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BOSTON  
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April 18, 1983

Director  
Office of Inspection and Enforcement  
U. S. Nuclear Regulatory Commission  
Washington, DC 20555

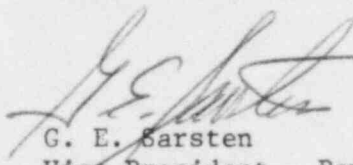
Dear Sir:

Subject: 10CFR21 Report of a Defect Related to Public Service  
Company of New Hampshire - Seabrook Station - Units 1 & 2

This is to inform you of a defect which has come to my attention related to the adequacy of the Service Water and Circulating Water Pump House structure for the Seabrook station. While this defect will be reported by the Public Service Company of New Hampshire in accordance with 10CFR50.55(e), we are providing this 10CFR21 report to assure that the Commission has been adequately informed.

Details of our report are attached.

Very truly yours,

  
G. E. Sarsten  
Vice President - Power

Attachment

copy: Regional Director  
USNRC - Region 1

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NAME AND ADDRESS OF THE INDIVIDUAL OR INDIVIDUALS INFORMING THE COMMISSION.

G. E. Sarsten, Vice President - Power  
United Engineers & Constructors Inc.  
30 South 17th Street  
Philadelphia, Pa. 19101

IDENTIFICATION OF THE FACILITY, THE ACTIVITY, OR THE BASIC COMPONENT SUPPLIED FOR SUCH FACILITY OR SUCH ACTIVITY WITHIN THE UNITED STATES WHICH FAILS TO COMPLY OR CONTAINS A DEFECT.

Public Service Company of New Hampshire, Seabrook Station. Design of the Service Water and Circulating Water Pump House station.

IDENTIFICATION OF THE FIRM CONSTRUCTING THE FACILITY OR SUPPLYING THE BASIC COMPONENT WHICH FAILS TO COMPLY OR CONTAINS A DEFECT.

United Engineers & Constructors Inc.

NATURE OF THE DEFECT OR FAILURE TO COMPLY AND THE SAFETY HAZARD WHICH IS CREATED OR COULD BE CREATED BY SUCH DEFECT OR FAILURE TO COMPLY.

A "defect" exists in the structural design of the concrete walls separating pump cells in the Category I Service Water and Circulating Water Pump House. This "defect" is due to the fact that these concrete walls were not designed to withstand forces associated with differences in water levels in adjacent cells when one of these cells is dewatered for maintenance (access to the travelling screens and pumps).

The forces associated with differences in water levels of adjacent cells when one cell is dewatered for maintenance would cause overstress in the lower portions of the concrete walls. This overstress will exist whenever the differential water pressure head surpasses 35 feet. During a surge caused by the trip of the circulating water pump, the differential water pressure head can reach 61 feet. The overstress caused by such pressure could cause the lower parts of the concrete walls (below elevation -12') to experience extensive cracking with the possibility of some spalling on both sides of these walls.

THE DATE ON WHICH THE INFORMATION OF SUCH DEFECT OR FAILURE TO COMPLY WAS OBTAINED.

April 18, 1983

IN THE CASE OF A BASIC COMPONENT WHICH CONTAINS A DEFECT OR FAILS TO COMPLY, THE NUMBER AND LOCATION OF ALL SUCH COMPONENTS IN USE AT, SUPPLIED FOR, OR BEING SUPPLIED FOR ONE OR MORE FACILITIES OR ACTIVITIES SUBJECT TO THE REGULATIONS IN THIS PART.

This defect applies only to the Seabrook Station, Units 1 and 2.

THE CORRECTIVE ACTION WHICH HAS BEEN, IS BEING, OR WILL BE TAKEN: THE NAME OF THE INDIVIDUAL OR ORGANIZATION RESPONSIBLE FOR THE ACTION: AND THE LENGTH OF TIME THAT HAS BEEN OR WILL BE TAKEN TO COMPLETE THE ACTION.

Modifications to the structure as required to strengthen the concrete walls will be made. United Engineers & Constructors Inc. will be responsible for these modifications. The design of the modifications will be completed by June 17, 1983.

ANY ADVICE RELATED TO THE DEFECT OR FAILURE TO COMPLY ABOUT THE FACILITY, ACTIVITY, OR BASIC COMPONENT THAT HAS BEEN, IS BEING, OR WILL BE GIVEN TO PURCHASERS OR LICENSEES.

Public Service Company of New Hampshire will be advised to report the defect under the provisions of 10CFR50.55(e).