

DUKE POWER COMPANY

POWER BUILDING

422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

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ATLANTA, GEORGIA
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WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

August 20, 1981

TELEPHONE AREA 704
373-4083

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



Re: Catawba Nuclear Station
Units 1 & 2
Docket Nos. 50-413 & -414

Dear Mr. O'Reilly:

Pursuant to 10 CFR 50.55e, please find attached Significant Deficiency Report IE-78/02-SPS-413/414 (Final Report).

Very truly yours,

William O. Parker, Jr.

William O. Parker, Jr.

ROS/php
Attachment

cc: Director
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Resident Inspector
Nuclear Regulatory Commission
Catawba Nuclear Station

IE27
S/11

REPORT NO: IE-78/02-SPS-413/414

Dated September 19, 1978

PROGRESS REPORT DATE: July 29, 1981

FACILITY: Catawba Nuclear Station, Units 1 & 2

IDENTIFICATION OF DEFICIENCY:

Safety Related Containment Isolation Valve Type C Leakage Deficiency

INITIAL REPORT:

An initial formal written report (IE-78/02-SPS-413/414 dated September 19, 1978) was provided to the NRC on this deficiency.

DESCRIPTION OF DEFICIENCY:

During preliminary seat leakage air testing of hard seat containment isolation valves, actual valve seat air leakage exceeded Type C containment isolation valve leakage criteria. Low air pressure valve seat leakage testing similar to containment Type C leakage testing was not a requirement of applicable Duke valve procurement specifications.

ANALYSIS OF SAFETY IMPLICATIONS:

Had this deficiency not been identified and requirements of 10CFR50 Appendix J imposed, overall containment isolation leakage allowables would have been exceeded.

CORRECTIVE ACTION:

Duke document DCA-MEQP-0004 identifies all affected valves and corrective action/modifications required to be done by Catawba Construction Department. Design Engineering corrective action is complete. Modifications made were: (1) For some of the affected gate valves, a seal water system (System NW) was added. The purpose of the seal water system is to eliminate air leakage through the gate valve by sealing valve body with water at higher pressure than containment accident pressure. (2) For other affected containment isolation valves, the valves were either modified or replaced to obtain valves with elastomeric seating materials. The effect of replacing metal valve seats by elastomeric seats results in reduction of seat leakage to acceptable limits. Acceptable seat leakage tests were performed by the manufacturers of replacement valves and by manufacturers of valves modified by manufacturer. All replacement valves and valve parts have been delivered to the site.

Duke will perform seat leakage tests on valves modified at the site. Valve modifications and seat leakage tests will be completed before final Type C containment isolation valve leakage tests.