



**INDIANA
MICHIGAN
POWER®**

A unit of American Electric Power

Indiana Michigan Power
Cook Nuclear Plant
One Cook Place
Bridgman, MI 49106
IndianaMichiganPower.com

June 25, 2020

AEP-NRC-2020-47
10 CFR 50.4
10 CFR 50.36

Docket Nos.: 50-316

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555-0001

Donald C. Cook Nuclear Plant, Unit 2
Report per Technical Specification 5.6.6 for Inoperability of Unit 2 Post Accident Monitoring
Containment Area Radiation (High Range)

Indiana Michigan Power Company (I&M), the licensee for Donald C. Cook Nuclear Plant (CNP) Unit 2, is sending this report pursuant to CNP Technical Specification (TS) 3.3.3, "Post Accident Monitoring (PAM) Instrumentation" and TS 5.6.6, "Post Accident Monitoring Report." The enclosure to this letter contains the report regarding the inoperability of a Unit 2 Containment Area Radiation (High Range) Monitor. The High Range Train B Area Radiation Monitor, 2-VRA-2410, was discovered to be inoperable during channel calibration. This report is being submitted due to 2-VRA-2410 being inoperable for greater than 30 days. The information required by TS 5.6.6, "Post Accident Monitoring Report" is enclosed.

There are no new or revised commitments in this letter. Should you have any questions, please contact Mr. Michael K. Scarpello, Director of Regulatory Affairs, at (269) 466-2649.

Sincerely,

Q. Shane Lies
Site Vice President

DLW/ml

Enclosure: Donald C Cook, Unit 2 Report per Technical Specification 5.6.6 for
Inoperability of Post-Accident Monitoring Instrument Containment Area
Radiation (High Range)

TEZZ
NRR

R. J. Ancona – MPSC
EGLE – RMD/RPS
J. B. Giessner – NRC Region III
NRC Resident Inspector
S. P. Wall – NRC Washington, D.C.
A. J. Williamson – AEP Ft. Wayne, w/o enclosures

Enclosure 1 to AEP-NRC-2020-47

Donald C. Cook, Unit 2 Report per Technical Specification 5.6.6 for Inoperability of Post-Accident Monitoring Instrument Containment Area Radiation (High Range)

Description of Condition

On May 14, 2020, during the performance of a channel calibration on the Unit 2 containment lower compartment Train B high range radiation monitor, 2-VRA-2410 was determined to be inoperable. Per Technical Specification (TS) LCO 3.3.3, "Post Accident Monitoring (PAM) Instrumentation," Condition A, 2-VRA-2410 is required to be restored to OPERABLE status within 30 days. TS LCO 3.3.3, Condition B, requires submittal of a report, in accordance with TS 5.6.6 "Post Accident Monitoring Report," within 14 days of exceeding the Condition A Completion Time.

Replacement of the module was originally scheduled for June 2, 2020, but was delayed when the replacement module failed during bench testing. Donald C. Cook Nuclear Plant (CNP) located a second replacement module that had been previously installed in Unit 1. This module had been removed due to intermittent spiking that caused control room alarms. The module was sent to the vendor for diagnostics and repair. The vendor was unable to locate any issues with the module. The second module was installed on June 11, 2020, but the intermittent spiking was again noted. The 30-day Completion Time for TS LCO 3.3.3, "Post Accident Monitoring (PAM) Instrumentation," Condition A, was reached on June 13, 2020.

Background

The primary purpose of the PAM instrumentation is to display unit variables that provide information required by the control room operators during accident situations. Containment Area Radiation (High Range) is a Type A, Category 1 variable provided for determination of adverse containment conditions. Two containment area radiation channels are provided (VRA-2310 (Train A) and VRA-2410 (Train B)). Each channel is capable of monitoring from 1 R/hr to 1×10^7 R/hr.

Cause of Inoperability

The apparent cause of the initial failure of 2-VRA-2410 was the readout module switch that was malfunctioning. Delays in receiving a replacement module from the vendor and additional component failures extended restoration beyond 30 days.

Preplanned Alternate Method of Monitoring

The containment area radiation high range monitor consists of two redundant channels. Train A, 2-VRA-2310, remained operable while Train B, 2-VRA-2410, was inoperable. Additionally, 2-VRA-2410 has a non-safety related digital readout in the control room. The digital indication was maintained after the safety related module failed. The non-safety digital readout would also be used for trending purposes if available.

Plans and Schedule for Restoring Functionality

Restoration activities for 2-VRA-2410 were actively worked. A subsequent attempt to troubleshoot and repair was successful. 2-VRA-2410 was returned to service and declared OPERABLE on June 17, 2020. Additional details of the restoration plan and schedule are therefore not necessary for this report.