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December 30, 1982

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

Re: Oconee Nuclear Station
Docket No. 50-287

Dear Mr. O'Reilly:

Please find attached Reportable Occurrence Report RO-287/82-15. This report is submitted pursuant to Oconee Nuclear Station Technical Specification 6.6.2.1.a(2) which concerns an operation subject to a limiting condition for operation which was less conservative than the least conservative aspect of the limiting condition for operation established in the Technical Specifications, and describes an incident which is considered to be of no significance with respect to its effect on the health and safety of the public. My letter of December 23, 1982 addressed the delay in preparation of this report.

Very truly yours,

Hal B. Tucker

Hal B. Tucker

JCP/php
Attachment

cc: Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

INPO Records Center
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Mr. W. T. Orders
NRC Resident Inspector
Oconee Nuclear Station

Mr. Philip C. Wagner
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

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DUKE POWER COMPANY
OCONEE NUCLEAR STATION

Report Number: RO-287/82-15

Report Date: December 28, 1982

Occurrence Date: December 12, 1982

Facility: Oconee Unit 3, Seneca, South Carolina

Identification of Occurrence:

Two Manual Containment Isolation (Instrument Air) Valves were discovered open, and it was determined that containment integrity technically had been violated.

Conditions Prior to Occurrence: Cold Shutdown

Description of Occurrence:

December 12, 1982 two Manual Containment Isolation Valves, (instrument air valves 3IA-90 and 3IA-91), were found open when operators were making preparations to line up instrument air to the Unit 3 Reactor Building.

These valves had been opened during the previous forced outage due to the 3A Steam Generator Leak per Removal and Restoration (R&R) procedure. They were then kept open to supply instrument air to power tools used to furmanite Unit 3 Reactor Coolant Pumps (RCP) found leaking at the beginning of startup. The work was completed on December 8, 1982. Between the days of December 6, 1982 and December 12, 1982, Unit 3 was at or above 300 psig and 200°F with fuel in the core. At these conditions, Technical Specification 3.6.1 requires that containment integrity be maintained. One condition for containment integrity states that all non-automatic containment isolation valves and blind flanges are closed as required. Therefore, from December 6, 1982 until December 12, 1982 when Unit 3 was at or above the above mentioned temperature and pressure, Technical Specification 3.6.1 was violated.

Apparent Cause of Occurrence:

The pre-heatup checklist section of the Unit Startup Procedure included a step to review the R&R Book for any items which may affect unit heatup. On December 4, 1982, the Assistant Shift Supervisor noticed that the subject valves were outstanding due to the need for instrument air for furmaniting the RCP during startup. This particular R&R was not required to be closed out prior to continuing heatup. The Assistant Shift Supervisor, assuming that another R&R audit would be done prior to going critical and would result in closing these valves, signed the step off as complete without noting the open IA valves. He was not aware that the R&R audit prior to criticality, which was once included, had been deleted from Unit 3 Startup Procedures. Later in the pre-heatup checklist, there is also a checklist for the manual Reactor Building isolation valves themselves. While reviewing these checklists, it was verbally noted that valves 3IA-90 and 3IA-91 were open. Control Room personnel instructed

the operators to sign these off as closed since an R&R was outstanding on the valves to "flag" them as still being open. The R&R was to have ensured that the valves were closed after the furmanite process was completed. Afterwards, however, no Control Room personnel noted the importance of the outstanding R&R on the Reactor Building manual isolation valves. An inadequate review of the unit's outstanding items was done by the Shift personnel during that four day period. This incident was caused by personnel error (incomplete review of the unit's outstanding items as required by turnover procedures), and also by a deficiency in procedure (deletion of R&R audit from precriticality check).

Analysis of Occurrence:

Valves 3IA-90 and 3IA-91 are 2" manual containment isolation valves in an instrument air line which is not normally open to the containment atmosphere. The normal operating pressure of instrument air is 80-100 psig. With both of these valves open, the entire instrument air line to the local isolation valves in the containment was pressurized to 80-100 psig. The local valves in the containment were closed during the time period in question. This was determined from the fact that no problems existed in holding instrument air pressure in the instrument air header. Since the integrity of the instrument air line was intact then no open flow path to the environment existed.

To have a release to the environment, the piping on both sides of the containment penetration would have to break in conjunction with an accident involving release to the containment. Even though the piping is non-safety-related and non-seismic on each side of the penetration, the probability of combination of events is very small.

Therefore, it can be stated that the health and safety of the public were not affected by this incident.

Corrective Action:

At the time of discovery of the open valves, Unit 3 was in a cold shutdown condition. Therefore, no immediate corrective action was required. The final corrective action to prevent recurrence of this incident is listed below.

1. The Shift Turnover Sheet has been revised to have the Unit Supervisor and Control Operator review the R&R Book each shift, and sign off specifically that the R&R Book has been reviewed. This will ensure that the Control Operator/Supervisor is aware of any existing problems or any problem that might occur during his shift.

2. The Shift Turnover Procedure has been revised to ensure that any equipment taken out of service which places the unit under an Action Statement of a Limiting Condition for Operation will be documented.

3. The Removal and Restoration procedure has been revised to show the plateau/time frame in which each R&R must be cleared prior to placing the unit in an Action Statement of a Limiting Condition for Operation.

4. The Startup and Trip Recovery procedures have been revised to ensure that the Turnover Sheets, Red Tag Log, White Tag Log, and the Removal and Restoration Book are reviewed just prior to criticality.

5. The Startup and Trip Recovery procedures have been revised to have the Unit Supervisor ensure that all Limiting Conditions for Operation as specified in Technical Specifications are either satisfied or properly documented on the SRO and RO Turnover Sheets just prior to criticality.

6. A training package has been issued stating that valves/equipment that have an R&R outstanding will be signed off on a checklist. That checklist will note that an R&R is issued on that valve/equipment.

7. When it is required to open manual containment isolation valves above 200°F and 300#, a person will be stationed at the outside Reactor Building isolation valve. That person will be in direct communication with the Control Room, and will be directed to close the valve should an accident occur.

8. All individuals responsible for personnel error associated with this event will review this report and will be counseled as to their actions on or before December 31, 1982.