



CONNECTICUT YANKEE ATOMIC POWER COMPANY

HADDAM NECK PLANT

RR #1, BOX 127E, EAST HAMPTON, CONN. 06424

June 6, 1980

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

Reference: Facility Operating License No. DPR-61
Docket No. 50-213
ETS-NR/50-213/80-05

Dear Mr. Grier:

On May 28, 1980, during reactor vessel inservice inspection program preparations an unplanned radioactive gas release occurred at the Connecticut Yankee site. The release exceeded the instantaneous rate for gaseous discharges as specified in Environmental Technical Specifications, Section 2.4.3.1. A prompt report was made to your office of May 28, 1980.

A written report containing a detailed description as required by Environmental Technical Specifications, Section 5.6.2.a(1) is attached.

Very truly yours,

Richard H. Graves
Station Superintendent

RHG:JHF/jhb
Attachment

cc: Dir., Office of Nuclear Reactor Regulation, Washington, D. C. (17)
USNRC, c/o Document Management Branch, Washington, D. C. (1)

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EVENT DESCRIPTION

On May 28, 1980, at 0034 a radioactive gas release occurred when venting the Volume Control Tank (VCT) to the waste gas system. The flow of gas exceeded the capacity of the waste gas system causing the waste gas system air operated relief valve to actuate and discharge the gas directly to the primary vent stack.

DOSE ASSESSMENT

The gas relieved from the waste gas surge tank was released to the primary vent stack, as designed, and was monitored. 1.7 curies of Xenon-133 were discharged during the six minute release, with 95% of this activity discharged during the initial two minutes. The allowable instantaneous release rate for noble gases, as specified in Environmental Technical Specifications, Section 2.4.3.1(1), was exceeded by a factor of 1.26. The whole body dose at the site boundary was calculated to be 0.006 millirem, comprising a small fraction of the allowable annual limit.

EVENT CAUSE

The VCT air operated relief valve capacity exceeds the capability of the waste gas surge tank during VCT venting operations. Additionally the setting on the waste gas surge tank air operated valve appears to be too low.

CORRECTIVE ACTION

The following are corrective actions to prevent recurrence:

1. An Engineering study of the Volume Control Tank vent design and the waste gas holdup system has been initiated. The VCT vent will be redesigned to limit flow to the waste gas holdup system. After appropriate reviews are completed the redesigned vent system will be installed.
2. The waste gas surge tank air operated relief valve setpoint will be increased pending appropriate reviews.
3. Use of the Volume Control Tank (VCT) vent will be minimized until such time as the redesigned vent is installed.