

**DUKE POWER COMPANY**

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HAL B. TUCKER  
VICE PRESIDENT  
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March 29, 1983

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Mr. James P. O'Reilly, Regional Administrator  
U. S. Nuclear Regulatory Commission  
Region II  
101 Marietta Street, NW, Suite 2900  
Atlanta, Georgia 30303

Re: Oconee Nuclear Station  
Docket No. 50-269

Dear Sir:

Please find attached Reportable Occurrence Report R0-269/83-08. 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 March 17, 1983 addressed the delay in preparation of this report. In that letter, this incident was mistakenly referred to as R0-269/83-07. Please note this correction.

Very truly yours,

*H. B. Tucker / HBT*

Hal B. Tucker

JCP/php  
Attachment

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

INPO Records Center  
Suite 1500  
1100 Circle 75 Parkway  
Atlanta, Georgia 30339

Mr. J. C. Bryant  
NRC Resident Inspector  
Oconee Nuclear Station

Mr. E. L. Conner, Jr.  
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-269/83-08

Report Date: March 29, 1983

Occurrence Date: March 3, 1983

Facility: Oconee Unit 1, Seneca, South Carolina

Identification of Occurrence: Failure of LHP-25 valve to open fully during functional testing making it and one HPI train inoperable

Conditions Prior to Occurrence: 100% Full Power

Description of Occurrence: On March 3, 1983, at 1030, valve LHP-25 failed to open fully from the Control Room during its quarterly Operational Valve Functional Test. Additional attempts were made to electrically open the valve fully. After it failed to open further, LHP-25 and one independent HPI train were both considered inoperable. LHP-25 is a high pressure injection suction valve that provides the HPI pumps with suction from the Borated Water Storage Tank (BWST).

Apparent Cause of Occurrence: The valve could not be fully opened from the Control Room because the torque switch on the valve operator tripped repeatedly at a less than fully opened valve position. The torque switch is a device which will de-energize the motor contactor once the torque on the valve stem reaches a given value. The torque switch prevented LHP-25 from reaching a fully open position. Prior to this incident, the torque switch on LHP-25 was set at a value of 1 (lowest setting). After LHP-25 was cycled from the breaker, the torque switch setting was increased from 1 to 2. This means that now the torque switch on LHP-25 will trip at a higher torque value. In general, the torque switch is set at the lowest value which will allow the valve to function properly.

LHP-25 is tested once every three months. During its last functional test on December 7, 1982, LHP-25 failed to open (See RO-269/82-19). After the valve was manually cracked open, it was successfully cycled from the RZ module in the Control Room. LHP-25 has needed manual assistance before it would function properly during four out of the last nine tests. The reason LHP-25 failed to operate properly on March 3, 1983 cannot be reasonably attributed to a design, manufacturing, construction or installation deficiency. This incident has therefore been assigned a classification of component failure.

Analysis of Occurrence: LHP-25 is redundant to LHP-24 and is an ES valve which opens on an ES actuation to line the HPI pump suction up to the BWST. Although LHP-25 did not reach the fully opened position, it opened approximately to mid-position and would have provided some flow to the BWST outlet header. LHP-24 was operable at the time LHP-25 would not fully open. Had an ES actuation occurred, LHP-24 would have opened to provide the HPI pumps with suction from the BWST. The health and safety of the public were not compromised.  
(ES - Engineered Safeguard)

Corrective Action: When it was determined that 1HP-25 could not be fully opened from the Control Room, Operations opened the valve by hand to its ES position. During the next attempt to cycle the valve, Instrumentation and Electrical (I&E) personnel monitored the current to the valve operator. The torque switch setting was increased from 1 to 2. Valve operators for valves HP-24, HP-25, LP-17, LP-18, LP-21, and LP-22 will be replaced with environmentally qualified valve operators during the next refueling outage on each unit. Because of the problems Duke and other utilities have had with these type valve operators and because some of the original design criteria may be inappropriate, design criteria will be recalculated prior to manufacturing the environmentally qualified valve operators. Dominion Engineering has been contracted to act as Duke's consultant on the valve operator design calculations. The surveillance frequency on 1HP-25 will be increased to monthly until there are two consecutive monthly tests in which valve performance is satisfactory. At this time, general corrective action for 1, 2, 3HP-24 and 1, 2, 3HP-25 is being formulated, and will be documented in RO-270/83-03, due to the NRC April 14, 1983.