CONNECTICUT YANKEE ATOMIC POWER COMPANY
HADDAM NECK PLANT
RR #1, BOX 127E, EAST HAMPTON, CONN. 06424

November 26, 1979
CYH 79-251

U. S. Nuclear Regulatory Commission
Region 1
Office of Inspection and Enforcement
631 Park Avenue
King of Prussia, Pennsylvania 19406

Attn: Mr. Boyce Grier,
Director

Reference: Facility Operating License No. DPR-61
Docket No. 50-213
ETS-NR/50-213/79-05

Dear Mr. Grier:

On November 16, 1979 approximately 460 gallons of 12% sodium hypochlorite was inadvertently released to the rivers' edge over a fifteen hour period.

This release was reported by telephone at 1615 on November 16, 1979 to the Region 1 Office of Inspection and Enforcement, as required by the Connecticut Yankee Environmental Technical Specifications, Section 2.3.1.5, as a result of the chlorination period exceeding the 120 minutes per day limitation, and exceeding the allowable total residual chlorine concentration of 0.1 milligram per liter during chlorination.

Section 5.6.2a(1) requires a written report, containing a more detailed description, be submitted to your office within ten days. Attachment "A" contains the required information.

Very truly yours,

Richard H. Graves
Station Superintendent

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RHG:JML/jhb
Attachment

cc: Dir., Office of Nuclear Reactor Regulation, Washington, D. C. (17)

ATTACHMENT A

On November 15, 1979 at 0655 hours the hypochlorite system was tagged out because divers were cleaning the trash racks. The system was put back into service at 1730 hours on November 15, 1979. At approximately 0700 hours on November 16, 1979 it was discovered that the system pumps had been running continuously since the system was returned to service the previous evening. The pumps were immediately shutdown. It has been determined that approximately 460 gallons of 12% sodium hypochlorite was released through the tank overflow line to the river. This release took place over a fifteen hour period.

This incident is a repetitive occurrence. A similar occurrence took place on May 17, 1979 and was reported under ETS-NR/50-213/79-04 dated May 25, 1979.

Investigation of this incident led to the conclusion that operator error and system design were the cause of the release. The operator error was a combination of improper removal and return of the system to service. This was a procedural error. The system design error was two fold:

1. The overflow line dumped directly to the river,

2. The electrical timer scheme for the pump starting and stopping appears to have a design flaw.

The first of these two problems has been eliminated by routing the overflow line into the diked area around the tank, instead of directly to the river. The second problem is being investigated, and if determined to be a design flaw it will be corrected by January 1, 1980 pending approval of design changes and possible material acquisition.

Grab samples at the intake structure showed the residual chlorine concentration to be 0.24 milligrams per liter which exceeds our limit of 0.1 milligrams per liter. Visual inspection of both the intake structure area and the discharge canal showed no detrimental effects to the environment or aquatic life as a result of this release.

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