Wisconsin Electric POWER COMPANY
231 WEST MICHIGAN, MILWAUKEE, WISCONSIN 53201

February 18, 1975

Mr. Edson G. Case, Deputy Director
Directorate of Licensing
U. S. Nuclear Regulatory Commission
Washington, D. C. 20545

Dear Mr. Case:

LICENSEE EVENT REPORT NO. 50-266/75-3
POINT BEACH NUCLEAR PLANT
FAILURE OF REDUNDANT TRIP MECHANISM ON MAIN STEAM STOP VALVE OPERATOR TO UNLATCH

This letter is to report the details of an abnormal occurrence at the Point Beach Nuclear Plant, Unit 1, Facility Operating License No. DPR-24, as defined by Section 15.1.a.D of the Technical Specifications. This written ten-day report, filed in accordance with Section 15.6.6.A.2 of the Technical Specifications, follows a telephoned notification of the event to Mr. Dwane Boyd, Region III, Directorate of Regulatory Operations, on February 9, 1975, per Section 15.6.A.1 of the Point Beach Nuclear Plant Technical Specifications.

On February 8, 1975, while conducting a non-Technical Specification test, PC-2, "Main Steam Isolation and Check Valve Test", the mechanical latching mechanism on the redundant solenoid trip vent valve 2018C on the Unit 1 "A" main steam stop valve failed to unlatch when the solenoid was deenergized. The latch tripped following a second attempt.

To verify operation, the mechanism was relatched, but several attempts to unlatch it then failed. The two air supply and one air vent latching mechanisms operated satisfactorily when tested. All solenoid trip latches on the "B" main steam stop valve operated satisfactorily.

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Noting that the 2018C latching mechanism appeared to be restrained by friction to a greater extent than the other latches, the operator cleaned the surfaces of the roller and the block on which it rolled on the latch arm; then applied a thin coat of lubricating oil. Five successful trip tests of the latch followed this action. The operator then returned the mechanism to service, but filed a maintenance request asking for a further investigation of the problem.

A review of the test results by the Duty Shift Supervisor and Operations Superintendent on February 9, 1975, determined the failure of 2018C to trip to be a reportable event.

A similar problem to this experience was previously reported on Unit 2 at Point Beach in our letter to Mr. J. F. O'Leary of August 20, 1974. An increased testing of the latching mechanisms on that unit appeared to verify their reliability and a return to monthly tests was initiated following the unit's recent refueling shutdown.

Early in the operating life of Unit 1 at Point Beach Nuclear Plant, the mechanisms in question exhibited a tendency for excessive wear where the trip pin contacted the two thin metal plates which formed the trip lever. To increase the wearing surface, a metal block was placed between the two plates and, in addition, the solid pin was replaced by a roller to transform the rubbing action between the two faces to a rolling, essentially frictionless action. The modified latches were fitted to Unit 1 main steam stop valves on August 4, 1973, and to Unit 2 on July 4, 1974.

An investigation by Maintenance personnel on February 17, 1975, disclosed that the rollers were not rotating as freely as designed. Upon disassembly of the mechanisms, it was noted that the center pin on which the roller is located was screwed into one of the latching arms per its early design. The newer design called for the screw threads to be removed from the latching arm; the pin then being free to rotate. The threads were removed and, following reassembly, the mechanism was retested satisfactorily.

The eight Unit 1 solenoid valve trip mechanisms have been corrected in the above manner. The Unit 2 mechanisms will be inspected for a possible similar problem and will be corrected as necessary as soon as practicable.

Since the redundant valves operated correctly, there is no reason to believe that upon an actual trip signal, the main steam stop valves would not have closed. In addition, it is known that steam flow in excess of full power values is capable of

"wiping in" the main steam stop valves without an initiating closing signal. This provides an added degree of redundancy in the unlikely event of a main steam line break. Therefore, it is considered that this event posed no hazard to the health and safety of the public.

Very truly yours,

Executive Vice President

Sol Burstein