PAM) Instrumentation], Table 3.3.3-1, for Function 4, RVLIS requires two operable channels. RVLIS is a Type B, Category 1 function that is provided for verification and long term surveillance of core cooling. RVLIS provides a direct measurement of the collapsed liquid level from the bottom to the top of the reactor vessel and under different coolant flow conditions with and without reactor coolant pumps operating. RVLIS automatically compensates for variations in fluid temperature and density in both Reactor Coolant System (RCS) and instrument capillary tubes. The collapsed level represents the amount of liquid mass that is in the reactor vessel above the core. Measurement of the collapsed water level is selected because it is a direct indication of the water inventory. RVLIS is also used as an Emergency Plan Emergency Action Level (EAL) indicator. The TS Limiting condition for operation (LCO) is satisfied by the operability of two channels of RVLIS (RVLIS-A and RVLIS-B). RVLIS-A includes both a wide range and a narrow range transmitter (LT-1311 and LT-1312), and RVLIS-B includes both a wide range and a narrow range transmitter (LT-1321 and LT-1322).

On November 5, 2014, operators observed the RVLIS Train B (RCP Operating) level indicator in the Unit 2 Central Control Room (CCR) was reading off scale high. At approximately 20:42 hours, operations entered TS 3.3.3 Condition A for one or more functions of Table 3.3.3-1 with one or more required channels inoperable for an inoperable Function 4. Required Action A.1 is to restore required channel to operable in 30 days. CR-IP2-2014-05759 recorded the condition in the Entergy corrective action program (CAP).

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On December 5, 2014, CR-IP2-2014-06272 recorded that the inoperable RVLIS Train B associated with Limiting Condition for Operation (LCO) 3.3.3 exceeded the requirement to be returned to operable within 30 days as of 20:42 hours. TS Table 3.3.3-1 Function 4 (RVLIS) reference condition is Condition F. TS 3.3.3, Condition F requires a report be submitted to NRC within the next 14 days pursuant to TS 5.6.6. The report is to outline the alternate method of monitoring, the cause of the inoperability, and the plans and schedule for restoring the instrument to operable status.

- Alternate method of monitoring

While RVLIS Train B is inoperable, RVLIS Train A is operable thereby providing the capability to perform the function. Two operable channels ensure no single failure prevents operators from getting the information necessary for them to determine the safety status of the unit following an accident. The level instrument for RVLIS are passive in nature in that no critical automatic action is assumed to occur and there is a low probability of an event requiring this PAM instrumentation during the interval with one inoperable channel.

- Cause

The apparent cause of the inoperability of RVLIS Train B is a failed LT-1322. During troubleshooting, a test signal was provided in place of the signal coming from LT-1322. With a test signal, indication returned to the accurate expected value and when the LT-1322 signal from the field was returned, indication returned to offscale high. The output of LT-1322 was measured and was found to be erratic and pegging high.

- Plans for restoring the RVLIS Train B is to replace the transmitter with new parts ordered under Work Order (WO) 00397608. The amplifier board for LT-1322 was replaced with no effect on the observed condition. Replacement of the entire transmitter requires full calibration which can only be done during an outage. The next anticipated window for this work is the cycle 22 (2R22) Refueling Outage in the spring of 2016. This repair will also be included in the units forced outage schedule.

Should you have any questions regarding this matter, please contact Mr. Robert Walpole, Manager, Regulatory Assurance, Indian Point Energy Center at (914) 254-6710.

Sincerely,



LC/cbr

cc: Mr. Douglas Pickett, Senior Project Manager, NRC NRR  
Mr. Daniel H. Dorman, Regional Administrator, NRC Region I  
NRC Senior Resident Inspectors Office  
Mr. John B. Rhodes, President and CEO, NYSERDA  
Mrs. Bridget Frymire, New York State Dept. of Public Service