



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



February 6, 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
UNSCHEDULED RELEASE OF RADIOACTIVITY
POINT BEACH NUCLEAR PLANT

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.C and 15.1.a.G 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 January 29, 1974, as required by Section 15.6.6.A.1 of the Technical Specifications.

At approximately 2200 hours on January 25, 1974, R-14 the auxiliary building stack monitor, alarmed indicating release of radioactivity (alarm setpoint - 6,000 counts per minute). An investigation was initiated immediately. An operation to pump the spent fuel pit transfer canal to the "B" holdup tank was in progress at that time. The rising level of liquid in the holdup tank raised the normal 2 psig gas pressure in the bank to approximately 5 psig. This temporarily higher pressure extended to the suction of the waste gas compressor; the running compressor taking this gas and pumping it to the gas decay tanks. The volume control tank area (an area of a previous gas leakage problem) was investigated first. This investigation took several shift periods with no success in finding leakage. The CVCS holdup tanks were examined closely for any physical signs of leakage as well as the waste gas compressors and their associated piping.

Since no signs of leakage were found, the holdup tank's relief valves were suspect for leakage. These valves are hard-piped and therefore not capable of being visually checked. With this possibility in mind, the removal of excess pressure in the CVCS holdup tanks was continued in order to remove what was believed to be a probable source of auxiliary building leakage.

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This did not decrease the radiation levels and the detailed search continued. On January 29, 1974, an investigation of the waste gas cryogenic cubicle was initiated when two men received surface contamination of their clothing in that area. The cryogenic unit is located within the radiation controlled area of the plant but this equipment has not yet completed its functional test program and has not been operated using radioactive gases to date. Therefore, personnel contamination in this area was an unexpected occurrence. The source of the contamination was quickly found and isolated.

During the preoperational inspection of relief valve protection on the plant's new radwaste system on November 26, 1973, the State boiler inspector requested the immediate removal of two relief valves for examination. The examination disclosed that the two one-half inch relief valves did not comply with State code requirements and the inspector advised that the valves be replaced with approved relief valves before placing the new system into service. Under the pressure of the inspection and in view of the fact that this system had not yet been placed in service, holes left by the removed valves were not capped or isolated and the removal of the valves was not recorded as an "unusual plant condition", as required by Point Beach Administrative Procedure PBNP 4.17, "Lifted Wires, Jumpers and Bypasses". The relief line has since been cut and capped with a Swagelok fitting and has been red tagged to prevent removal of the cap until such time as this system is ready for operational service.

The relief valves in question vent the cryogenic compressors to the suction of the waste gas compressors via valve 2-980A, a normally locked open valve. Removal of the valves provided a path for gas to flow in the opposite direction, i.e., gas compressor suction to cryogenic unit; then to atmosphere in the cryogenic cubicle.

The length of piping through which the path of the release ran is approximately 240 feet of 3/4 inch pipe, with another 145 feet of 5/8 inch stainless steel tubing. It is believed that the length of this path and the normally low pressure in the CVCS holdup tanks kept the release to an undetectable minimum during normal operation. The cause of the detectable release was the increased pressure attained in the holdup tanks and suction of the waste gas compressors during the pumping down of the fuel transfer canal.

Mr. John F. O'Leary

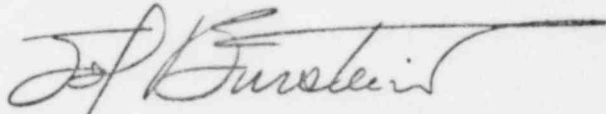
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The release was continuously monitored throughout by the auxiliary building stack monitor and the attached calculations show that the release was well below allowable limits as set by 10 CFR 20. Therefore, it is not considered that this occurrence posed a health or safety hazard to the public.

All involved personnel have been reminded of the importance of following existing operating and administrative procedures; this care to be extended to all plant equipment irrespective of its operational status.

Very truly yours,

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

Sol Burstein

Executive Vice President

Enclosure

RELEASE OF 1-25-74 TO 1-28-74

1. Total activity released - 171.6 Ci.

- a. Use a daily hourly average of 6049 cpm. which is equal to 2.2×10^{-5} $\mu\text{Ci/cc}$ concentration from the calibration curve for the auxiliary building stack monitor R14.
- b. Total period of release - 75 hours.
- c. Total flow during release period - 7.8×10^{12} cc.
- d. $\left(\frac{1}{1 \times 10^6 \mu\text{Ci/Ci}} \right) (2.2 \times 10^{-5} \mu\text{Ci/cc}) (7.8 \times 10^{12} \text{ cc}) = \underline{171.6 \text{ Ci}}$

2. Activity released by isotope based upon MPC for unrestricted areas:

<u>Isotope</u>	<u>Fraction of Total</u>	<u>Curies Released</u>	<u>MPC</u>	<u>Concentration at Site Boundary $\mu\text{Ci/cc}$</u>	<u>% MPC at Site Boundary</u>
Xr-88	.045	7.772	2×10^8	4.29×10^{-10}	2.2
Xr-85m	.032	5.491	1×10^{-6}	3.05×10^{-10}	0.3
Xe-135	.696	119.433	1×10^{-7}	6.635×10^{-9}	6.6
Xe-133	.227	38.953	3×10^{-7}	2.164×10^{-9}	0.7

3. Total activity released as Xe-133 equivalent - 529.555 Ci.

<u>Isotope</u>	<u>Equivalent</u>	<u>As Xe-133</u>
Xr-88	15	115.83 Ci
Xr-85m	3	16.473 Ci
Xe-135	3	358.299 Ci
Xe-133	1	38.953 Ci