

APPENDIX

U. S. NUCLEAR REGULATORY COMMISSION
REGION IV

NRC Inspection Report: 50-313/88-19
50-368/88-19

Operating Licenses: DPR-51
NPF-6

Dockets: 50-313
50-368

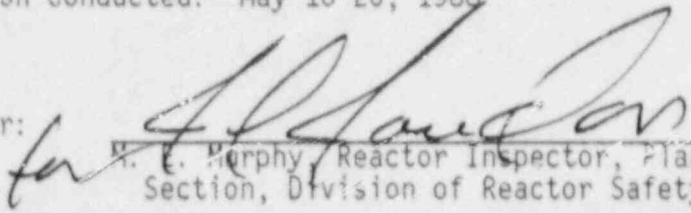
Licensee: Arkansas Power & Light Company (AP&L)
P.O. Box 551
Little Rock, Arkansas 72203

Facility Name: Arkansas Nuclear One (ANO), Units 1 and 2

Inspection At: ANO, Russellville, Arkansas

Inspection Conducted: May 16-20, 1988

Inspector:


M. E. Murphy, Reactor Inspector, Plant Systems
Section, Division of Reactor Safety


Date

Approved:


R. E. Ireland, Acting Section Chief, Plant
Systems Section, Division of Reactor Safety


Date

Inspection Summary

Inspection Conducted May 16-20, 1988 (Report 50-313/88-19)

Areas Inspected: Routine, unannounced inspection of implementation of and compliance to the fire protection/prevention program and review of actions taken on previous inspection findings.

Results: Within the areas inspected, no violations or deviations were identified.

Inspection Conducted May 16-20, 1988 (Report 50-368/88-19)

Areas Inspected: Routine, unannounced inspection of implementation of and compliance to the fire protection/prevention program, review of actions taken on previous inspection findings, and review of actions taken on two LERs.

Results: Within the areas inspected, no violations or deviations were identified.

Details1. Persons ContactedAP&L

- C. Cole, Surveillance Test Coordinator
- *A. Cox, ANO-1 Operations Superintendent
- A. Elliott, Training Instructor
- *H. Greene, Quality Assurance (QA) Superintendent
- R. Hargrove, Training Instructor
- *D. Howard, Licensing Manager
- *L. Humphrey, General Manager, Nuclear Quality
- J. Lamb, Fire Protection Coordinator
- *R. Lane, Manager, Engineering
- *D. Lomax, Plant Licensing Supervisor
- *A. McGregor, Engineering Services Superintendent
- *P. Michalk, Licensing Specialist
- *R. Rispoli, Fire Protection Supervisor
- H. Williams, Security Supervisor, Operations

Others

- J. Johnson, Instructor, Arkansas State Fire Academy
- *T. Robinson, Engineering Technician, ESSI

*Denotes those attending the exit interview conducted on May 20, 1988.

The NRC inspector also interviewed other AP&L personnel during the inspection.

2. Action Taken On Previous Inspection Findings

(Closed) Violation (313/8714-01; 368/8714-01): Failure to provide fire resistance protection to structural steel that is framed into or supports a fire barrier.

The licensee has completed Design Change Package (DCP) 86-2022 for Unit 2; this provided the proper fire resistance protection to exposed structural steel. Interim live load restrictions have been imposed on the areas of Unit 1 that have exposed structural steel, and a DCP is in preparation to permanently mark and identify the affected areas. This item is closed.

(Closed) Deviation (313/8714-03; 368/8714-03): Fire alarm system for Units 1 and 2 do not annunciate subsequent trouble alarms (reflash) after an initial alarm is silenced in accordance with National Fire Protection Association (NFPA) Standard No. 72D, 1975.

The licensee has issued DCPs 85-1085 for Unit 1 and 87-2068 for Unit 2. These DCPs will bring the fire alarm system for both units in agreement with NFPA Standard No. 72D, 1975. Interim compensatory measures are in place that require increased surveillance of the fire alarm panels in both control rooms when a trouble alarm condition exists.

This deviation is considered closed, and an open item has been created for each unit to track the completion of each DCP. (313/8819-01; 368/8819-01)

(Open) Unresolved Item (313/8714-04; 368/8714-04): Fire barrier penetration seal designs not qualified by a standard fire test. Three fire barrier penetration seal designs were found that did not have documented qualification fire tests and had not been previously reviewed by (or are pending with) NRR. The licensee submitted these seal designs for a standard fire test. The results of this test were received by the licensee during this inspection. Pending completion of the licensee's review and submittal to NRR for review and approval, this item remains open.

(Open) Unresolved Item (313/8714-05; 368/8714-05): The licensee could not provide an analysis to support the decision not to provide ventilation for either Units 1 or 2 electrical equipment/switchgear rooms. The licensee has not completed the required analysis. This item remains open.

(Open) Unresolved Item (368/8714-06): Resolution is required between the licensee and NRR concerning the problems identified in NRC Inspection Report 50-313;368/87-14 concerning the methods of control for specific high/low pressure interfaces against inadvertent activation by fire induced spurious signals. The licensee had made no progress on this item and it remains open.

3. Followup on Licensee Event Reports (LERs), Unit 2

The purpose of this part of the inspection was to determine whether the licensee has taken the corrective actions stated in the LER and whether the response to each event was adequate and met regulatory requirements, license conditions, and commitments. The NRC inspector reviewed LERs 88-002 and 88-005 for Unit 2. Both involved continuous fire watch personnel found asleep. The individuals were immediately relieved of fire watch duties, and their employment was terminated.

The licensee has tried various corrective actions such as instituting a roving watch to ensure continuous fire watch personnel were awake and rotating continuous fire watch personnel every 30 minutes to eliminate boredom.

A more effective long term action appears to be a change to the Technical Specifications (TS) that will allow conformance to the standard TS for fire watches (i.e., provisions allowing the use of a roving fire watch in lieu of a continuous watch).

These LERs are considered closed.

4. Fire Protection/Prevention Program, Units 1 and 2

This inspection was conducted to determine that the licensee had established and was implementing a program for fire protection and prevention in conformance with regulatory requirements and industry guides and standards.

The NRC inspector reviewed the fire protection program manual. The licensee's program provides for the control of combustible materials and housekeeping for reduction of fire hazards. Administrative controls have been established to handle disarmed or inoperable fire detection or suppression systems, to provide for maintenance and surveillances on fire suppression, detection, and emergency communications equipment, to establish personnel fire fighting qualifications, training, and fire protection staff responsibilities, to provide fire emergency personnel designations as well as plans and actions and, to establish controls for welding, cutting, grinding, and other ignition sources.

The NRC inspector conducted a walkdown of the fire suppression water supply system and verified that it was operable as required by TS.

A tour of accessible areas of the plant was conducted to assess general area condition, work activities in progress, and the visual condition of fire protection systems and equipment. Combustible materials and flammable and combustible liquid and gas usage were restricted or properly controlled in areas containing safety-related equipment and components. Items checked included positions of selected valves, fire barrier conditions, hose stations, hose houses, halon system lineups, fire lockers, and fire extinguishers for type, location, and condition. During this tour, the closure mechanisms for Fire Doors DR-268 and DR-278 were found to be inoperable. This condition was noted by the licensee's representative, and job orders were subsequently issued to repair or adjust the mechanisms.

There were no construction activities in progress in the toured areas. There was some maintenance work and surveillance testing noted. General housekeeping conditions were found to be good.

Fire protection systems and equipment installed for protection of safety-related areas were found to be functional and tested in accordance with the requirements specified in the TS. Fire brigade equipment, including emergency breathing apparatus, was found to be properly stored and maintained.

The NRC inspector also reviewed fire brigade training and drill records. The records were in order and confirmed that training and drills were being conducted at the specified intervals.

The last QA audit in the area of fire protection was reviewed by the NRC inspector. This was the QA annual audit for 1987 identified as QAP-19-87, "Fire Protection and Loss Prevention Program," dated December 18, 1987. This audit was comprehensive. System and equipment alterations, tests, surveillances, maintenance, records, and overall program procedures were addressed. Discrepancies identified were formally presented to the affected organization. Responses were tracked to close out, and actions taken were reviewed for adequacy.

There were no violations or deviations identified in this area of the inspection.

5. Exit Interview

An exit interview was conducted on May 20, 1988, with those personnel denoted in paragraph 1 of this report. At this exit interview, the NRC inspector summarized the scope and findings of the inspection. There was no information presented at the exit which was identified as proprietary by the licensee.