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U.S. NUCLEAR REGULATORY COMMISSION APPROVED OMB NO. 3150-0104 EXPIRES: 8/31/85

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## Description

NRC Form 366A

On March 22, 1987 at approximately 1445, while performing a quarterly test to verify fire suppression system flow operability, Operations personnel identified that water flow switch fire detector WFS-2G2 [KP;FIS] was inoperable. Technical Specification 3.22.1, Action 1, states that when the number of instruments (detectors) operable is less than required, "within one hour, establish a fire watch patrol to inspect the zone with the inoperable instrument at least once per hour". Contrary to this requirement, no fire watch patrol was established until April 20, 1987. The Plant was in hot shutdown condition (primary coolant system: 2032 psia, 532 degrees) at the time of the event.

The detector is a Notifier, model NVR-2BZ and is normally maintained under a static water pressure of approximately 100 psig. The Fire Protection System (FPS) associated with this detector is actuated by the melting of a fusible link within the sprinkler heads. When the fusible link releases, it causes the spray head pressure to drop and a pilot valve to open. Water is then permitted to pass through the water flow switch fire detectors which sense the flow and annunciate in the Control Room.

The inoperable detector was identified and logged by Auxiliary Operators (AO) on the test data sheets. A work request, as required by the test, was also initiated by the AOs and indicated on the data sheet.

Results of the test were then reviewed by the Shift Supervisor, however, an hourly fire watch patrol was not established until April 20, when Operations personnel, releasing the detector for repair, identified that the fire watch patrol was not being performed.

### Cause Of The Event

The failure of the on-duty Shift Supervisor to implement the required Technical Specification Action statement for the inoperable water flow switch fire detector resulted from a lack of awareness to Action Statements directly associated with this detector. The quarterly test (CL 21.13) used to verify the fire suppression system operability does not identify equipment directly associated with Technical Specifications, does not prescribe actions beyond initiating a work order to repair the inoperable instrument, and does not reference Technical Specifications within the test.

#### Corrective Actions

The quarterly test (CL 21.13) described in this event is being revised to include references to appropriate Technical Specifications and to call out equipment which, if inoperable, would invoke Action Statements described in Technical Specifications.

LICENSEE EVENT REPORT (LER) TEXT CONTINUA	TION
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U.S. NUCLEAR REGULATORY COMMISSION APPROVED OMB NO. 3150-0104 EXPIRES: 8/31/85

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All Operations Department Fire Protection System checklists (tests) will be reviewed to ensure appropriate references are made to Technical Specifications and actions described therein.

#### Analysis Of The Event

NRC Form 386A (9-83)

> Operability of the fire detection instrumentation ensures that adequate warning capability is available for the prompt detection of fires. This capability is required in order to detect and locate fires in their early states. Prompt detection of fires will reduce the potential for damage to safety-related equipment and is an integral element in the overall facility fire protection program.

> The inoperability of the water flow switch fire detector will cause the loss of an annunciated alarm in the Control Room, but will not render the fire suppression system inoperable. If activated, the sprinkler would perform its designed function. In addition, sprinkler system activation would cause a fire suppression system pump to actuate and an alarm to annunciate in the Control Room.

Due to the failure to implement the required hourly fire watch patrol, the capability for prompt detection of local fires was reduced, however, in addition to the above, Operations personnel perform shiftly walkdowns of the affected area (1-2 Diesel Generator Room). Also, the water flow switch fire detector in the 1-1 Diesel Generator Room, which is directly adjacent to the 1-2 Diesel Generator Room was operable during the period detailed above.

This event is being reported per 10CFR50.73 (a)(2)(i) as a condition prohibited by the Plant's Technical Specifications.

## Additional Information

For information regarding the cause of the water flow switch fire detector's inoperability and corrective actions taken, reference LER 87-010.

For information describing previous occurrences of failure to perform a one hour fire watch patrol reference: LERs; 83-061, 83-068 and 83-076





# MICHIGAN'S PROGRESS

General Offices: 1945 West Parnall Road, Jackson, MI 49201 • (517) 788-0550

June 3, 1987

Nuclear Regulatory Commission Document Control Desk Washington, DC 20555

DOCKET 50-255 - LICENSE DPR-20 - PALISADES PLANT -LICENSEE EVENT REPORT 87-015 - FAILURE TO ESTABLISH FIRE WATCH ASSOCIATED WITH INOPERABLE SPRINKLERS

Licensee Event Report (LER) 87-015, (Failure to Establish Fire Watch Associated With Inoperable Sprinklers) is attached. This event is reportable to the NRC per 10CFR50.73(a)(2)(i).

Brian D Johnson Staff Licensing Engineer

CC Administrator, Region III, USNRC NRC Resident Inspector - Palisades

Attachment

