

APPENDIX B

U. S. NUCLEAR REGULATORY COMMISSION
REGION IV

NRC Inspection Report: 50-313/85-15
50-368/85-16

License: DPR-51
NPF-6

Dockets: 50-313
50-368

Licensee: Arkansas Power and Light Company
P. O. Box 511
Little Rock, Arkansas 72203

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

Inspection At: ANO Site, Russellville, Arkansas

Inspection Conducted: May 20-24, 1985

Inspector: *M. E. Murphy* 7/15/85
M. E. Murphy, Reactor Inspector Date
Special Projects and Engineering Section

Approved: *R. E. Ireland* 7/17/85
R. E. Ireland, Chief Date
Special Projects and Engineering Section

For *M. E. Martin* 7/23/85
L. E. Martin, Chief, Project Section A Date
Reactor Project Branch 2

Inspection Summary

Inspection conducted May 20-24, 1985 (Report 50-313/85-15; 50-368/85-16)

Areas inspected: Routine, unannounced inspection of fire protection/prevention program implementation; review of actions on previously identified inspection findings; and actions taken on fire protection/prevention related LERs. The inspection involved 30 inspector-hours onsite by one NRC inspector.

Results: Within the three areas inspected, one violation was identified (failure to maintain procedures, paragraph 4).

DETAILS1. Persons Contacted

- *B. Baker, Operations Manager
- P. Campbell, Plant Licensing Engineer
- *T. Cogburn, Special Projects Manager
- L. Gulick, Operations Superintendent, Unit 2
- *R. Hargrove, Lead Trainer, Classroom
- L. Humphrey, Administration Manager
- *J. Lamb, Safety & Fire Prevention Coordinator
- *J. Levine, General Manager, ANO
- *D. Lomax, Plant Licensing Supervisor
- J. McWilliams, Operations Superintendent, Unit 1
- J. Montgomery, Human Resources Supervisor
- *M. Pendergrass, General Manager, Technical Services
- *R. Rispoli, Fire Protection Specialist
- *L. Sanders, Maintenance Manager
- C. Shively, Plant Engineering Superintendent
- *G. Storey, Safety and Fire Prevention Coordinator

*Denotes those present at the exit interview.

2. Licensee Action on Previous Inspection Findings

(Open) Deviation 50-313/8215-03; 50-368/8212-02: This deviation identified electrical conduit installations, which had unsealed air gaps external to the conduits, penetrating the lintels above fire doors 46, 259, 260, and 271. The NRC inspector determined that the air gaps have been sealed. However, subsequent to the original inspection, a generic issue was raised concerning modifications to UL rated fire door assemblies.

There are cases where UL has allowed the rating to stand where minor modifications have occurred if they are inspected by a UL representative and it is documented that the existing condition is acceptable. The licensee has determined that Fire Door 46 is no longer in a Technical Specification fire barrier and should be deleted from this item. The licensee informed the NRC inspector that UL representatives have reviewed the remaining door configurations and deemed them acceptable, however, supporting documentation from UL was not available. Pending receipt and availability for review in a future inspection, this deviation will remain open.

(Closed) Open Item 50-313/8215-04; 50-368/8212-03: This item was open pending resolution of the following specific items and completion of the licensee's review for 10 CFR 50, Appendix R, Item III G:

- a. Barrier material not yet accepted as a "3-hour barrier."
- b. Terminal boxes not covered by barrier material in conduit runs already covered.
- c. Conduit above door 57 only covered for half its length.

The licensee has completed the 10 CFR 50, Appendix R, review and is now resolving exemption requests. Appendix R compliance inspection is to be scheduled at a later date.

Specific item resolution was inspected and it was found that the installation of barrier material had been significantly redefined. The separation criteria requires only a "1-hour barrier" and this has been installed on conduits with cables of concern and is the Hemyc Barrier System. Terminal boxes in the conduit runs were covered. The conduit above Door 57 was determined not to contain any cables of concern. Adequacy of the review and determination of the cables of concern will be addressed and inspected during the inspection for Appendix R compliance. This item is closed.

(Open) Open Item 50-313/8215-05: This item is open pending final action by NRR on the final test results for cable penetration fire stop design. This item remains open.

(Closed) Open Item 50-368/8212-04: This item was open pending determination by the licensee that Motor Control Center 2B51 would not be subject to flooding because of the location of the water suppression system spray head. The NRC inspector determined that the licensee has installed a deflector spray shield between the spray head and the panel. It has also been confirmed that the panel accesses are all rubber gasketed. This item is closed.

(Closed) Open Item 50-368/8212-05: This item was open pending repair or replacement of damaged fire retardant board installed on a cable tray in the electrical equipment room. After the Appendix R, evaluation it was found that separation was met and that it was not necessary to take credit for the board. This item is closed.

(Closed) Violation 50-368/8325-02: This violation identified that two designated fire doors, Doors 267 and 340, had gaps from door to floor in excess of 3/4-inch and that no fire watches were established. The licensee's immediate corrective action, establishing a fire watch and initiating a station-wide inspection of all fire doors is considered adequate. Doors 267 and 340 now have air gaps of less than 3/4-inch. Other doors identified in LERs 50-313/83-023 and 50-368/83-045 have also been corrected. The air gap criteria is now in Surveillance Procedure 1306.05 and is checked every 18 months. This item is closed.

3. Licensee Event Report (LER) Followup (Unit 1 and 2)

Through direct observation, discussions with licensee personnel, and review of records, the following fire protection/fire prevention related LERs were reviewed to determine that reportability requirements were fulfilled, immediate corrective action was accomplished, and corrective action to prevent recurrence has been accomplished.

Unit 1

LER 83-021 dealt with the discovery that cross wiring had occurred on two deluge valves. The specific problem was corrected and similar installations were checked for the same problem. This LER is considered closed.

LERs 82-018 and 83-023 dealt with degradation of fire barriers and resulted in an extensive walkdown of all fire barriers, identification and correction of all degraded conditions. The licensee is presently conducting the first 18-month surveillance of fire barriers since the implementation of the extensive review program. Subsequent inspections will review the results of corrective actions taken. The LERs are considered closed.

Unit 2

LERs 81-042, 82-039, 83-004, 83-008, 83-021, 83-026, 83-032, 83-042, 83-045, 84-015, and 84-017 dealt with degradation of fire barriers and resulted in an extensive walkdown of all fire barriers, identification and correction of all degraded conditions. The licensee will conduct the first 18-month surveillance of fire barriers following this extensive review program after completion of the Unit 1 surveillance. Adequacy of corrective actions will be reviewed in future inspections. These LERs are considered closed.

LER 82-029 dealt with the pulling of cable through a fire damper opening. Immediate and long term corrective action was adequate. This LER is considered closed.

LER 83-033 dealt with the floor to door air gap problem. This item is addressed in detail in paragraph 2 of this report under Violation 50-368/8325-02. This LER is considered closed.

LER 83-035 dealt with the potential for flooding in certain areas protected by deluge systems because of inadequate drain capacity. This item is still under review by the licensee's engineering organization.

LER 83-037 dealt with the penetration of fire door lintels by conduit. This item was addressed in detail in paragraph 2 of this report under Deviation 50-368/8212-02.

LER 84-016 dealt with the discovery of an inoperable fire damper. The licensee's investigation of this item is continuing.

LER 84-029 dealt with a fire door automatic closure mechanism that failed to work. The licensee has increased the frequency of inspection of high usage doors. This LER is considered closed.

4. Fire Protection/Prevention Program Implementation

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

The NRC inspector toured accessible areas of the plant site for general area condition, work activities in progress, and visual condition of fire protection systems and equipment. It was found that combustible materials, flammable and combustible liquid and gas usage is restricted or properly controlled in areas containing safety-related equipment and components.

There were no welding, cutting, or use of open flame ignition sources found in the areas toured. General housekeeping conditions were found to be very good. There were no construction or maintenance activities in progress in the toured areas.

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 Technical Specifications. Fire brigade equipment including emergency breathing apparatus was found to be properly stored and maintained.

However, the isolation valve, 2FS-106, for the pre-action valve for Corridor 2139 suppression system was found shut. Discussion with the licensee's representative confirmed that this valve was shut because the exemption request to delete the requirement for a suppression system for Corridor 2139 had been granted. Subsequent review shows that Procedure 2203.09, Revision 0, dated June 26, 1981, "Fire Protection System Annunciator Corrective Action," in Attachment A, 1-5-5 "Corridor by Emergency Control Room Chillers Zone Module" still assumes that the pre-action valve is available for remote operation in the control room. This procedure should have been revised to reflect the system status change and insure the operator had an operable action for this area. Failure to maintain procedures covering activities in the area of fire protection program implementation is an apparent violation.
(50-368/8516-01)

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

The NRC inspector also observed a hands on training session at the recently completed "burn building." Continued development of the use of this facility as presently planned should enhance the practical factors of the training program.

5. Exit Interview

An exit interview was conducted May 24, 1985, with those personnel denoted in paragraph 1 of this report. The senior resident inspector also attended this exit meeting. At this exit interview, the NRC inspector summarized the scope and findings of the inspection.