UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA STREET, N.W.
ATLANTA, GEORGIA 30303

Report Nos.: 50-348/83-21 and 50-364/83-19

Licensee: Alabama Power Company
600 North 18th Street
Birmingham, AL 35291

Docket Nos.: 50-348 and 50-364

License Nos.: NPF-2 and NPF-8

Facility Name: Farley

Inspection at Farley site near Dothan, Alabama

Inspectors: T E Conlon for — 9-7-83
W. H. Miller, Jr. — Date Signed

T D Gibbons — 9-7-83
T. D. Gibbons — Date Signed

Approved by: T E Conlon — 9-7-83
T. E. Conlon, Section Chief — Date Signed
Engineering Program Branch
Division of Engineering and Operational Programs

SUMMARY

Inspection on August 16-19, 1983

Areas Inspected

This routine, unannounced inspection involved 54 inspector-hours on site in the areas of fire protection and prevention.

Results

Of the areas inspected, no deviations were identified. Two apparent violations were found (Inadequate Surveillance Test Procedures for Fire Detection System, Fire Protection Control Valves and CO_2 Hose Reels - paragraph 5.b; and Fire Stops Not Provided for Vertical Cable Trays - paragraph 6.).

REPORT DETAILS

1. Persons Contacted

Licensee Employees

*W. G. Hairston, III, Plant Manager
J. D. Woodard, Assistant Plant Manager
*D. N. Morey, Operation Superintendent
*W. B. Shipman, Maintenance Superintendent
*L. M. Stinson, Plant Modifications Supervisor
*M. W. Mitchell, HP Supervisor
*L. S. Williams, Training Director
*R. D. Rogers, Technical Supervisor
*B. R. Yance, Electrical Maintenance Supervisor
*F. G. Watford, Fire Marshall
*R. U. Badham, SAER - Junior Engineer
*R. D. Henley, Training Instructor (Fire Protection)
G. Meints, Fire Protection Representative
J. Hayes, Fire Protection Representative

NRC Resident Inspector

*W. H. Bradford

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on August 19, 1983, with those persons indicated in paragraph 1 above. The licensee acknowledged the following inspection findings:

a. Violation (348/83-21-01 and 364/83-19-01), Inadequate Surveillance Test Procedure for Fire Detection System, Fire Protection Control Valves and CO_2 Hose Reels - paragraph 5.b.

b. Inspector Followup Item (364/83-19-02), Fire Hose Stations For Unit 2 Cable Tunnels Are Not Included in the Technical Specifications - paragraph 5.b.

c. Inspector Followup Item (348/83-21-02), Missing Surveillance Data Sheet for October 1982 Inspection of Procedure FNP-0-STP-126.02 - paragraph 5.c.

d. Violation (364/83-19-03), Fire Stops Not Provided for Vertical Cable Tray - paragraph 6.

3. Licensee Action on Previous Enforcement Matters

a. (Open) Unresolved Item (348/80-03-01 and 364/80-25-05), Substandard Automatic Sprinkler Systems: Design documents (PCN Nos. 81-117 and 82-1293 through 1300) have been completed and construction contract has been awarded to correct these deficiencies. Modifications are scheduled to be completed by November 15, 1983. This item remains open pending completion of these modifications.

b. (Closed) Unresolved Item (348/80-20-04 and 364/80-25-04), Procedures Do Not Require Fire Brigade Members to Satisfactorily Complete Physical Examination for Performing Strenuous Fire Fighting Activities. Memorandum to J. Olshinski, Region II, from D. Eisenhut, NRR, dated May 9, 1983 indicates that the fire protection administrative procedures at Farley were previously reviewed and no unresolved issues were identified. Since administrative procedures were not listed as an unresolved issue in the Farley Safety Evaluation Report, the fire protection administrative requirements of 10 CFR 50 Appendix R are not applicable at Farley. Therefore, this item is closed.

c. (Open) Deviation Item (348/81-06-01), Substandard Fire Damper Installation. All dampers have been modified to conform to the installation requirements of the damper manufacturer except for one damper. Modifications to this damper (PCN 81-1110/123) are scheduled to be completed by September 30, 1983. This item remains open.

d. (Closed) Unresolved Item (348/81-06-02 and 364/81-08-04), Licensee's Evaluation of Fire Resistant Rating of Fire Barrier Doors. The Fire Protection Program Re-evaluation Manual (FPPR) has been revised (Amendment 5 dated July 1982) and a number of doors previously identified as fire doors have now been identified as water tight or pressure type doors to correspond with the as built plant conditions. This item is closed.

e. (Closed) Unresolved Item (364/81-08-03), Fire Stops Not Provided For Cable Chase. The requirement for fire stops in the Unit 2 cable chases has been deleted by Amendment 5 to the FPPR Manual. This item is closed.

f. (Closed) Unresolved Item (364/81-08-06), Sprinkler Protection Not Provided for Rooms 2228 and 2234. Sprinkler protection has been provided for Room 2234 and the requirement for protection for Room 2228 has been deleted by Amendment 5 to the FPPR Manual. This item is closed.

g. (Closed) Unresolved Item (348/82-17-02 and 364/82-16-02), Welding and Cutting Fire Prevention Procedures Do Not Conform to Requirements of 10 CFR 50 Appendix R. These requirements are not applicable to Farley. Refer to above paragraph 3.b.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Fire Protection/Prevention Program (64703)

a. Procedures

The following procedures were examined by the inspectors:

No.	Title
FNP-0-AP-35 Revision 9	General Plant Housekeeping and Cleanliness
FNP-0-AP-36 Revision 7	Fire Surveillance Procedures and and Inspections
FNP-0-AP-37	Fire Brigade
FNP-0-AP-38 Revision 3	Fire Patrols and Watches
FNP-0-AP-03	Plant Organization and Responsibility
FNP-0-E1P-13 Revision 7	Fire Emergencies
FNP-0-E1-1	Duties of an Individual Who Discovers an Emergency Condition
RNP-0-EOP-9.0 Revision 8	Plant Fire
FNP-0-AP-45	Farley Nuclear Plant Training Plan
FNP-0-E1P-23 Revision 1	Auxiliary Building Smoke Removal

These procedures comply with the NRC supplemental guidelines of the document entitled "Nuclear Plant Fire Protection Functional Responsibilities, Administrative Controls and Quality Assurance" dated June 14, 1977. However, several items in the administrative procedures do not meet the current NRC guidelines and requirements of 10 CFR 50, Appendix R. These are the failure to limit open flame permits to 24 hours while plant is in operation, no yearly physical examinations for fire brigade members and lack of detail fire fighting strategies. These issues have previously been reviewed and accepted by NRR, are not listed as open fire protection issues and, therefore, Appendix R is not applicable for these items.

b. Surveillance Procedure For Fire Protection Systems

The inspector reviewed the surveillance procedures and verified that an adequate procedure was provided to accomplish all surveillance requirements of the Technical Specifications (TS) for fire protection features except for the following:

(1) Fire Detection Instrumentation

The surveillance procedures for the functional tests of the detection instruments each six months do not include the fire detection units located in communication Room 202, switchgear Room 335, and switchgear Room 343. These units are required to be tested by Unit 1 TS Section 4.3.3.9.1. Technical Specification Section 6.8.1.f requires written procedures to be established, implemented, and maintained covering fire protection program implementation. This discrepancy is identified as Violation Item (348/83-21-01 and 364/83-19-01), Inadequate Surveillance Test Procedures for Fire Detection System, Fire Protection Control Valves and CO_2 Hose Reels. The fire detectors for the above rooms were immediately tested by the licensee and found to be functional.

(2) Valve Cycle Tests

Technical Specification Sections 4.7.11.1.1.e and 4.7.11.2.6 requires each valve, that can be tested, in the fire protection water system flow path to be cycle tested through at least one complete cycle of full travel at least once per 12 months. A number of valves in the system (approximately 20 sprinkler systems, three hose stations and two sectional valves) were found not to be included in the valve cycle test procedure, Procedure FNP-0-STP-56.0, Fire System Valve Operability Test. This is another example of Violation Item (348/83-21-01 and 364/83-19-01), Inadequate Surveillance Test Procedure for Fire Detection System, Fire Protection Control Valves and CO_2 Hose Reels.

(3) Carbon Dioxide System

Technical Specification 3/4.7.11.3 covers the carbon dioxide systems required to be operable at Farley and includes the 13 ton unit in the turbine building and the distribution system in the auxiliary building. The licensee has included the fixed local application and total flooding systems in the surveillance test procedure, but the hose reel units located throughout the auxiliary building are not included. This discrepancy is identified as another example of Violation Item (348/83-21-01 and 364/83-19-01), Inadequate Surveillance Test Procedure for Fire Detection System, Fire Protection Control Valves and CO_2 Hose Reels.

(4) Fire Hose Stations

Technical Specifications Table 3.7-6 for Unit 2 does not list the hose stations in the cable tunnels from Unit 2 auxiliary building to the diesel generator building. It appears that these should be included in the TS. This is identified as Inspector Followup Item (364/83-19-02), Fire Hose Stations for Unit 2 Cable Tunnels Are Not Included in the Technical Specifications, pending further evaluation.

(5) Yard Fire Hydrants

All of the fire hydrants and associated equipment houses listed by the TS are included in the surveillance inspection and test procedures except for hydrant No. N1Y43V104. The licensee stated that this is a TS error and has requested that this hydrant number be changed to N1Y43V120. This change request is currently being reviewed by NRC and is scheduled to be approved by October 15, 1983. This item will be re-evaluated during a subsequent NRC inspection.

c. Records Review

(1) Surveillance of Fire Protection Systems

The records confirming the completion of the following surveillances were verified:

FNP-1-STP-131.5	Smoke Detectors - Performed February 18, 1982, August 18, 1982, and February 21, 1983
FNP-1-STP-131.01	Smoke Detectors - Performed April 14, 1982, October 20, 1982, and April 18, 1983
FNP-0-STP-127	Yard Loop - Performed May 31, 1983, July 1, 1983, and August 1, 1983
FNP-0-STP-128	High Pressure CO_2 System - Performed September 18, 1979, May 6, 1981, and December 1, 1982
FNP-0-STP-129	Low Pressure CO_2 System - Performed September 12, 1979, March 12, 1981, and November 15, 1982
FNP-0-STP-130	Fire Hose Stations - Performed April 29, 1983, June 1, 1983, and July 1, 1983
FNP-1-STP-126.13	Visual Inspection of Penetration Fire Barriers - Performed April 15, 1981, and September 20, 1982

FNP-1-STP-126.08	Visual Inspection of Penetration Fire Barriers - Performed April 13, 1982, and January 19, 1983
FNP-1-STP-626.0	Preaction Sprinkler System - Issued April 20, 1982 - Performed March 15, 1983
FNP-0-STP-56.0	Fire System Valve Operability Test - Performed September 25, 1981, March 8, 1982, and March 16, 1983
FNP-2-STP-629	Smoke Detectors Circuit Check - Performed September 25, 1981, March 10, 1982, and March 16, 1983
FNP-1-STP-629	Smoke Detectors Circuit Check - Performed September 3, 1982, March 8, 1982, and March 16, 1983
FNP-0-STP 626.1	Diesel Generator Building Heat Detector Functional Test - Performed April 4, 1981, October 27, 1981, May 17, 1982, and November 11, 1982
FNP-0-STP-126.02	Visual Inspection of Penetration Fire Barriers - Performed April 15, 1980, and April 21, 1983 (See comments below)
FNP-0-STP-622	CO_2 Storage Tank Weight Check - Performed January 18, 1982, July 19, 1982, and February 9, 1983
FNP-0-STP-52.0	Fire Pump Operability Test - Performed June 19, 1983, June 30, 1983, July 9, 1983, and July 19, 1983

The inspectors identified that the 18 month surveillance procedure FNP-0-STP-126.02 due on October 1982, was reported as complete but inspection data sheets were missing. The inspector identified that a control room record of surveillances was signed to indicate completion. The licensee is attempting to locate the missing data sheets.

This is identified as Inspector Followup Item (348/83-21-02,) Missing Surveillance Data Sheet for October 1982, Inspection of Procedure FNP-0-STP-126.02, and will be reviewed during a subsequent NRC inspection.

(2) Fire Brigade

The fire brigade records were examined to assure that five qualified members were assigned on the following dates July 2, 3, 4, and August 2 and 7, 1983.

d. Audits

The report audit of fire protection "Farley Triannual Fire Protection Audit" conducted by Professional Loss Control, Inc., on July 7-10, 1980, was examined. The Second Triannual audit was conducted on July 11-15, 1983, by the same group. The 1983 audit report has not yet been published.

Southern Company Services, Inc. has performed yearly audits of the fire protection program on August 26-28, 1981, and August 23-24, 1982. There is a planned audit scheduled in the near future.

Within the areas examined there were no violations or deviations identified.

6. Fire Protection/Prevention Program Implementation (64704)

The inspectors made a tour of the plant to verify that the licensee was implementing a program for fire protection and prevention that was in conformance with the site procedures, NRC requirements, commitments to the NRC and applicable industry standards. As a whole, the general housekeeping throughout the plant site was very good and considered above normal for a typical operating plant. No improper storage of combustible or flammable materials, liquids or gases and no unsafe welding and cutting operations or other activities involving open flame ignition sources were identified. However, several minor items of needed improvement were identified for the radiation controlled areas of the auxiliary building. These included the quantity and storage location of compressed gases and combustible contaminated materials. The licensee is to review these items and take the appropriate action. This will be further evaluated during a subsequent NRC inspection.

The following fire protection systems were inspected and, except as noted, were found to be in service: three fire pumps, except the electric pump which was set for continuous operation (refer to paragraph 8); two water tanks; fire detection system, except fire pump running alarm was not operable since one pump is continuously operating; all automatic sprinkler systems listed in TS; carbon dioxide systems for service water, auxiliary and diesel generator buildings; eight fire hose stations in the auxiliary building; and, fire hydrants and associated equipment house Nos. N1Y43V120 and N1Y43V121. The systems appeared to be satisfactorily maintained. However, a number of valves did not have an identification number attached to the valve. The licensee stated that a program was in process to properly identify or tag each of these valves. This should help assure that the required maintenance and inspection are accomplished on the correct valve.

Vertical cable tray runs of at least 40 feet in the radiation area of the Unit 2 auxiliary building, such as tray numbers IAD24B, AHF24A and AHD21B, were found not to be provided with fire stops. Section 4.4.4.3.5 of the Fire Protection Program Re-evaluation Manual states that vertical cable tray runs of more than 20 feet with no penetration seals will be provided with a fire barrier of "Marinite" board sealed with a flame retardant coating. The failure to provide these fire stops is identified as Violation (364/83-19-03), Fire Stops Not Provided For Vertical Cable Trays.

The fire brigade fire fighting equipment was stored in lockers on 155' elevation of turbine building, adjacent to control room, diesel generator building, service water structure and river water pump house. Sufficient turnout gear (coats, boots, helmets, etc.) was provided to equip 14 fire brigade members. An adequate quantity of self contained breathing apparatus was provided to supply the fire brigade and emergency personnel for at least six hours. The apparatus cylinders can be refilled by two cascade systems. The fire brigade equipment was properly stored and appeared to be well maintained.

7. Inspector Followup Items

a. (Closed) Inspector Followup Item (348/81-06-05), Revision to Fire Protection Program Re-evaluation Manual. Amendment 5 to this manual was issued July 1982. This item is closed.

b. (Open) Inspector Followup Item (348-82-17-01 and 364/83-16-01), Review of Corrective Action Taken On Discrepancies Listed in QA/QC Audits of Fire Protection Installations. Corrective action has been completed on all items except the following:

- Smoke Detectors - Modifications to the detection systems required by PCN 82-1205 are scheduled to be completed by November 15, 1983.

- Fire Dampers - Modifications to all fire dampers has been completed except for one damper. Modifications to this damper PCN 81-1110/123, are scheduled to be completed by September 30, 1983.

- Automatic Sprinkler Systems - Refer to above paragraph 3.a.

- Fire Doors - Required modifications are practically complete.

c. (Closed) Inspector Followup Item (348/82-17-03 and 364/82-16-03), Initiation Of Calibration Schedule For Fire Protection System Gages. Licensee stated that all gages required to indicate volume/pressure reading for the surveillance requirements of the Technical Specifications had been placed under the maintenance calibration schedule. This item is closed.

8. Licensee Identified Item

(Open) Licensee Event Report (348/81-124), Fire Main Rupture in Low Voltage Switchyard. As previously reported in Report 50-348/82-17, the electric fire pump must be run continuously due to the number of leaks in the underground fire protection water piping system. A design to install a 100 gpm jockey pump to maintain pressure on the system has been completed but installation date has not yet been established. This item remains open.