



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

Report No.: 50-348/78-25

Docket No.: 50-348

License No.: NPF-2

Licensee: Alabama Power Company
P. O. Box 2631
Birmingham, Alabama 35291

Facility Name: Farley Unit 1

Inspection at: Farley Site, Ashford, Alabama

Inspection conducted: September 12-15, 1978

Inspector: A. K. Hardin

Approved by: R. C. Lewis
R. C. Lewis, Chief
Reactor Projects Section No. 2
Reactor Operations and Nuclear Support Branch

10/14/78
Date

Inspection Summary

Inspection on September 12-15, 1978 (Report No. 50-348/78-25)

Areas Inspected: Routine, unannounced inspection of licensee event reports, IE Circulars, plant operations, inspector identified items, safety injection system procedures and environmental qualification of electrical equipment inside containment. The inspection involved 25 hours onsite by one NRC inspector.

Results: Of the six areas inspected one item of noncompliance was identified in plant operations.

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DETAILS I

Prepared by: AK Hardin
 A. K. Hardin, Reactor Inspector
 Reactor Projects Section No. 2
 Reactor Operations and Nuclear Support Branch

10/12/78
 Date

Dates of Inspection: September 12-15, 1978

Reviewed by: R. C. Lewis
 R. C. Lewis, Chief
 Reactor Projects Section No. 2
 Reactor Operations and Nuclear Support Branch

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1. Persons Contacted

*W. G. Hairston, Plant Manager
 *J. D. Woodard, Assistant Plant Manager
 *W. B. Shipman, Maintenance Superintendent
 *D. C. Poole, Operations Superintendent
 *K. W. McCracken, Technical Superintendent
 *J. W. Kale, Jr., Operations Quality Assurance
 D. N. Morey, Maintenance Supervisor
 J. E. Garlington, Operations Supervisor
 L. W. Enfinger, Document Control Supervisor
 T. C. Grozan, Plant Engineer

*Denotes presence at Exit Interview.

2. Licensee Action on Previous Inspection Findings

None reviewed during this inspection.

3. Unresolved Items

None were identified during this inspection.

4. Exit Interview

An exit interview was held at the conclusion of the inspection on September 15, 1978, with Mr. W. G. Hairston and other members of Alabama Power Company as identified by an asterisk in paragraph 1.

The inspection findings were discussed, including the noncompliance discussed in paragraph 5, i.e. failure to maintain emergency diesel air start pressure. The licensee did not comment on the item of noncompliance.

5. Plant Operations

During a tour of the emergency diesel generator building, the inspector observed that the air receivers in the starting air system for the 1B diesel generator were reading 210 psig and 80 psig respectively for the A and B air receivers. Farley Unit 1 Standard Operating Procedure FNP-0-SOP-38.0 requires air receiver pressure for diesel automatic standby operation to be at 400 ± 25 psig for the 1B (4075 kw) diesel.

The diesel air starting systems are designed as two complete, and independent systems and the air receivers, according to FSAR Section 8.3.1.1.7.10, have sufficient capacity for a minimum of five consecutive starts. During the inspection and at the exit interview, the inspector stated the air receivers appeared to be inadequate to meet Technical Specification 3.8.1.1.b which requires that two separate and independent DG sets be operable in Mode 1. The licensee acknowledged the noncompliance and stated the cause appeared to be a mixup in the sequence in which work was being done on the air compressors. That is, the "A" compressor was taken out of service and the receiver allowed to bleed down prior to the "B" compressor being repaired and returned to service.

6. IE Circular 78-16

Circular 78-16 described failure of a limitorque valve actuator. The inspector verified that the licensee had reviewed the circular. The licensee had also received a letter from Limitorque Valve Corporation in which the failures experienced at other plants had been analyzed and in which limitorque made two recommendations for avoiding the type of failure described in the circular. The licensee is considering whether procedure changes would be of value in implementing Limitorque suggestions. The licensee stated they have sustained no failure of Limitorque valve actuators. The circular remains open pending a determination by the licensee if procedure changes are required.

7. IE Circular 78-06 "Potential Common Mode Flooding of ECCS Equipment Rooms"

The inspector verified that the licensee had reviewed the circular and had determined there is no common drain piping between the ECCS rooms.

The inspector reviewed prints of the system, with the licensee. There were no common equipment drains shown on the prints. The licensee also stated a preventative maintenance program will be set up for level switches inside the ECCS pump rooms. The licensee's actions relative to the circular were considered adequate. The circular is closed.

8. Licensee Event Reports

Two "30 Day" licensee event reports were reviewed at the site. These were;

LER No. 52 - "Failure of Steam Pressure and Flow Indicator, PI-496 and FI-495."

LER No. 53 - "Failure of Pond Level Switch LS-511."

Through record review, observation and discussion with licensee personnel the inspector determined that licensee reviews and corrective actions were adequate, reporting requirements were met, and that the events did not result in operation representing any significant hazard to the health and safety of the public or the environment.

9. Procedures For Operator Action Prior to or Following SIS Reset

At Farley Unit 1, the safety injection system (SIS) can be reset after one minute. If pumps, such as the residual heat removal pumps or charging pumps have been shutdown, and the containment isolation valve lineup has been completely or partially reset, a loss of offsite power (LOSP) will restart on the emergency bus and in the designed sequence the SI pumps, and realign valves for the safety injection sequence. However, if another safety injection signal occurs, a manual SI must be initiated. In this case only the correct valve alignment will occur automatically. The pumps required following an SI signal must be started manually. The licensee does not have specific procedural steps which directs the operator to manually start each required pump. In order for a manually initiated SI following an unrequired SI to start the required pumps, the SI must be reset in the control room and at the sequencer cabinet located outside the control room, in the auxiliary building.

The licensee stated there were some mitigating circumstances associated with the inspector concerns which should be weighed against the potential for complicating procedures by postulating "what if" situations. These were;

1. Following a SI, the Boron Injection Tank has discharged into the reactor coolant system.

2. The control rods banks have been tripped into the reactor core.
3. Coolant temperature is beginning to decrease since the charging pumps are adding cool RWST water.

The licensee's point is, that practically all events associated with an unrequired SI occurs as if the SI was required and that a required SI following immediately after an SI reset would be starting from a point of much lower potential for significant health and safety risks.

The licensee also stated they believe the probability of a required SI occurring during the specific period they would be recovering from an unrequired SI would be very low. However, on September 19 the licensee sent a revised copy of their abnormal operating procedure AOP-4 entitled "Recovery From a Spurious Safety Injection" to Region II. The procedure contained a revision which when combined with operator training should prevent failure to operate the ECCS equipment correctly. The item is closed.

10. Environmental Qualification of Electrical Equipment Inside Containment

Certain deficiencies have been identified in the environmental qualification of electrical equipment inside containment at various sites. The purpose of this inspection was to ascertain the licensee's plans and program for locating and reviewing appropriate documentation which will demonstrate environmental qualification of safety-related electrical components at the Farley Unit 1 facility.

IE Circular 78-08 identified seven areas of concern. A listing of these seven areas was provided to site management by the inspector as was a copy of the references 2 through 14 which were listed in an attachment to Circular 78-08. Corporate management representatives transmitted the circular to Southern Company Services (SCS) requesting a recommendation for a response to the circular.

Following SCS review and recommendations, the licensee is conducting a study to determine the following:

- a. What form of information is available for the Farley Plant?
- b. What do specifications include and/or require relative to environmental qualifications and documentation.
- c. What review was performed by the designer to assure that specifications were met and what documentation was provided.

d. If certification is provided, where are the test results.

Items a. thru d. are expected to be completed by September 29, 1978.

As part of the above study, the licensee purposes to verify environmental records for specific examples of the type of equipment listed in Circular 78-08. This aspect of the study is expected to be completed by October 31, 1978.

Prior to the issuance of Circular 78-08, the licensee had identified certain stem mounted limit switches which were not environmentally qualified. Replacement of these switches has been scheduled for the period September 15-30, 1978.

On September 14, 1978, the licensee verbally informed the inspector that some terminal boards in protected terminal boxes had not been tested at the specific environment in which they might have to operate. The licensee stated they would provide a supplemental report by September 29, 1978, to IE Bulletin 78-02, "Terminal Block Qualification" describing the problem and their proposed corrective action.