DUKE POWER COMPANY
POWER BUILDING
422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

TELEPHONE: AREA 704
373-4083

November 23, 1981

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
Unit 1
Docket No. 50-413

Dear Mr. O'Reilly:

Pursuant to 10 CFR 50.55e, please find attached Significant Deficiency Report SD 413/81-26.

Very truly yours,

William O. Parker, Jr.

RWO/php
Attachment

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

Resident Inspector-NRC
Catawba Nuclear Station

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CATAWBA NUCLEAR STATION

REPORT NUMBER: SD 413/81-26

REPORT DATE: November 23, 1981

FACILITY: Catawba Unit 1

IDENTIFICATION OF PROBLEM: Failure to remove welding purge dams from 24" FW supply header.

DESCRIPTION OF DEFICIENCY:

On 11/3/81 W. O. Henry, C. A. Bell, and R. L. Misenheimer advised A. Ignatonis of the NRC of the following deficiency in Construction. During weld repairs on the 24" FW supply header, following flush and most hydro work, the header was entered to remove a dirt film and grit from the inside of the pipe. During this cleaning of the header, two plywood/red rubber purge dams were found within 15 feet of the inlet from the refueling water storage tank. These dams were constructed of 3/4" plywood, 1/4" plywood, and 1/8" red gasket rubber sandwiched in the center and extending 1/2" past the wood circumference. These dams were previously used to contain an argon purge gas during welding of the header. One dam was found loosely in place about 5 feet into the header while the second dam was wedged tightly about 15 feet into the header. Both dams were removed while the header was drained for weld repairs.

ANALYSIS OF SAFETY IMPLICATIONS:

The 24" FW supply header serves as the initial source of water for the emergency core cooling system (ECCS). The presence of these dams would probably have been detected during subsequent preoperational testing; however, there is no analytical engineering method to prove the dams would not have restricted flow to the ECCS pumps had they not been detected. Consequently, a flow reduction or blockage must be assumed which could have caused a reduction or loss of ECCS capability. Loss of ECCS capability would adversely affect the safety of operation as defined under 10CFR50.55(e).

CORRECTIVE ACTION:

No further Engineering evaluation or resolution is required since the dams have been removed from the inside of the piping. Construction and QA have reviewed the applicable Construction and inspection procedures and have determined them to be adequate. Actions to minimize the potential of future occurrences are that appropriate personnel will be instructed in the process controls necessary to assure removal of purge dams. Process controls are deemed adequate to minimize the potential of future occurrences due to the small number of this type of purge dam used in the construction process. The normal purge dam used in smaller diameter piping is of the water soluble type. This deficiency applies only to Catawba Unit 1 and does not apply to Unit 2 or other Duke Nuclear Stations.