Wisconsin Electric POWER COMPANY
231 W. MICHIGAN, P.O. BOX 2046, MILWAUKEE, WI 53201

November 10, 1981

Mr. H. R. Denton, Director
Office of Nuclear Reactor Regulation
U. S. NUCLEAR REGULATORY COMMISSION
Washington, D. C. 20555

Dear Mr. Denton:

DOCKET NO. 50-266
OVERPRESSURE MITIGATING SYSTEM
POINT BEACH NUCLEAR PLANT, UNIT 1

Attached is a special 30-day report which provides a description of an event reportable in accordance with Technical Specification 15.6.9.2.E, a condition where "the overpressure mitigating system is operated to relieve a pressure transient which, by licensee's evaluation, could have resulted in an overpressurization incident had the system not been operable".

Very truly yours,

C. W. Fay, Director
Nuclear Power Department

Attachment

Copy to NRC Resident Inspector

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OVERPRESSURE MITIGATING SYSTEM
ACTUATION OF PORV-431C

On October 10, 1981, the plant staff was performing testing procedure TS-10, "High and Low Head Safety Injection Check Valve Leakage Test", at the Point Beach Nuclear Plant, Unit 1. The plant conditions at the time were shut down and cooled down with the residual heat removal system in operation prior to the test. The overpressure mitigating system was also operational with primary system pressure at approximately 350 psig and system temperature at 105°F. At about 2:00 p.m., alarms for high system pressure (setpoint at 375 psig) and power-operated relief valve actuation were received. The operator noted that the green indicating light (indicating an intermediate valve position) was lighted during the momentary actuation of the power-operated relief valve. The strip chart recorder showed no change in coolant system pressure. Testing was suspended until the cause of the pressure transient was determined.

The initial conditions for TS-30 require a minimal letdown flow and recommend that letdown from the residual heat removal system be secured. Pressure is maintained with charging pumps in manual. These conditions were met when the test started. Midway through the test it was calculated that decay heat production was greater than the capacity of the "B" train heat exchanger and that the test could not be completed as written. It was determined that the test would be completed when the decay heat production rate had decreased. In the interim, letdown flow was maximized for purification and charging flow increased appropriately. Later, when the test was restarted, the letdown and charging flows were not reduced in accordance with the initial conditions, and consequently, when the "A" train of residual heat removal was isolated per the procedure, the majority of letdown flow was also isolated. With the charging pumps still in manual control, the pressure of the solid system rapidly increased causing momentary power-operated relief valve actuation. Residual heat removal was restored, letdown and charging flows adjusted, and the test completed without further incident.

A calibration check of the two power-operated relief valves conducted on October 8, 1981 indicated setpoint pressures of 411 and 414.5 psig. During the transient, it is believed that open signals went to both power-operated relief valves and that the slight opening of PORV-431C was sufficient to relieve the pressure transient before PORV-430 had moved far enough to operate its limit switch. This, and the fact that no pressure transient was detectable on the chart recorder, indicates that the pressure transient was relatively small. The overpressure mitigating system operated as designed and provided the necessary pressure relief to prevent approaching the pressure temperature limitations for the reactor coolant system at the temperature during the event.

Operators will be reinstructed in the importance of meeting and maintaining the conditions specified in a test procedure. It will be emphasized that in those cases where a test is interrupted, it is especially important that all precautions and initial conditions be reviewed to ensure that the plant status is appropriate for the test being performed. The test procedure will also be revised to evaluate the timing of the test to preclude need for suspension of the test due to the decay heat load.