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

January 28, 1975

Mr. Edson G. Case, Acting Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. Case:

DOCKET NO. 50-266
LICENSEE EVENT REPORT NO. 75-1
LOW LEVEL LIQUID WASTE DISCHARGE
WITHOUT CONTINUOUS MONITORING
POINT BEACH NUCLEAR PLANT, UNIT NO. 1

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.B, and more specifically by Section 15.3.9.A.3.b of the Technical Specifications. This written report, filed in accordance with Section 15.6.6.A.2 of the Technical Specifications, follows a verbal notification of the event to Mr. Dwane Boyd, Region III, Directorate of Regulatory Operations on January 21, 1975, per Section Section 15.6.A.1 of the Point Beach Nuclear Plant Technical Specifications.

Unit 1 at Point Beach was taken off the line and cooled down on January 14, 1975, for the purpose of sludge lancing of the secondary side of the "A" and "B" steam generators. The purpose of the sludge lancing was to improve the water chemistry conditions necessary for a more successful transfer to all volatile chemical water treatment from the previous sodium phosphate treatment.

From previous experience of sludge lancing Units 1 and 2, it was known that the process would generate approximately 40,000 to 45,000 gallons of low level radioactive waste liquid. The normal practice in the past was to temporarily hold this liquid following draining from the steam generator in a 9,000 gallon tank. After radiological sampling of the tank the liquid was discharged to the lake via the 30 day holdup sewage retention pond.

At approximately 6:00 P.M., January 20, 1975, the first of four tanks of sludge lancing waste was sampled. Iodine levels were found to be approximately nine times MPC; the probable cause of the higher than normal readings being known fuel cladding leaks in the unit plus a small (less than five gallons per day) primary-to-secondary leak in the "A" steam generator.

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The activity level of the sludge lancing waste in conjunction with the volume involved was recognized as being above that permitted to be discharged to the sewage retention pond. However, it was also known that the limited capacity of the plant's waste holdup tank, 21,000 gallons, would not permit the holding of this effluent for eventual waste treatment processing.

To resolve these difficulties, the Duty Shift Supervisor conferred with the evening shift Chemistry Supervisor, who in turn, contacted the Radiochemical Engineer and the Manager; at which time the Manager advised that the full liquid waste tank be routed to the waste holdup tank and a second filling of the settling tank be made and checked for possible discharge to the retention pond. A short time later in another conversation between the Radiochemical Engineer and the Duty Shift Supervisor, it was suggested that the liquid be diluted with service water and routed via the service water overboard and circulating water systems to the lake (an unrestricted area) as is normal for low level radioactive liquid waste. The Radiochemical Engineer approved the discharge via this route. It was not recognized at this time that the route chosen for this release did not contain means of continuously monitoring the gross activity of the discharge as required by Section 15.3.9.A.3.b of the Technical Specifications.

The Iodine-131 concentration of the initial release of 9,000 gallons before dilution was 2.74×10^{-6} µCi/ml, with a total radioactivity concentration of 4.95×10^{-6} µCi/ml. The diluted liquid waste was discharged under four radioactive discharge permits (Nos. 75-14, 75-15, 75-17, and 75-18 - total gallons being 40,000 with a dilution factor of 4,368) and was sampled four times during discharge. Total isotopic concentration of the final 15,000 gallons was 5.23×10^{-7} µCi/ml before dilution. Total activity released during the discharge, which lasted approximately 16 hours, was 295.5 µCi.

A Manager's Supervisory Staff meeting was called on January 21, 1975, to determine if the release, which was in progress at that time, constituted a reportable event. The Staff's evaluation of the incident resulted in the following conclusions:

1. The Iodine-131 concentration (after dilution) discharged in the first release of 9,000 gallons was 6.27×10^{-10} µCi/ml; well below the 10 CFR 20 limit of 3×10^{-7} µCi/ml for liquid waste discharges to an unrestricted area. Iodine concentration decreased during the releases such that it was not detectable by analysis when the fourth and final sample was taken. Therefore, the radioactive levels of the discharge did not violate NRC regulations or cause a hazard to the health and safety of the public.

2. A Limiting Condition for Operation, Technical Specification 15.3.9.A.3.b was violated in that continuous in-line monitoring was not provided during the liquid waste release to the unrestricted area; only intermittent sampling being performed.

After determination that the incident was, in fact, a reportable event, the Manager directed the Operations Superintendent to immediately cease discharging the liquid waste to the lake and to divert the remaining sludge lancing liquid waste to the retention pond via the facade sump. This was promptly accomplished.

To prevent a recurrence of this event a copy of this report will be routed to plant staff members emphasizing the provisions of Section 15.3.9.A.3.b of the Technical Specifications with respect to the continuous monitoring requirements of radioactive liquid waste discharges.

Very truly yours,

John G. Quale

President