



June 18, 1979

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

Serial No. 491  
PSE&C/MGD/CGC:mac:wang

Docket No. 50-339

Dear Mr. O'Reilly:

On June 13, 1979, a report was made under the provisions of 10CFR50.55(e) concerning incorrectly sized orifices in the piping of the recirculation spray system of North Anna Power Station Unit 2.

In accordance with the reporting requirements of 10CFR21, the following information is submitted:

A. Name and address of reporting individual:

Mr. E. A. Baum, Executive Manager  
Licensing & Quality Assurance  
Virginia Electric and Power Company  
P. O. Box 26666  
Richmond, Virginia 23261

B. Facility, activity and/or component affected:

North Anna Power Station, Unit 2  
Recirculation Spray System

C. Name of firm constructing the facility or supplying the component, activity or service:

Stone & Webster Engineering Corporation  
P. O. Box 2325  
Boston, Massachusetts 02107

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D. Description of defect, deficiency, or failure to comply:

In May 1975, Engineering & Design Coordination Report (E&DCR) P-689 required restriction orifices to be placed in the discharge piping of the Unit 1 and Unit 2 Outside Recirculation Spray Pumps. This flow restriction was needed to limit the net positive suction head (NPSH) required by these pumps.

Later safeguards analysis indicated a reduction in NPSH available to the pumps, so casing cooling modifications were developed to provide adequate NPSH. An interim modification was made to Unit 1, which included resizing the restriction orifices required by E&DCR P-688. E&DCR P-2068 changed the bore diameter of the Unit 1 orifices for the

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interim modification, and E&DCR P-2068A revised the orifice diameter based on subsequent information. E&DCR P-2068A stated the restriction orifices should be removed for the permanent casing cooling modification, and E&DCR P-2068B was generated to require the restricting orifices be bored to full pipe diameter after the permanent modification was completed in Unit 1.

Since Unit 2 did not require the interim modification, E&DCR's P-2068, P-2068A, and P-2068B were written for Unit 1 only. The Casing Cooling System E&DCR review included a review of the E&DCR P-2068 series; however, the information generated in the P-2068 series did not address Unit 2 and was therefore considered not to affect Unit 2.

E&DCR P-688, as it was written in May 1975, was covered by the site E&DCR review. As this E&DCR was prepared for both Unit 1 and Unit 2, it satisfied the requirements of the review and was determined to be acceptable. Since there was no reference to P-688 on the E&DCR P-2068 series, the fact that the restriction orifices required by P-688 were not bored to full pipe diameter, as required by P-2068B, was not recognized, and a separate E&DCR to increase the Unit 2 orifice to full bore was not issued. This is considered to be an isolated incident and not a breakdown in the E&DCR program.

E. Date of determination of reportability:

June 13, 1979

F. Similar components, activities, or services:

None

G. Corrective action which has been, is being or will be taken, and individual responsible and the length of time to complete the action:

The restriction orifices installed in the Unit 2 piping have been replaced by an orifice bored to full pipe diameter.

H. Other information:

None

Since no other actions will be required to correct the problem described in section D of this report, we consider this to be the final report under the provisions of 10CFR50.55(e)(3).

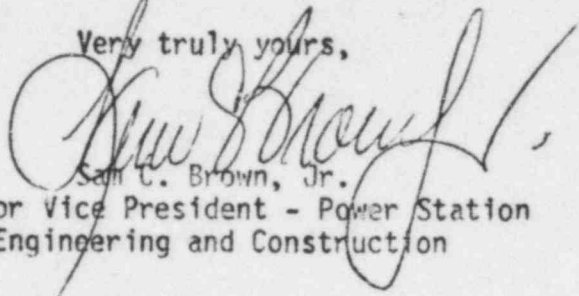
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Mr. James P. O'Reilly, Director

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Should you require further information, please contact this office.

Very truly yours,



Sam C. Brown, Jr.  
Senior Vice President - Power Station  
Engineering and Construction

✓ cc: Director, Office of Inspection  
and Enforcement (3)

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