Exelon Generation®

Larry D. Smith
Regulatory Assurance Manager

Calvert Cliffs Nuclear Power Plant
1650 Calvert Cliffs Parkway
Lusby, MD 20657

410 495 5219 Office
410 610 9729 Mobile
www.exeloncorp.com

larry.smith2@exeloncorp.com

TS 3.3.10 and 5.6.7

June 12, 2019

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

Calvert Cliffs Nuclear Power Plant, Unit No. 2
Renewed Facility Operating License No. DPR-69
NRC Docket No. 50-318

Subject: **Reactor Vessel Level Monitoring System Special Report**

This special report is submitted in accordance with Calvert Cliffs Nuclear Power Plant Technical Specification 3.3.10. The report is required due to the Unit 2 Reactor Vessel Level Monitoring System having less than the required minimum number of operable channels.

ACTION TAKEN

On May 1, 2019 at 00:10 am the CCNPP Unit 2 Reactor Vessel Water Level Monitoring System (RVLMS), Channel A experienced a total loss of cabinet power. Calvert Cliffs Technical Specification "Post-Accident Monitoring (PAMS) Instrumentation," section 3.3.10-1 function 5, requires two channels of RVLMS to be operable. Because of the subject failure, CCNPP entered Technical Specification 3.3.10, Condition A. This failure resulted in Channel A being declared inoperable. When the Completion Time of Condition A expired, CCNPP entered Technical Specification 3.3.10, Condition B.1, which requires submission of this report in accordance with Technical Specification 5.6.7.

PREPLANNED ALTERNATE METHOD OF MONITORING

The Reactor Vessel Water Level Monitoring System instrumentation is designated for post-accident monitoring use. It provides the plant operator with information to assess void formation in the reactor vessel head region and the trend of liquid level in the reactor vessel plenum. The Reactor Vessel Water Level Monitoring System consists of two redundant channels. Reactor Vessel Water Level Monitoring Channel B remains operable with all eight of its sensors functioning normally. The removal of Channel A from operable status eliminates a means of redundant indication. However, alternate methods of monitoring for core and Reactor Coolant System voiding, using pressurizer level, Reactor Coolant System subcooling, hot and cold leg temperature, and core exit thermocouple instrumentation, have been initiated as required by plant procedures.

IE22
NRR

CAUSES OF INOPERABILITY

The cause of inoperability is the failure of channel A RVLMS line filter and bulk 300 VDC power distribution modules. The most probable cause of these failures is age related due to run to maintenance system.

PLANS AND SCHEDULES FOR RESTORING THE SYSTEM TO OPERABLE STATUS

Calvert Cliffs Nuclear Power Plant performed troubleshooting and determined a blown fuse interrupted the source power to the RVLMS cabinet A. The source power was tagged out and additional troubleshooting with temporary power was performed locally at the cabinet. The HMI computer powered up properly, but each time the power supply chassis was energized it immediately tripped the breaker. This indicates the line filter and bulk 300 vdc power distribution modules are the cause of the failure. The parts are ordered and expected to be received by June 28, 2019. Repairs will take place once the parts are received.

There are no regulatory commitments contained in this correspondence.
Should you have questions regarding this matter, please contact me at (410) 495-5219.

Respectfully,

Michael J. Frick FOR L.D. SMITH

Larry D. Smith
Regulatory Assurance Manager
LDS/MJF/lmd

cc: NRC Project Manager, Calvert Cliffs
NRC Regional Administrator, Region I
NRC Resident Inspector, Calvert Cliffs
D. Tancabel, MD-DNR