

U. S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION IV

Report No. 50-313/77-12

Docket No. 50-313

License No. DPR-51

Licensee: Arkansas Power & Light Company
Post Office Box 551
Little Rock, Arkansas 72203

Facility Name: Arkansas Nuclear One, Unit 1

Inspection at: Arkansas Nuclear One, Russellville, Arkansas

Inspection conducted: August 2-5 and August 22-23, 1977

Inspector:

D. L. Kelley
D. L. Kelley, Reactor Inspector, Engineering Support
Section

9/8/77
Date

Other
Accompanying
Personnel:

R. E. Hall, Chief, Engineering Support Section
(August 22-23, 1977)

Reviewed by:

J. E. Gagliardo
J. E. Gagliardo, Reactor Inspector, Reactor
Operations and Nuclear Support Branch

9/9/77
Date

Approved by:

R. E. Hall
R. E. Hall, Chief, Engineering Support Section

9/9/77
Date

Inspection Summary:

Inspection on August 2-5 and August 22-23, 1977 (Report No. 50-313/77-12)

Areas Inspected: Routine, unannounced inspection of the fire protection program. Areas examined during the inspection included: (1) plant emergency plan, surveillance procedures and maintenance procedures relative to fire protection/prevention; (2) surveillance records for the above; and (3) a facility inspection of the fire suppression equipment. The inspection involved twenty-one inspector-hours on site by one NRC inspector.

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Results: Of the three areas inspected, one item of noncompliance (infraction - failure to provide and follow procedures - Paragraph 2) was identified in two areas and one deviation (failure to maintain fire doors closed - Paragraph 3) was identified in the third area.

DETAILS

1. Persons Contacted

J. W. Anderson, Jr., Plant Superintendent
*G. H. Miller, Assistant Plant Superintendent
*L. Alexander, Quality Control Engineer
*D. Hamblen, Quality Control Inspector
F. B. Foster, Production Engineer
*T. M. Martin, Supervisor Plant Maintenance

*denotes those attending the exit interview.

2. Procedures and Records

The following procedures and records were reviewed to ascertain compliance with the licensee's commitments:

Procedure 1104.32, "Fire Water System Normal Operation," Rev. 1, 9/11/75

Procedure 1104.39, "Halon System Operations," Rev. 0, 7/24/75

Procedure 1304.25, "Fire Extinguisher Equipment Inspection and Maintenance," Rev. 2, 7/7/76

Procedure 1304.88, "Fire Water System Testing," Rev. 0, 4/8/74

Procedure 1304.95, "Fire System Testing and Training," Rev. 0, 11/11/76

Procedure 1304.94, "Halon Fire System Inspection," Rev. 0, 11/12/76

Procedure 1406.01, "Housekeeping," Rev. 2, 3/4/77

Procedure 1406.02, "Cleanliness Standards and Methods for Maintenance," Rev. 0, 4/2/74

Procedure 1504.02, "Reactor Vessel Closure Head Stud Removal and Replacement," Rev. 3, 2/19/77

Surveillance Records for:

Procedures No. 1406.01, 1304.94, 1304.25, 1304.88

Also reviewed were records of training and drills conducted relative to fire protection/prevention.

The inspector noted during the procedure review that a procedure (No. 1304.74, "Operational Fire System Checks,") referenced in

procedure 1304.95, "Fire System Testing and Training," had not been issued. Procedure No. 1304.95 requires that procedure 1304.74 be accomplished in accordance with the schedule in Exhibit I of procedure 1304.95. This schedule calls for weekly fire system checks, daily alarm checks and monthly system checks.

Section 4.1 of procedure 1304.95 requires that tests ". . . shall be performed by approved written procedures"

Further investigation revealed that surveillance procedures 1304.88, "Fire Water System Testing," (test interval once every eighteen months) and 1304.93, "Halon Fire System Inspection," (inspection interval - monthly) had not been accomplished since April 8, 1974 and November 11, 1976, respectively, as required by Section 2.2 of procedure 1304.95 which states, "Each Plant Supervisor identified in the Fire Protection Plan (Exhibit I) is responsible for performing and documenting each test, inspection or drill under his cognizance."

The inspector also found that from November 11, 1976, to the date of this inspection, the Plant Superintendent was not notified that the tests had not been accomplished as required by Section 3.3 of procedure 1304.95. This Section states in part, "The Plant Superintendent shall be informed if a required test or drill is not performed prior to or on its due date ($\pm 25\%$)."

The inspector expressed concern that procedure 1304.95, "Fire System Testing and Training," had been through the entire review process including review by the Plant Safety Committee without apparent notice that the procedure, referenced in Exhibit I, had not been written.

Note was also taken of the lack of specific safety precautions for the use of flammable/explosive solvents (acetone) in maintenance procedure 1504.02, "Reactor Vessel Closure Head Stud Removal and Replacement."

The failure to provide or implement surveillance procedures as discussed above is in noncompliance with the Unit One Technical Specification 6.8.1.

3. Facility Inspection

The following seventeen areas were inspected for portable and fixed fire suppression equipment, housekeeping practices with respect to fire hazards and design features for minimizing the spread of fire:

Control Room

Instrument Room

Diesel Generator Rooms

North Electrical Penetration Room
South Electrical Penetration Room
Cable Spreading and Relay Room
4160V Switchgear
480V Power Centers
Start-up Transformer
Paint and Flammable Material Storage Area
Health Physics Area
New and Spent Fuel Storage Area
High and Low Pressure Safety Injection Pump Rooms
Battery Rooms
Inverters
Emergency Feedwater Pump Rooms
Ventilation Systems for Handling Contaminated Atmospheres

The inspector noted during the facility inspection that a number of fire doors were not closed as they should have been. The following doors were found open:

Fire Door DR-70, Rm. 123

Fire Door DR-87, Rm. 157 - This door was blocked open with a piece of steel.

Fire Door DR-76 - This door was tied open to a hand rail with wire.

Fire Doors on either end of Room 111 - The doors were blocked open so that instrument wiring could pass through them.

The interference with the proper operation of the above fire doors is an apparent deviation from the National Fire Code, NFPA-80, 1975, Chapter 2, Section 2-8.7.1.

Other areas noted by the inspector and discussed with the licensee's representative were:

1. Lubricating oil was found stored in the Decay Heat Room A and on level 335 near junction box TB225. Both of these areas are in the controlled access area. The inspector was particularly concerned about the oil in Decay Heat Room A since this room houses a Low Pressure Safety Injection Pump and Containment Building Spray Pump.
2. Polyethelene sheeting was observed piled under a cable tray in the North Electrical Penetration Area, upper level.
3. The absence of protection from falling objects onto the Halon cylinders outside the control room on the turbine operating floor was noted. It was observed that protection had been provided in the form of a wall around the cylinders.

No other items of noncompliance or deviations were identified.

4. Exit Interview

The inspector met with licensee representatives (denoted in Paragraph 1) at the site on August 23, 1977. The inspector summarized the purpose and scope of the inspection. The findings, as detailed above, were discussed with the licensee representatives.