Iowa Electric Light and Power Company
February 24, 1983
DAEC-83- 160

IE HQ FILE COPY

Mr. Harold Denton, Director
Office of Nuclear Regulatory Regulation
U. S. Nuclear Regulatory Commission
1717 H. Street N.W.
Washington, D. C. 20555

Re: Duane Arnold Energy Center

Subject: Environmental Technical Specification Violation Report 83-1

File: A-117, TE-4

Dear Mr. Denton:

This report is submitted in accordance with the requirements of Appendix B to Operating License DPR-49, Specification 3.3.1.B.2.

Problem

On February 14, 1983, while the plant was shut down for refueling, an uncontrolled release of low level activity liquid occurred when approximately 20 gallons of condensate service water (CSW) leaked from a mobile hydrolazer pump trailer into a nearby storm sewer. The trailer which was located outside the Reactor Building within the protected area contained two hydrolazing pumps, two holding tanks, two drip pans/sumps for the water cooled pumps, and associated piping and instrumentation. Water from the tank is used to cool the pumps and is then drained to the drip pan/sump where it is pumped back to the tank via a tube. At approximatly 2300 hours, the hydrolazing pumps and associated equipment in the trailer were turned off to correct minor leaks in hose connections. While the trailer was unattended, CSW in the holding tank siphoned back into the drip pan/sump, overflowed the drip pan, and leaked from the trailer into a nearby storm sewer. At appproximately 2310 hours, health physics personnel returned to the trailer and discovered the drip pan water leaking from the trailer. The sump pump was activated which returned the drip pan water to the holding tank, the storm sewer was covered, the area was posted and surveys were performed.

Monitoring and control of the release of radioactive liquid is required by DAEC Technical Specifications, Appendix B, Section 2.3.1.3.c.

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Investigation

The root cause of the violation was poor equipment design. The design allowed the water in the holding tank to siphon back into the drip pan when the sump pump was turned off.

Based on followup investigation, it was conservatively determined that approximately 20 gallons of CSW had been leaked into the storm sewer. The subsequent sampling did not detect any activity in the discharge canal or river. A water sample from the trailer indicated an activity concentration of approximately 15% of the MPC. The total released activity was estimated to be 0.63 μCi.

Corrective Action

Upon discovery of the water leaking from the trailer, the siphoning action was stopped, the water in the drip pan was returned to the holding tank, the storm sewer was covered, a temporary catch basin was installed under the trailer, sampling was initiated, and the area and trailer decontaminated.

To prevent recurrence, the tube from the drip pan to the holding tank was changed to prevent siphoning, and a shut off valve was provided inside the building. In addition, procedures were revised to provide continuous manning of the trailer when CSW is being used.

This report has been reviewed and approved by the DAEC Operations Committee and the Safety Committee.

Very truly yours,

BR York for

Daniel L. Mineck
Plant Superintendent - Nuclear

DLM/SLB/pf*

Docket 50-331

cc: J. Keppler

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