



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



April 17, 1974

Mr. John F. O'Leary, Director
Directorate of Licensing
U. S. Atomic Energy Commission
Washington, D. C. 20545

Dear Mr. O'Leary:

DOCKET NOS. (50-266 AND 50-301
POINT BEACH NUCLEAR PLANT
AUXILIARY FEED PUMP SUCTION STRAINERS

This letter is to report the details of an abnormal occurrence at Point Beach Nuclear Plant, Facility Operating License Nos. DPR-24 and DPR-27, as defined by Sections 15.1.a.B and 15.1.a.D of the Technical Specifications. This written report is submitted in accordance with Section 15.6.6.A.2 of the Technical Specifications and follows a telephone report on the incident to Mr. Ed. Jordan of Region III, Directorate of Regulatory Operations, on April 8, 1974, as required by Section 15.6.6.A.1 of the Technical Specifications.

At approximately 11:30 P.M. on April 7, 1974, Unit 1 at Point Beach was in the final stages of cooldown in preparation for its second refueling. While running the "A" motor-driven auxiliary feed pump to maintain steam generator water levels following shrinkage, the operator noted that the pump was not delivering feedwater at an adequate flow rate.

An immediate investigation of the pump led to the discovery of an in-line conical strainer fitted at a flanged portion in the pump suction piping. The strainer was removed and the pump placed back in service at approximately 12:00 P.M. the same date.

An investigation of the suction piping of the "B" motor-driven auxiliary feed pump and the Unit 1 and Unit 2 steam-driven auxiliary feed pumps disclosed similar in-line strainers. All were removed.

A visual inspection of the four strainers showed that the two removed from the motor-driven pumps were approximately 95% plugged. The two removed from the steam-driven pumps, while

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dirty, exhibited a full mesh pattern throughout the whole of the strainer area. We believe these latter strainers would not have reduced the flow rate to the suction side of the steam-driven pumps significantly.

Three separate means of injecting feedwater into the steam generators are available at Point Beach Nuclear Plant:

1. Each unit is equipped with two main feed pumps, each rated at 7800 gpm at 935 psig and driven by 4160 kv motors normally supplied off the main generator unit transformer. Power to these motors is also supplied from either the 345 kv switchyard or the on-site gas turbine generator. Each pump is capable of supplying approximately 60% of that unit's total requirements of feedwater.
2. Two motor-driven auxiliary feed pumps capable of delivering a total of 400 gpm of feedwater can feed to either unit. These pumps, while normally supplied from the plant's 480 v buses are capable of receiving their electrical supply from the plant's emergency diesel generators.
3. Two steam-driven auxiliary feed pumps, one per unit, each have a capacity of 400 gpm. Steam supply to the turbine drives of these pumps may be taken from both or either of that unit's steam generators.

The prime purpose of the auxiliary feedwater system described in (2) and (3) is to maintain a satisfactory water inventory for removal of heat energy from the reactor coolant system by secondary side steam release should a reactor trip coincide with a total loss of both main feed pumps.

In reviewing the safety analysis for loss of normal feedwater supply (See Volume 4, Section 14.1.11 of the Point Beach Nuclear Plant Final Facility Description and Safety Analysis Report), the worst case is presumed to be that only one motor-driven pump (200 gpm) is available and capable of pumping feedwater into one steam generator only. In the period February 3,

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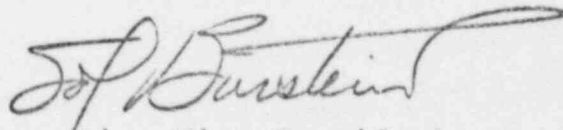
1974 (Unit 1 reactor tripped on that date and the motor-operated auxiliary feed pumps performed satisfactorily) until April 7, 1974, both main feed pumps have operated satisfactorily and the steam-driven auxiliary feed pumps have been fully available to perform their intended feedwater makeup function.

Examination of the conical strainers has shown them to be of a type commonly installed in piping systems at the conclusion of construction and normally removed after a system has experienced a measure of initial operation. No record apparently exists with respect to the installation of such filters on the suction lines to the auxiliary feed pumps. None of these strainers was provided with an external "tell-tale" or flag. Such devices are included as part of our usual construction and startup practice to provide visual evidence of temporary strainer installation.

The four auxiliary feed pumps are each tested on a monthly basis; however, the test is run essentially at "shutoff head", the only flow being through a one inch diameter minimum flow bypass line. Sufficient flow was passed by the nearly plugged suction strainers of the motor-driven auxiliary feed pumps during these tests to mask the strainers' existence and their condition.

To prevent a recurrence of this problem in the auxiliary feed system or other safeguards systems in the plant, a careful visual survey is being conducted of these systems primarily by those persons responsible for and familiar with surveillance of such systems during plant construction and initial startup. No additional strainers have been found to date. While it is not expected that the surveillance effort will disclose any further strainers, we will consider any such findings to merit an additional report.

Very truly yours,



Sol Burstein

Executive Vice President

cc: Mr. James G. Keppler, Regional Director
Directorate of Regulatory Operations, Region III