CONNECTICUT YANKEE ATOMIC POWER COMPANY

HADDAM NECK PLANT
362 INJUN HOLLOW ROAD • EAST HAMPTON, CT 06424-3009

February 19, 1997

Docket No. 50-213
B16268

Re: HNP Technical Specification 3.3.3.5
HNP Technical Specification 6.9.2

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

Haddam Neck Plant
Special Report

The purpose of this letter is for the Connecticut Yankee Atomic Power Company (CYAPCO) to submit a Special Report (Attachment 1). This Special Report is provided in accordance with the Haddam Neck Plant (HNP) Technical Specification 3.3.3.5, Table 3.3-7, Item 18, Action 37 and the HNP Technical Specification 6.9.2. This report is historical in nature, covering the period previous to July 22, 1996.

On February 5, 1997, routine surveillance testing of the Main Stack - Wide Range Noble Gas Monitor (RMS-14B) was completed (duration: 4 days). On February 5, 1977, preliminary results from an ongoing radiological effluents audit indicated that the calibration methods employed for the Main Stack - Wide Range Noble Gas Monitor were inadequate to demonstrate that the Stack Monitor would respond to the intended range and accuracy of known values of input. HNP Technical Specification 3.3.3.5, Table 3.3-7, Item 18 requires that the monitor be operable in Modes 1 through 4. The HNP has been shutdown since July 22, 1996 and in a letter dated December 5, 1996,[1] CYAPCO informed the NRC that the Board of Directors of CYAPCO had decided to permanently cease operations at the HNP and that the fuel had been permanently removed from the reactor.

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(1) T. C. Feigenbaum letter to the U. S. Nuclear Regulatory Commission, "Certifications Of Permanent Cessation Of Power Operation And That Fuel Has Been Permanently Removed From The Reactor," dated December 5, 1996.

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The calibration methods employed do not ensure that the electronic portions of the circuitry are accurate throughout the entire range of the instrument, and detector calibrations do not verify the counting efficiency of the detector, therefore, linearity and response over the intended range of the channels cannot be demonstrated. Due to this miscalibration, the operability of RMS-14B is in question for the period previous to July 22, 1996. Pursuant to HNP Technical Specification 3.3.3.5, Table 3.3-7, Item 18, Action 37 and HNP Technical Specification 6.9.2, this report is required to be filed within ten days of the end of the seven day action statement.

If you should have any questions, please contact Mr. G. F. van Noordennen at (860) 267-3938.

Very truly yours,

CONNECTICUT YANKEE ATOMIC POWER COMPANY

FOR: Jere J. LaPlatney
Haddam Neck Unit Director

Gary H. Bouchard
Haddam Neck Work Services Director

cc: H. J. Miller, NRC Region I Administrator
M. B. Fairtile, NRC Project Manager, Haddam Neck Plant
W. J. Raymond, NRC Senior Resident Inspector, Haddam Neck Plant

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Attachment 1

Haddam Neck Plant

Special Report

Inoperable Main Stack - Wide Range Noble Gas Monitor

February 19, 1997

Special Report
Inoperable Main Stack - Wide Range Noble Gas Monitor

Introduction

The Main Stack - Wide Range Noble Gas Monitor, RMS-14B, is intended to be used during accident releases. It is designed to measure radioactive gas concentrations in the range of 1.0E-07 to 1.0E+05 microcuries/cc of Xenon-133. This range is significantly larger than the capabilities of the other stack monitor, RMS-14A.

RMS-14B is calibrated and functionally checked on a quarterly basis using Station Procedure SUR 5.2-69 ("Calibration and Functional Check of the Main Stack - Wide Range Noble Gas Monitor (RMS-14B)").

HNP Technical Specification 3.3.3.5, Table 3.3-7, Item 18 requires that the monitor be operable in Modes 1 through 4. The HNP has been shutdown since July 22, 1996 and in a letter dated December 5, 1996,[1] CYAPCO informed the NRC that the Board of Directors of CYAPCO had decided to permanently cease operations at the HNP and that the fuel had been permanently removed from the reactor.

Discussion

On February 5, 1997, preliminary results from an ongoing radiological effluents audit indicated that the calibration methods employed for the Main Stack - Wide Range Noble Gas Monitor were inadequate to demonstrate that the Stack Monitor would respond to the intended range and accuracy of known values of input. The calibration methods employed do not ensure that the electronic portions of the circuitry are accurate throughout the entire range of the instrument, and detector calibrations do not verify the counting efficiency of the detector, therefore, linearity and response over intended range of the channels cannot be demonstrated. Due to this miscalibration, the operability of RMS-14B is in question for the period previous to July 22, 1996. Pursuant to HNP Technical Specification 3.3.3.5, Table 3.3-7, Item 18, Action 37 and HNP Technical Specification 6.9.2, this report is required to be filed within ten days of the end of the seven day action statement.

The calibration procedure is being revised to improve the calibration technique to demonstrate accuracy and linearity over the intended range of the monitor.

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(1) T. C. Feigenbaum letter to the U. S. Nuclear Regulatory Commission, "Certifications Of Permanent Cessation Of Power Operation And That Fuel Has Been Permanently Removed From The Reactor," dated December 5, 1996.

During the time that the Main Stack - Wide Range Noble Gas Monitor is out of service, routine gaseous effluents are adequately monitored with the back-up stack monitor, RMS-14A. Should an event have occurred that resulted in the radioactive effluent release rate increasing beyond the range of the back-up stack monitor, back-up procedures (Emergency Plan Implementation Procedures) are in place for radiation dose assessment, including the use of radiological field teams. These procedures provide adequate means to determine effluent release rates based upon calculations using field data.

On the basis that adequate alternate capabilities using the back-up stack monitor and Emergency Plan procedures are in place, the inoperability of RMS-14B imposed a low safety significance on CYAPCO's ability to assess the dose consequence of a major gaseous release.