



A Centene Energy Company

EDISON PLANT  
300 MADISON AVENUE  
TOLEDO, OHIO 43602-0001

NP40-92-001

AB-92-0012

Docket Number 50-346

License Number NPF-3

March 19, 1992

United States Nuclear Regulatory Commission  
Document Control Desk  
Washington, D.C. 20555

Subject: Special Report Pursuant to Technical Specification 3.3.3.8, Fire  
Detection Instrumentation

Gentlemen:

This letter provides the Special Report required by Davis-Besse Nuclear Power Station (DBNPS) Operating License, Appendix A, Technical Specification (TS) 3.3.3.8, Fire Detection Instrumentation, when required fire detection instrumentation is inoperable in excess of fourteen days.

On February 4, 1992, with the reactor at 100% power (Mode 1), Toledo Edison (TE) identified that the local fire detector alarm panel (C4720A) for fire detection zone (FDZ) 317, containment hatch area 585' elevation, was in a "trouble" indication condition. This class A smoke detection zone consists of twenty-six Cerberus Pyrotronics Model DI-6 ionization detectors which were installed in the fall of 1991 during the seventh refueling outage. Since the trouble indication condition could not be reset, FDZ 317 was declared inoperable and the Action statement for TS 3.3.3.8 was entered. This Action statement requires the establishment of an hourly fire watch patrol for accessible fire detection zones. However, because FDZ 317 is inside the reactor containment building and is identified on TS 3.3.3.8 Table 3.3-14 as an inaccessible area, an hourly fire watch patrol was not established in FDZ 317. In that the trouble indication condition for FDZ 317 on fire panel C4720A prevented other trouble indication conditions (but not alarm conditions) on C4720A from being transmitted to the main control room, an hourly fire watch patrol was established to monitor C4720A for additional trouble indication conditions. Although the trouble indication condition became intermittent after FDZ 317 was declared inoperable, TE continued to consider FDZ 317 inoperable.

This Action statement also requires either the restoration of the inoperable fire detection instrument to an operable status within fourteen days or the submission of a Special Report to the Nuclear Regulatory Commission (NRC) within the next thirty days outlining the action taken, the cause of

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inoperability, and the plans and schedule for restoring the fire detection instrument to an operable status.

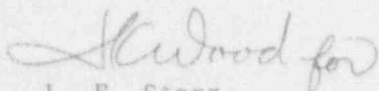
During troubleshooting actions at C4720A, a monitoring system was hooked up to the wiring associated with the detectors in FDZ 317. The troubleshooting results indicated a reasonable likelihood that a detector and/or its associated base was failing. Toledo Edison evaluated the time required for troubleshooting and repair along with the expected radiation exposures and determined that the benefits of restoring FDZ 317 to an operable status were justified from an As Low As Reasonably Achievable (ALARA) program perspective. An action plan was developed to perform a containment entry in order to isolate and replace the failing detector/base.

On February 21, 1992, a containment entry was made. The time spent in FDZ 317 was kept at a minimum consistent with ALARA practices. One detector base was determined through testing to be inoperable and was replaced. A new detector was also installed in the new base. The trouble condition was cleared, and, after several days of monitoring without incident, FDZ 317 was declared operable on February 24, 1992.

The exact cause of detector inoperability can not be determined because the inoperable detector base can not be decontaminated sufficiently without destroying it to allow shipment to the manufacturer for a cause of failure evaluation. It is being retained on site for further analysis should additional detector failures indicate a need for root cause analysis.

If you have any questions, please contact Mr. R. W. Schrauder, Manager - Nuclear Licensing, at (419) 249-2366.

Very truly yours,



L. P. Storz  
Plant Manager

KBR/ed

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