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 50-270 Oconee Nuclear Station, Unit 2, Duke Power Co. 05000270  
 50-287 Oconee Nuclear Station, Unit 3, Duke Power Co. 05000287

AUTH. NAME TUCKER, H.B. AUTHOR AFFILIATION Duke Power Co.  
 RECIP. NAME RECIP. AFFILIATION Ofc of Enforcement (Post 870413)

SUBJECT: Responds to NRC 900816 ltr re violations noted in Insp Repts  
 50-269/90-17, 50-270/90-17 & 50-287/90-17.

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**DUKE POWER:**

September 13, 1990

Director, Office of Enforcement  
U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D.C. 20555

Subject: Oconee Nuclear Station  
Docket Nos. 50-269, -270, -287  
Inspection Report Nos. 50-269/90-17, 50-270/90-17, 50-287/90-17  
Reply to Notice of Violation

By a letter from S. D. Ebnetter dated August 16, 1990, the NRC transmitted to me a Notice of Violation and proposed imposition of Civil Penalty for a violation reported in NRC Inspection Report 50-269/90-17, 50-270/90-17, and 50-287/90-17. In accordance with the provisions of 10CFR 2.201, I am submitting Duke's response to the Notice of Violation (attached). I have also enclosed a check for the amount of twenty-five thousand dollars (\$25,000.00) as payment for the civil penalty proposed.

The attachment to this letter describes the corrective steps which will be taken to avoid further violations. In addition, several other valve related programs and projects are currently in progress to enhance the performance and maintenance of safety-related valves. These programs and projects, which are either self-initiated or committed under other regulatory requirements (see LER 269/90-10), should help prevent recurrence of further violations.

I declare under penalty of perjury that the statements set forth herein are true and correct to the best of my knowledge.

Very truly yours,

Hal B. Tucker

MAH/115/lcs

Attachment

*Rec'd w/ check for  
\$25,000.00 # 782060*

U. S. Nuclear Regulatory Commission  
September 13, 1990  
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cc: Mr. S. D. Ebnetter  
Regional Administrator, Region II  
U. S. Nuclear Regulatory Commission  
101 Marietta Street, NW, Suite 2900  
Atlanta, Georgia 30323

Mr. P. H. Skinner  
NRC Resident Inspector  
Oconee Nuclear Station

Mr. L. A. Wiens  
Office of Nuclear Regulation  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555

ATTACHMENT 1

DUKE POWER COMPANY  
OCONEE NUCLEAR STATION

REPLY TO NOTICE OF VIOLATIONS  
NRC INSPECTION REPORT 50-269/90-17, 50-270/90-17, 50-287/90-17

Violation 1

10 CFR Part 50, Appendix B, Criterion XVI requires, in part, that measures shall be established to assure that conditions adverse to quality be promptly identified and corrected. In the case of significant conditions adverse to quality, the measures shall assure that the cause of the condition is determined and corrective action taken to preclude repetition.

Contrary to the above, in 1982, Duke Power failed to take corrective action for a condition adverse to quality even though personnel recognized that a loss of instrument air would prevent operation of the Penetration Room Ventilation System (PRVS), an Engineered Safeguards system, that was required to mitigate the consequences of an accident. Specifically, this condition was documented in a report titled "Loss of Instrument Air," such that for instrument air dropping from 100 to 70 psig, "PR-13 (PR Fan "A" Inlet Control) closes and PR-17 (PR Fan "B" Inlet Control) closes which prevents operation of the Penetration Room Ventilation System." Further, in a 1984 report routed to high level Duke Power management, the licensee failed to take corrective action for the adverse condition. Even though the licensee had at least two other instances in which this adverse condition should have been recognized and corrected (in March 1987 during a design study initiated to identify active valves and in August 1988 during the licensee's review in response to NRC Generic Letter 88-14), the licensee continued to fail to take corrective action for this adverse condition until June 13, 1990, after an NRC Resident Inspector identified the adverse condition.

This is a Severity Level III violation. (Supplement I)  
Civil Penalty - \$25,000.

Response

(1) Admission or Denial of the Violation

The violation is correct as stated. The violation was previously reported to the NRC as Licensee Event Report (LER) LER 269/90-10.

(2) The Reasons for This Violation if Admitted

As stated in the Notice of Violation, the reason for this violation is original design deficiency, including deficient documentation. The violation was compounded by failure to recognize the significance of the problem and to take appropriate corrective action. The Penetration Room Ventilation System (PRVS) was revised by Duke Power personnel such that critical valves could fail shut during a Design Basis Event.

Documentation of the basis or necessary approvals for this revision cannot be found. The FSAR and the vendor drawings were not reviewed to assure documentation of the actual configuration of the plant. The errors occurred in 1970 and the discrepancy was introduced at that time.

Contributing to this violation were a scoping decision and a technical error, regarding our review of air-operated valves in response to GL 88-14. Our review of the Instrument Air system, in response to GL 88-14, was limited to those pneumatically operated components which are required to move to perform their safety function. Also, this verification review was based on the assumption that the initial positions of passive components are actually the appropriate post-accident positions and that these passive components actually fail passively. As a result, PR-13 and PR-17 were omitted from both the design verification and the verification by test.

(3) The Corrective Steps That Have Been Taken and the Results Achieved

The immediate corrective action was to declare the PRVS inoperable for all three Oconee units. All units were placed in a Technical Specification action statement requiring the units to be shutdown within 12 hours. Travel stops were installed on PR-13 and PR-17 and tests were performed to verify that the PRVS would provide design flow without instrument air. The positioning of the travel stop was such that an acceptable post-accident position of the valves would be maintained after a loss of instrument air, so that these components could be correctly considered passive. The system was then declared operable and returned to service.

Subsequent corrective actions included an Operability Evaluation to address operation with travel stops installed, and potential failure of the cross-connect valve PR-20. We also performed a review of all Oconee air-operated valves, both active and passive, in accordance with the GL 88-14 request for failure position testing of safety-related air-operated components failure modes versus accident requirements. In addition, Operations personnel performed an evaluation of existing procedures to assure that they provide adequate guidance for operation of the PRVS with travel stops in place. Performance and maintenance procedures were revised to account for the travel stops and to ensure travel stops are properly reinstalled after maintenance.

(4) The Corrective Steps Which will be Taken to Avoid Further Violations

The following corrective actions are planned in regards to this violation:

- a. A test program will be defined to test additional valves to verify failure positions as required by GL 88-14.
- b. The Oconee FSAR pertaining to PRVS will be reviewed and revised as necessary.

- c. Duke will perform a design study to determine the appropriate permanent resolution for valves PR-13 and PR-17, and clear temporary modifications 742, 743 and 744.

(5) The Date When Full Compliance will be Achieved

- a. The test program to verify valve failure positions will be defined by January 15, 1991.
- b. Oconee FSAR pertaining to PRVS will be updated by June 1, 1991.
- c. The design study for a permanent resolution for valves PR-13 and PR-17 will be completed by October 1, 1990.

Violation 2

10CFR 50.9 requires, in part, that information provided to the Commission by a licensee shall be complete and accurate in all material respects.

Contrary to the above, information provided to the Commission in the licensee's responses to GL 88-14 dated May 8, 1989 and July 20, 1989 was not complete and accurate in all materials respects. The information was not accurate in that it indicated that verifications had been performed for all "active" air operated components. However, verifications had not been performed for two active flow control valves for the PRVS, PR-13 and PR-17, because they had not been properly categorized as "active." The information was material because it concerned the operability of safety-related components.

This is a Severity Level IV violation. (Supplement VII)

Response

(1) Admission or Denial of the Violation

The violation is correct as stated. The violation was previously reported to the NRC as LER 269/90-10.

(2) The Reasons for this Violation if Admitted

The reason for this violation was that past design studies failed to identify PR-13 and PR-17 as active components. This occurred because the normally-open position of the valves appeared to be the correct post-accident position. However, they were actually active at that time because PRVS flow was to be maintained in an acceptable range by throttling PR-13 and PR-17 during an accident. In addition, the scope of Oconee's review of air-operated component failure positions, in compliance with GL 88-14, was limited to active valves. This was due to the interpretation that GL 88-14 was primarily directed at assuring the instrument air system was designed and maintained such that safety-related components would operate as needed in an accident.

(3) The Corrective Steps That Have Been Taken and the Results Achieved

As indicated in LER 269/90-10 and response to Violation 1, travel stops have been installed on pneumatic throttle valves PR-13 and PR-17 and tests were performed to verify their proper design function during a loss of Instrument Air event. In addition, Duke Power performed a review of all Oconee air-operated valves, both active and passive, in accordance with the requirements of GL 88-14. This review verified failure modes versus accident requirements. Also, the existing operating procedures were evaluated to assure they provide adequate guidance for operation of these valves with travel stops in place.

(4) The Corrective Steps Which will be Taken to Avoid Further Violations

An initial review of our response to GL 88-14 for all three stations (Oconee, McGuire, Catawba) has recently been completed. As a result, our response to the Generic Letter for all three stations will be supplemented.

This initial review has identified a number of valves, in all three stations which were not included on the list of safety-related valves generated for our response to GL 88-14. As a result, an action plan is being developed to address the identified deficiencies. At a minimum, a revised list of both active and passive safety-related air-operated valves and components will be developed. All active and passive air-operated safety-related valves and components are to be verified by test, at least once.

Accordingly, an initial supplemental response to GL 88-14 for Oconee, McGuire, Catawba will be submitted. This initial supplement will provide information on scope of the action plan.

(5) The Date When Full Compliance will be Achieved

The initial supplemental response will be provided by no later than September 20, 1990.