



FirstEnergy Nuclear Operating Company

Perry Nuclear Power Plant
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David B. Hamilton
Vice President

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January 5, 2018
L-18-002

10CFR50.4

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

SUBJECT:
Perry Nuclear Power Plant
Docket No. 50-440, License No. NPF-58
Special Report: Inoperable Post Accident Monitoring Instrumentation

In accordance with the provisions of Perry Nuclear Power Plant Technical Specification 3.3.3.1, the enclosed Special Report is being submitted to notify the Nuclear Regulatory Commission of an inoperable channel of Post Accident Monitoring Instrumentation. The report documents Post Accident Monitoring equipment that had been out-of-service for greater than 30 days.

There are no regulatory commitments contained in this letter. If there are any questions or if additional information is required, please contact Mr. Nicola Conicella, Manager – Regulatory Compliance, at (440) 280-5415.

Sincerely,

A handwritten signature in black ink, appearing to be "D Hamilton", written over a horizontal line.

David Hamilton
Vice President

Enclosure: Inoperable Post Accident Monitoring Instrumentation

cc: NRC Project Manager – Kimberly Green
NRC Regional Administrator – Steven West
NRC Resident Inspector

Special Report

Inoperable Post Accident Monitoring Instrumentation

The primary purpose of the Perry Nuclear Power Plant (PNPP) post accident monitoring instrumentation is to display plant variables required to be monitored by the control room operators during accident scenarios. The primary containment/drywell area gross gamma radiation monitors, which comprise a portion of the post accident radiation monitoring system instruments, are provided to monitor for potential significant radiation releases, and to aid in the assessment of releases for determining site emergency action levels. PNPP has two multi-channel area radiation monitors, each consisting of one high range containment detector and one high range drywell detector.

One drywell channel of the primary containment/drywell area gross gamma radiation monitors had been inoperable for greater than the allowed outage time permitted by Technical Specifications (TS). In accordance with TS 3.3.3.1 Action B.1, if the required channel is not restored within 30 days, a special report is required to be submitted within an additional 14 days detailing the cause of the inoperable channel and proposed restorative actions. Action B.1 was entered on December 25, 2017. Accordingly, this special report is submitted in accordance with TS 3.3.3.1 Action B.1.

On November 25, 2017, at 0955 hours, alarms on the containment and drywell radiation monitor panel indicated equipment failure. Both the containment and the drywell post accident radiation monitors were declared inoperable. Further troubleshooting determined that only the drywell radiation monitor had failed and the containment post accident radiation monitor was declared operable on December 10, 2017, at 1940 hours.

Intermittent failures of the high voltage signal resulted in alarms on the post accident monitoring control room panel. The condition was random and intermittent when it occurred, and existed for only a few seconds. During troubleshooting the cables for the drywell and containment post accident radiation monitors were swapped, restored, and connections tightened. Since December 10, 2017, no equipment failure alarms have been received, with the most likely cause having been a loose connector. Also, the drywell post accident radiation monitor passed its surveillance on December 19, 2017. After 24 days of monitoring, with no alarms received, the drywell post accident radiation monitor was declared operable on January 3, 2018.