



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



August 30, 1974

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

Dear Mr. Case:

DOCKET NOS. 50-266 AND 50-301
POINT BEACH NUCLEAR PLANT
UNSCHEDULED RADIOACTIVITY RELEASE FROM BLOWDOWN EVAPORATOR

This letter is to report the details of an abnormal occurrence at the Point Beach Nuclear Plant, Units 1 and 2, Facility Operating License Nos. DPR-24 and DPR-27, as defined by Section 15.1.a.C of the Technical Specifications. This written report, filed in accordance with Section 15.6.6.A.2 of the Technical Specifications, follows an oral report on the subject to Mr. Dwane Boyd of Region III Regulatory Operations on August 21, 1974, per Section 15.6.A.1 of the Point Beach Nuclear Plant Technical Specifications.

At 2:30 A.M. on August 21, 1974, the radioactive waste system 35 gpm blowdown evaporator was shut down following a period of normal operation. The control valve supplying steam to the evaporator was closed remotely from the evaporator control panel. Shortly thereafter, when normal cooldown temperatures and pressures were observed for the evaporator, the service water cooling supply to the evaporator was also secured. In later reviewing this series of events, the operator came to the conclusion that following the final shutdown of the evaporator he failed to reset all annunciator alarms on the control panel before leaving the area.

The operator then continued with other shift duties until approximately 3:30 A.M. when a recheck of the control panel indicated that above normal operating pressure and water level conditions existed in the evaporator. Cooling water was immediately returned to the unit and the evaporator was again cooled to its shutdown condition. The rise in the evaporator pressure and temperature was later traced to steam leaking at the unit's steam supply control valve. The inleakage was stopped by closing the upstream manual isolation valve at the control valve.

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A local inspection of the evaporator relief valves verified that both valves had lifted during the pressure transient. This was confirmed by an examination of evaporator temperature and pressure recording charts which showed a 50 psig pressure over a 30 minute period with five "spikes" indicating valve lifting.

Releases from the evaporator relief valves are unmonitored. However, under normal stable operation, such releases are expected to be extremely infrequent events and, indeed, none has been experienced to date. Radiation monitors capable of withstanding the thermal shock, high temperature and humidity associated with this type of service are not, to the best of our knowledge, available at this time.

To assess the magnitude of the radioactive release from the blowdown evaporator, a sample of the evaporator bottoms was taken, boiled off and its steam's isotopic concentrations analyzed. The following table indicates the results:

<u>Isotope</u>	<u>Concentration ($\mu\text{c}/\text{ml}$)</u>	<u>Quantity Released μCi</u>
H-3	5.04×10^{-2}	899
I-131	7.39×10^{-5}	1.32
Xe-133	9.16×10^{-4}	16.3

The mass of steam released was based upon five liftings of the relief valve. Each lifting operation reduced the evaporator pressure from the 50 psig blowoff pressure to the valve's reseating pressure of 43 psig for a total steam release of 39.25 pounds.

The analysis indicates that the radioactivity released as a result of this occurrence is negligible and does not constitute an exposure at the site boundary. We believe there was no significant risk to the health and safety of the public occasioned by this event.

To prevent a recurrence of this event, the following measures have been taken:

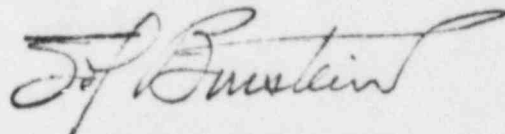
1. A modification request has been issued to install a high temperature alarm which will annunciate in the event a

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blowdown evaporator relief valve lifts and the temperature of the relief valve discharge piping is raised.

2. A modification request has been issued to install a high pressure alarm on the evaporator, which device also closes the steam supply valves to the unit.
3. The operating procedure for the evaporator is under review. A step will be included in the shutdown phase of operation to effect more positive steam isolation to the evaporator by means of a manual isolation valve rather than the control valve.
4. The Operations Superintendent has reviewed with all his personnel the necessity of resetting all annunciator alarms on the evaporator panel following shutdown or similar operations.

Very truly yours,



Sol Burstein

Executive Vice President

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