FORD 1

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FACIL:50-400 Shearon Harris Nuclear Power Plant, Unit 1, Carolina 05000400
AUTH.NAME AUTHOR AFFILIATION
MERSCHOFF,E.W. Region 2 (Post 820201)
RECIP.NAME RECIPIENT AFFILIATION
EURY,L.W. Carolina Power & Light Co.

SUBJECT: Ack receipt of 910725 response to notice of violation issued on 910627 concerning activities conducted at facility.Written statement describing steps to be taken to correct violations,needed.

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NOTES:Application for permit renewal filed. 05000400

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RIDS/FORD 1 DOCUMENT

OCT 2 5 1991

Official copy

Carolina Power and Light Company
ATTN: Mr. Lynn W. Eury
Executive Vice President
Power Supply
P. O. Box 1551
Raleigh, NC 27602

Gentlemen:

SUBJECT: NRC INSPECTION REPORT NO. 50-400/91-13

Thank you for your response of July 25, 1991, to our Notice of Violation issued on June 27, 1991, concerning activities conducted at your Harris facility. We have examined your response and find that it meets the requirements of 10 CFR 2.201.

In your response, you denied that you were in violation of Technical Specification Limiting Condition for operation 3.7.1.2 which requires three Auxiliary Feedwater Pumps and their associated flow paths to be operable, as described in the Notice of Violation cited above.

After careful consideration of the bases for your denial of the violation, we have concluded, for the reasons presented in the enclosure to the letter, that the violation occurred as stated in the Notice of Violation. Therefore, in accordance with 10 CFR 2.201(a), please submit to this office within 30 days of the date of this letter a written statement describing steps which have been taken to correct the violation, the results achieved, corrective steps which will be taken to avoid further violations, and the date when full compliance will be achieved.

We will examine the implementation of your action to correct the violation during future inspections.

The response directed by this letter and its enclosure are not subject to the clearance procedures of the Office of Management and Budget as required by the paperwork Reduction Act of 1980, Pub. L. No. 96-511.

We appreciate your cooperation in this matter.

Sincerely,

Ellis W. Merschoff, Acting Director
Division of Reactor Projects

Enclosure:
Evaluations and Conclusions

cc w/encl: (See page 2)

IE01

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ENCLOSURE

EVALUATIONS AND CONCLUSIONS

On June 27, 1991, a Notice of Violation (Notice) was issued for a violation identified during a routine NRC inspection. Carolina Power & Light (CP&L) responded to the Notice on July 25, 1991. CP&L denied that they were in violation of Technical Specification (TS) Limiting Condition for Operation 3.7.1.2 which requires three operable auxiliary feedwater pumps and associated flowpaths in MODES 1-3.

Restatement of Violation

Technical Specification Limiting Condition for Operation 3.7.1.2 requires three auxiliary feedwater pumps and associated flow paths be operable. Action b of this specification requires the plant to proceed from Hot Standby to Hot Shutdown within six hours if two auxiliary feedwater pump flow paths are inoperable.

Contrary to the above, from approximately 11:18 a.m. - 5:22 p.m. on May 19, 1991, and 12:14 a.m. - 6:47 a.m. on May 20, 1991, the plant was operated in the Hot Standby mode with two inoperable auxiliary feedwater pump flow paths.

Summary of Licensee's Response

The Licensee indicated that the plant was in MODE 3 preparing for plant startup; steam generator levels were being maintained by feeding with one motor-driven auxiliary feedwater pump. To perform this evolution without causing a plant cooldown, flow was provided to one steam generator at a time. Feeding the steam generators in this manner required flow to be isolated to two generators while throttling flow to the third generator being filled. The licensee then stated that during plant startup, the requirement to have full Auxiliary Feedwater flow available is not necessary as the decay heat load would be minimal. Further, the licensee stated that if Auxiliary Feedwater did actuate during plant startup, one of the operator's immediate actions would be to throttle or secure flow to prevent overfilling the steam generators.

The licensee then stated that using the Auxiliary Feedwater system for plant startup was the original design of the system, and cited a number of references which were reviewed and approved by the NRC.

The licensee agreed that Technical Specification 3.7.1.2 does not clearly allow this mode of operation, therefore a Technical Specification change will be submitted by December 1, 1991, requesting operator-throttled Auxiliary Feedwater flow in MODES 1, 2, and 3 to maintain steam generator levels. The licensee has also implemented interim corrective actions which include instructions to use the main feedwater system whenever practical. The Auxiliary Feedwater system would be used in an off-normal situation provided it is declared inoperable whenever required valves are not fully-open.

This would place the plant in a six hour Limiting Condition of Operation whenever the Auxiliary Feedwater system is used to feed the steam generators during startup. The licensee included this instruction on plant operability into appropriate plant procedures.

NRC Evaluation

The licensee is clearly in violation of the technical specifications in shutting isolation valves from the motor driven AFW pumps to the steam generators during Modes 2 (Startup) and 3 (Hot Standby) thereby making the pumps, and associated trains, inoperable. The resident inspectors reported that the AFW system flow paths from the motor-driven pumps to the steam generators had been manually blocked by the Shearon Harris staff in the following manner:

(1) Motor operated isolation valves 1AF-55, 1AF-93 and 1AF-75, the isolation valves from the two motor-driven AFW pumps to the three steam generators, were closed. The manually operated flow control valves, 1AF-49, 1AF-50 and 1AF-51, were also closed.

(2) An AFW pump was started and the appropriate valves then opened to fill each steam generator, in sequence.

(3) This was observed on May 20, 1991 by the inspectors while the plant personnel were engaged in startup operations.

(4) The AFW system was being used to fill the steam generators because of operational problems with the main feedwater system.

(5) The AFW system had been used in this manner from 11:18 on May 19 through the startup activities observed by the inspectors on May 20.

(6) Examination of the control operator's logs by the inspectors indicated that the AFW flow paths had been blocked in this manner twice, while the plant was in Mode 3 (Hot Standby), for greater than six hours. Additionally, the plant had entered Mode 2 (Startup) at 8:20 a.m., from Mode 3, with the AFW system not properly aligned.

Technical Specification 3.7.1.2 requires that the three AFW pumps and associated flow paths be operable in Modes 1 (power operation), 2, and 3.

Since the AFW system is to be initiated automatically, the staff position on the substitution of manual action for automatic operation is applicable. This position, found in Enclosures 3 and 7 to memorandum from E. Butcher, Chief, OTSB/NRR to L. Kintner and F. Hebdon, NRR, dated September 20, 1988, states:

> "Generally manually actions cannot be used to substitute for an automatic function. If the automatic function is disabled or bypassed in a way that is not allowed by the TS, then the equipment is inoperable and the appropriate action statements should be followed. In rare instances the NRC may allow such substitution for a short term under enforcement discretion."

Since the automatic functions were disabled and the Technical Specifications do not address manual actions, the licensee should have remained in Mode 4 (hot shutdown); the licensee violated Technical Specification 3.0.4 and 3.7.1.2 by proceeding into Modes 3 and 2 with the motor-operated AFW pump trains inoperable.

The licensee provided a submittal dated July 25, 1991 in which the licensing SER (NUREG-1038), Nov. 1983) is cited as evidence that the staff, having reviewed and concurred in the design of the Shearon Harris AFW system, found its use in startup acceptable at that time. However, the staff had no specific knowledge of the closure of the AFW motor-driven pump flow trains nor did the staff find such use acceptable in the SER. The licensee submitted information in the FSAR, indicating only that the AFW system was intended for use in startup; the SER merely acknowledged the licensee's statement. Later in Supplement 4 (dated October 1986) the use of the AFW system in plant startup for Shearon Harris was approved to eliminate the need for system operability testing prior to startup. Again, the Supplement was silent as to how the licensee intended to use the AFW system during startup operations. In any case, Technical Specification 3.7.1.2 is clear as to intent: to have the AFW system operate automatically, without qualification, in Modes 1, 2, and 3.

Therefore, closure of the isolation valves in the motor-operated AFW pump trains as specified in Section 2b, "Facility Tours and Observations," Subsection (1) of NRC Report No. 50-400/91-13, is found to be a clear violation of the Technical Specifications.

NRC Conclusion

For the above reasons, the NRC staff concludes that the violation occurred as stated.