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February 25, 1983

Mr. Ronald C. Haynes, Administrator
Region I
U.S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, PA 19406

Dear Mr. Haynes:

Subject: Oyster Creek Nuclear Generating Station
Docket No. 50-219
Licensee Event Report
Reportable Occurrence No. 50-219/83-01/03L

This letter forwards three copies of a Licensee Event Report (LER) to report Reportable Occurrence No. 50-219/83-01/03L in compliance with paragraph 6.9.2.b.2 of the Technical Specifications. We recognize that the time limitation specified in Technical Specification paragraph 6.9.2.b has been exceeded. The delay is attributed to extensive management review of this LER.

Very truly yours,

Peter B. Fiedler
Vice President and Director
Oyster Creek

PBF:jal
Enclosures

cc: Director (40 copies)
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Director (3)
Office of Management Information and
Program Control
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

NRC Resident Inspector
Oyster Creek Nuclear Generating Station
Forked River, NJ 08731

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OYSTER CREEK NUCLEAR GENERATING STATION
Forked River, New Jersey 08731

Licensee Event Report
Reportable Occurrence No. 50-219/83-01/03L

Report date

February 25, 1983

Occurrence date

January 23, 1983

Identification of Occurrence

A malfunction of the level instrumentation on a Chemical Waste Storage Tank (CWST) caused an unmonitored release of radioactive water at the northwest side of the New Radwaste (NRW) Building.

This event is considered to be a reportable occurrence as defined in the Technical Specifications, paragraph 6.9.2.b.4.

Conditions Prior to Occurrence

The plant was operating at steady state with the mode switch in the "Run" position.

Reactor power	955 MWt
Generator output	245 MWe

Description of Occurrence

At approximately 0000 hours on January 23, 1983, the floor drains for the plant and the regeneration headers were lined up to CWST "B" (WC-T-1B). Over the next eight hours the level in the tank increased from 23% to 53%. During the next fourteen hours the tank level reading remained at approximately 53% while additions to the tank inventory continued. During this fourteen hour period the operators failed to note the significance of the constant tank level reading. At 2215 hours some of the contents of CWST "A" (WC-T-1A) were transferred to CWST "B". The level in "A" was observed by the operator to decrease by 10% in ten minutes with no corresponding increase in "B" tank level; therefore, the transfer was terminated. At 2225 hours the supervisor went to the 23 foot level of the NRW building to investigate. The supervisor found water leaking from the piping penetrations in "B" and "C" vaults (Each CWST is housed inside interconnecting concrete vaults). At 2300 hours the contents of CWST "B" were partially transferred to CWST "A".

The unmonitored release occurred when water seeped from the vault to the ground outside through minor cracks in the walls of the NRW building.

Apparent Cause of Occurrence

The primary cause of the occurrence is attributed to two factors. First, foreign material was found in the air pressure regulator for the bubbler system level indication for CWST "B". This material caused partial plugging of the regulator which contributed to the false level indication. Second, on February 2, 1983, the threads on the bubbler system clean-out cap were found to be leaking air. This resulted in the tank level indication remaining at 26% for 8 hours while the tank level actually rose to 56%.

A secondary cause of the occurrence is attributed to the CWST vault floor drains system being plugged with debris. If the floor drain had not been plugged, the run time on the sump pump for the vault's floor drain system would have given indication that water was overflowing into the vault. In addition, the operators did not identify the false level indication until after the tank overflowed and contaminated water had seeped through the very minor cracks in the vault's three feet thick concrete wall.

Analysis of Occurrence

In addition to the air leak found at the bubbler system clean-out cap, which was due to galled pipe threads, false level indication on January 23, 1983 was caused by the partially plugged air pressure regulator. Both factors resulted in a decrease in air pressure and air flow in the bubbler system. The determination that both factors were contributory is based on: (1) After the regulator was blown down on January 24, 1983 the tank level indication was checked to be in good working order by filling the tank to 70% and then lowering it and observing proper level response. (2) The leaking pipe cap threads caused a similar steady false level indication ten days after the first incident.

Soil samples were taken outside the building where the seepage was observed. The highest gross beta concentration was 1.18 E-3 Microcuries per gram. On January 28, 1983, groundwater samples were taken from two test wells which showed no evidence of the spill. This was expected, since a maximum of 1 to 8 gallons of contaminated water is estimated to have seeped out of the building, and was totally contained in the soil next to the building. Approximately 2.5 cubic feet of contaminated soil was removed and disposed of. Soil samples taken directly below where the contaminated soil was removed, showed activity levels well below 10 CFR 30 limits. Based on the above, the safety significance of this event is considered minimal.

Corrective Action

Immediate corrective actions taken were as follows: The contaminated area near the northwest corner of the NRW building was roped off. Herculite was secured against the wall to contain the seepage. The soil directly beneath where seepage was observed was removed and replaced with Speedi-Dri. Once the floor drains were unplugged, the 10,000 ~~to~~ 12,000 gallons of water in the vaults were pumped to CWST "A" and "C". When the seepage was terminated, all the contaminated soil along with the Speedi-Dri was removed and disposed of. (Altogether four 5 gallon buckets of contaminated material was removed). Several days after the incident the herculite was removed. The wall was surveyed for contamination and then released as a clean area. After the February 2, 1983 incident, the threaded clean out cap was cut off, new threads were cut, a rubber stopper was placed in the bubbler pipe and a new cap was installed.

The following are corrective actions which are planned for implementation: (1) coat the interior walls of the vault to help ensure watertight integrity, (2) install level instrumentation for the vault, (3) blowdown the air regulators on a routine basis, and (4) check all threaded connections in the bubbler piping for leaks.