



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



July 16, 1973

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
UNSCHEDULED RELEASE OF RADIOACTIVITY AND
VIOLATION OF A LIMITING CONDITION FOR OPERATION

This is to report the details of an abnormal occurrence at Point Beach Nuclear Plant as defined by Sections 15.1.a.B and 15.1.a.C of the Technical Specifications. This written report is in accordance with Section 15.6.6.A.2 of the Technical Specifications and follows a telephone report made on the incident to Mr. K. Baker of Region III Regulatory Operations on July 8, 1973, as required by Section 15.6.6.A.1 of the Technical Specifications.

At 0415 hours on July 8, 1973, a high level alarm on the Unit 1 facade sump was received in the main control room. It was assumed at that time that the alarm was the result of normal ground-water drain accumulation and an operator was dispatched to pump the sump to the retention pond via the sewage plant sump.

Approximately five minutes after a facade sump pump was started, the control room operator noted that the high level alarm had not yet cleared and contacted the auxiliary operator for an explanation. It was found that the sump pump was incapable of emptying the sump because of a small but steady flow into the sump from an unknown source.

Two possibly related plant operations were in progress at that time. The water treatment plant was making up water to the "B" reactor makeup water tank and the Unit 1 refueling water storage tank had recently been placed in the recirculating mode in preparation for the taking of a weekly sample. An investigation of these two operations quickly determined that the Unit 2 refueling water storage tank level was down to 92% (267,000 gallons) and the Unit 1 refueling water storage tank indicated 100%. The Unit 1 refueling water storage tank was found to be overflowing. The recirculating of the tank was immediately terminated and the facade sump pump was stopped.

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Retransfer of borated water from the Unit 1 refueling water storage tank to the Unit 2 refueling water storage tank was instigated. The Duty Shift Supervisor and Duty and Call Superintendent conferred on the desirability of shutting down the Unit 2 reactor during this period when its refueling water storage tank was temporarily below its Technical Specifications requirement of 275,000 (95% tank level), but determined that the problem would be corrected before an orderly shutdown of the unit could be accomplished. The Technical Specification quantity of 275,000 gallons was re-established by 0640 hours.

The quantity of water pumped to the retention pond from the Unit 1 facade sump was later estimated to be 250 gallons. An analysis showed the radioactivity concentration of this water, before dilution, to be 5.33×10^{-3} $\mu\text{c/ml}$ for a total discharge of 5043.8 μc . Following dilution with an estimated 18,000 gallons of water in the sewage plant sump, the calculated activity was 7.4×10^{-5} $\mu\text{c/ml}$, which is approximately 8% of the permitted MPC for discharges to a restricted area.

An isotopic analysis taken from samples drawn at the discharge to the retention pond produced the following table:

Isotope	Concentration Before Dilution $\mu\text{c/ml}$	Total Activity %	Concentration in Retention Pond After Dilution $\mu\text{c/ml}$	%MPC For Restricted Area In Retention Pond
^{144}Ce	1.02×10^{-4}	1.912	1.417×10^{-6}	0.472
^{137}Cs	4.68×10^{-5}	0.867	6.500×10^{-7}	0.163
^{134}Cs	8.49×10^{-5}	1.599	1.179×10^{-6}	0.393
^{60}Co	4.99×10^{-3}	93.629	6.930×10^{-5}	6.930
^{58}Co	3.27×10^{-5}	0.619	4.540×10^{-7}	0.0135
^{54}Mn	7.50×10^{-6}	0.019	1.040×10^{-7}	0.0260
^{95}Zr	2.16×10^{-5}	0.419	3.000×10^{-7}	0.0150
^{95}Nb	4.01×10^{-5}	0.756	5.570×10^{-7}	0.0186
^{103}Ru	2.52×10^{-7}	0.005	3.500×10^{-9}	0.0017
TOTALS	5.33×10^{-3}	99.825	7.396×10^{-5}	8.0328
^3H	4.34×10^{-3}	100.000	6.028×10^{-5}	0.0603

Initial samples taken at the discharge of the retention pond produced non-detectable levels.

It is concluded that the unscheduled discharge from the Unit 1 facade sump to the retention pond and thence to the retention pond discharge are well below unrestricted area MPC limits. To further substantiate this statement, further samples will be taken at the discharge of the pond at 15 and 30 days (30 days being the pond's calculated holdup time). Should these produce levels of any significance, we will inform you promptly of the levels measured.

The 3% deficiency in level in the Unit 2 refueling water storage tank is approximately equal to 8,000 gallons. Calculations show that at the Technical Specification value of 275,000 gallons at 2,000 ppm boron, 4,580 pounds of boron are contained in the refueling water storage tank. The concentration of boron following the level reduction to 92% was 2,254 ppm boron; 267,000 gallons of 2,254 ppm borated water contains approximately 5,000 pounds of boron. Accordingly, the ability of the refueling water storage tank to borate the reactor coolant system to a completely shutdown condition was not compromised. In addition, had the safety injection pumps been called upon to take their full flow suction from the refueling water storage tank, the blender system would have been capable of making up the 8,000 gallon deficit before the low-low level setpoint of the refueling water storage tank was reached.

To prevent a recurrence of this incident, the following actions have been taken:

The operating procedure dealing with liquid transfers will be rewritten and expanded.

The Unit 1 facade sump pump has been lined up to the waste holdup tank. The pump will normally be left in the "off" position. Thus, a discharge to the retention pond will require a conscious effort to change a valve lineup and start a pump manually. The Unit 2 facade pump will also be normally left in the "off" position. As soon as modification to further reduce local ground-water entering the Unit 2 facade is completed, this sump will also be lined up to the waste holdup tank as a normal lineup.

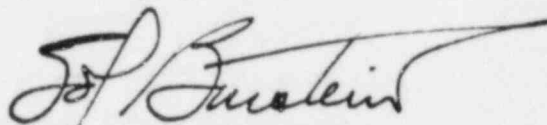
Mr. John F. O'Leary

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Finally, disciplinary action for those personnel who caused the incidents has been taken.

Very truly yours,

A handwritten signature in dark ink, appearing to read "Sol Burstein", with a long horizontal flourish extending to the right.

Senior Vice President

Sol Burstein

cc: Mr. Boyce H. Grier, Regional Director
Directorate of Regulatory Operations, Region III