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Alabama Power
the southern electric system

March 27, 1981

J. M. Farley Nuclear Plant NRC
Inspection of December 1-31, 1980

Mr. James P. O'Reilly
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, N.W.
Suite 3100
Atlanta, Georgia 30303

Re: Report Number 50-348/80-42
Report Number 50-364/80-53

Dear Mr. O'Reilly:

This letter is Alabama Power Company's response to the violations in the subject inspection report:

- A. Technical Specification 3.7.4 requires that at least two independent service water loops be operable in Modes 1, 2, 3 and 4.

Contrary to the above, two independent service water loops have not been operable since initial startup of the plant in 1977 in that the service water lube and cooling water supply headers for loops "A" and "B" have been cross-connected. This condition has violated both the independence of the loops as well as their operability in that it would have rendered the system incapable of performing its specified function had the site been subject to certain occurrences such as loss of off-site power concurrent with loss of one diesel generator. In this instance the service water loop powered from the remaining diesel generator would have been lost due to a loss of lube and cooling water from the affected loop.

- B. 10CFR50 Appendix B, Criterion V, requires that instructions, procedures, or drawings include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished. The accepted Quality Assurance Program, Chapter 17 of the Final Safety Analysis Report, Section 17.2.6, states that procedures shall include acceptance criteria. This is implemented by Section 5.4.2 of the Operations Quality Assurance Policy Manual which

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states that procedures shall incorporate applicable and appropriate quantitative or qualitative criteria for determining that important activities have been satisfactorily accomplished.

Contrary to the above, suitable acceptance criteria were not provided in that preoperational test procedures TP-011-3-001, Service Water Intake Structure Lube and Cooling Water Functional Test, and TP-011-5-002, Service Water Preoperational Test, did not contain appropriate criteria for determining that the tests had been satisfactorily accomplished. This was evidenced by the completion of the tests on February 8, 1980 and September 30, 1980, respectively, with the Lube and Cooling Water trains cross-connected, and this fact was neither identified nor reported as being unsatisfactory.

Reason for Violations

During the initial plant construction an inadequate design drawing resulted in crossing A and B train service water lube and cooling water supply such that A train lube and cooling was supplied from B train service water pumps and B train lube and cooling was supplied from A train service water pumps. Because of inadequate design drawings, field verification of the installed system did not identify the cross train condition in either Unit 1 or 2.

During the Unit 1 second refueling outage the installation error was identified during implementation of a design change to change piping material in the service water lube and cooling lines. The design change required shutdown and isolation of one train of service water. The problem was immediately recognized when a tagging order was issued for required isolation. The tagging order was not executed as a result of this problem.

The "inadequate design drawing" resulted from the following:

1. A drafting error on the equipment layout drawing incorrectly designated the B train lube and cooling strainer as the A strainer and vice-versa.
2. Additionally, the tie between the lube and cooling strainer and the appropriate service water supply trains as shown on the P & ID's were on two different sheets and the location references for these ties were ambiguous.
3. The drawings noted above were used in creating the piping isometric drawings for the interconnections piping. As a result of the above drawings' problems, the isometric drawing was incorrectly produced.

4. Installation of the piping was then made in accordance with the incorrect isometric.

At turnover from construction to startup a walkdown of the system was made to verify that the system was built in accordance with the drawings. The acceptance criteria for proving that the lube and cooling trains were supplied from their respective service water trains should have been fulfilled by this walkdown. However, the error discussed above on the piping isometric drawings resulted in the error not being identified.

Corrective Action

1. A design change (SM 79-403) has been implemented to provide proper train separation.
2. Engineering change notices were issued to correct the equipment layout drawing and the isometric drawing has been revised.

Results Achieved

Train separation of the service water system has been established and drawings are being revised to reflect the proper system configuration.

Steps Taken to Avoid Further Violations

1. The river water system is the only other system where a potential for this type of design error could exist. River water and service water systems are the only safety-related plant systems having self supporting auxiliaries where trains could be crossed. As part of the corrective action the river water system has been walked down to verify proper train separation.
2. Current administrative controls used by the operating plant staff to implement design changes have been reviewed and are considered adequate to prevent similar occurrences in the future. These administrative controls, in part, provide for formal documented engineering review of the design change prior to implementation. This engineering review addresses the following concerns:
 - a. To determine if the proposed design change is reasonable and can be expected to achieve the desired results;
 - b. To determine if design development is adequate for implementation;
 - c. To identify and resolve any omissions or errors in the design;

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- d. To verify compliance of the design with technical specifications and other license requirements.
 - e. To determine if plant procedure changes or changes in the plant training program will be required because of the design change, and
 - f. To verify that test and inspections required as a result of the design change have been identified.
3. In order to insure that future drawing errors within Southern Company Services, Inc. (SCSI) are minimized prior to transmitting a drawing to the field, SCS procedures are scheduled to be revised by May 1, 1981 to add an additional reviewing step by an Engineer or Designer. The implementation of the revised procedures will be audited by the SCS Quality Assurance Department.

Date of Full Compliance

Full compliance will be achieved upon receipt of corrected drawings, approximately May 1, 1981.

- C. Technical Specification 6.8 requires that written procedures be established, implemented and maintained. Section 4.1 of Administrative Procedure FNP-O-AP-38, "Use of Open Flame" states in part that smoking is prohibited in the diesel generator building.

Contrary to the above, on December 15, 1980, evidence was found that smoking occurred in all five of the diesel generator rooms in that numerous cigarette butts were observed in the diesel generator rooms.

Reason for Violation

The violation resulted from failure of plant and/or construction personnel to observe "No Smoking" signs in the diesel generator rooms.

Corrective Action

1. Prior to the fall of 1980, smoking was prohibited in the diesel generator building except in the west end of the north foyer which was posted as "Smoking Allowed". During the fall of 1980 following the identification of the smoking problem in the diesel building, the "Smoking Allowed" area was redesignated as a "No Smoking" area.
2. A memorandum (dated March 11, 1981) has been issued by the Plant Manager and the Construction Project Manager reinstructing all Nuclear Generation Department Plant personnel and all Construction Department site personnel regarding the administrative controls governing smoking in safety-related areas. Personnel found violating these controls will be subject to disciplinary action.

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Results Achieved

Subsequent area inspections have revealed no continued smoking problem in the diesel generator building.

Steps Taken to Avoid Further Violation

The corrective action taken coupled with routine inspections by the Plant Fire Marshall will ensure no further violation.

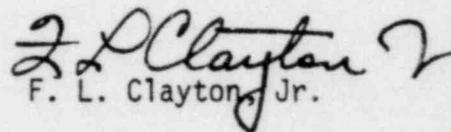
Date of Full Compliance

Full compliance has been achieved.

Affirmation

I affirm that this response is true and correct to the best of my knowledge, information and belief.

Very truly yours,


F. L. Clayton, Jr.

FLCJr/JRC:nac

xc: Mr. J. M. Farley
Mr. W. O. Whitt
Mr. W. H. Bradford
Mr. H. O. Thrash
Mr. O. D. Kingsley
Mr. W. G. Hairston
Mr. J. R. Campbell
Mr. J. W. McGowan
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