

## DUKE POWER COMPANY

POWER BUILDING

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

31 MAY 11 AM '81

WILLIAM O. PARKER, JR.  
VICE PRESIDENT  
STEAM PRODUCTION

TELEPHONE: AREA 704  
373-4083

81-005-032

May 8, 1981

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

Re: McGuire Nuclear Station  
Units 1 and 2  
Docket No. 50-370



Dear Mr. O'Reilly:

Pursuant to 10CFR 50.55e please find attached Significant Deficiency Report  
SD 370/81-02

Very truly yours,

*William O. Parker, Jr.*  
William O. Parker, Jr.

RWO:pw  
Attachment

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

M. J. Graham  
Resident Inspector  
McGuire Nuclear Station

IE27  
5/11

## McGUIRE NUCLEAR STATION

Report Number: SD-370/81-02

Report Date: May 1, 1981

Facility: McGuire Nuclear Station, Unit 2, Duke Power Company

Identification of Deficiency: Containment Purge System ductwork inside containment does not comply with thickness criteria set forth in the McGuire FSAR. This deficiency was identified by Duke Power personnel on March 30, 1981.

Initial Report: On April 8, 1981, Mr. Art Johnson of the Region II office was notified of the deficiency by H. A. Smith, J. L. Richardson and W. O. Henry of Duke Power Company, Charlotte, North Carolina.

Description of Deficiency: In response to FSAR Question 42.63, Duke Power Company stated that certain sections of containment purge system ductwork would be fabricated from 10 gauge material. These heavy-wall sections were to prevent containment isolation valve closure failure in the event of a design basis LOCA while purging operation was in process.

It was verified that the design documents required minimum 16 gauge, and that the actual installation was of 16 gauge. The discrepancy was documented within Duke Power Company as a nonconformance with the FSAR commitment.

Analyses were performed to determine the adequacy of the actual installation under conditions of a design basis LOCA concurrent with purge system operation. The situation is being evaluated for applicability to other Duke units.

Analysis of Safety Implication: The purpose of the heavy wall duct sections is to preclude purge system duct damage during LOCA from interfering with the associated containment isolation valve's ability to close. With these conditions present, duct failure and subsequent valve closure failure could have resulted in a greater release of radioactivity. Since the system operation is limited by Technical Specifications to 90 hours per year when the unit is above cold Shutdown, the probability of a simultaneous design basis LOCA and purge system operation is exceedingly small.

Corrective Action: Design documents have been updated to incorporate the requirement for 10 gauge ductwork. The actual installation will be corrected prior to system turnover to the operating personnel (scheduled for August 1, 1981). Follow-up activities pertaining to other Duke Power Company units will continue.