CONNECTICUT YANKEE ATOMIC POWER COMPANY

HADDAM NECK PLANT
362 INJUN HOLLOW ROAD • EAST HAMPTON, CT 06424-3099

April 1, 1997
Re: 10CFR50.73(a)(2)(i)
CY-97-026

U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, D. C. 20555

Reference: Facility Operating License No. DPR-61
Docket No. 50-213
Reportable Occurrence LER 50-213/97-005-00

This letter forwards the Licensee Event Report 97-005-00, required to be submitted, pursuant to the requirements of the Haddam Neck Plant's Technical Specifications.

Very truly yours,

G. H. Bouchard
Unit Director

GHB/reb

Attachment: LER 50-213/97-005-00

cc: Mr. H. J. Miller
Regional Administrator, Region I
475 Allendale Road
King of Prussia, PA 19406

Mr. William J. Raymond
Sr. Resident Inspector
Haddam Neck

NRC FORM 366 (4-95) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104
EXPIRES 04/30/98

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MANDATORY INFORMATION COLLECTION REQUEST: 50.0 HRS. REPORTED LESSONS LEARNED ARE INCORPORATED INTO THE LICENSING PROCESS AND FED BACK TO INDUSTRY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Haddam Neck	05000213	1 of 4

TITLE (4)

Calibration of Radiation Monitoring System Effluent Monitors Potentially Inadequate

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
										05000
02	06	97	97	005	00	04	01	97	FACILITY NAME	DOCKET NUMBER 0500

OPERATING MODE (9)	N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)			
POWER LEVEL (10)	000	20.2201(b)	20.2203(a)(2)(v)	[X] 50.73(a)(2)(i)	50.73(a)(2)(viii)
		20.2203(a)(1)	20.2203(a)(3)(i)	50.73(a)(2)(ii)	50.73(a)(2)(x)
		20.2203(a)(2)(i)	20.2203(a)(3)(ii)	50.73(a)(2)(iii)	73.71
		20.2203(a)(2)(ii)	20.2203(a)(4)	50.73(a)(2)(iv)	OTHER
		20.2203(a)(2)(iii)	50.36(c)(1)	50.73(a)(2)(v)	Specify in Abstract below or in NRC Form 366A
		20.2203(a)(2)(iv)	50.36(c)(2)	50.73(a)(2)(vii)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (Include Area Code)
Gunti Goncarovs, Chemistry Manager	(860)267-2556

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION	MONTH	DAY	YEAR
[X] YES (If yes, complete EXPECTED SUBMISSION DATE).	[ ] NO		07	01	97

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On February 6, 1997, at approximately 1400 hours, with the plant defueled, it was determined that the methods used to calibrate the liquid and gaseous radiation effluent monitors were potentially inadequate. On February 6, 1997, at 1639 hours the monitors were declared inoperable and appropriate compensatory sampling was initiated in accordance with the plant's Technical Specifications. Efforts to determine historical operability of the monitors proved inconclusive, therefore, on March 3, 1997, it was decided to conservatively report this event under 10CFR50.73(a)(2)(i)(B) as a condition prohibited by the plant's Technical Specifications. A root cause evaluation is being performed and the results of the evaluation will be forwarded in a supplemental LER. Interim corrective action consists of initiating an investigation to determine if the as found settings of the detectors were accurate and performing primary calibrations for all monitors. In addition, procedures, which electronically calibrate the detectors, will be modified based on appropriate methodology.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)					PAGE (3)
		YEAR	SEQUENTIAL NUMBER			REVISION NUMBER	
Haddam Neck	05000213	97	--	005	--	00	2 of 4

TEXT *(If more space is required, use additional copies of NRC Form 366A)* (17)

BACKGROUND INFORMATION

Technical Specification 3.3.3.7 (Radioactive Liquid Effluent Monitoring Instrumentation) requires that the radioactive liquid effluent monitoring instrumentation be operable with applicable alarm/trip setpoints set to ensure that the concentration of radioactive material released from the site does not exceed the concentrations specified in 10CFR20, Appendix B, Table II, Column 2 for radionuclides other than dissolved or entrained noble gases.

Technical Specification 3.3.3.8 (Radioactive Gaseous Effluent Monitoring Instrumentation) requires that the radioactive gaseous effluent monitoring instrumentation be operable with applicable alarm/trip setpoints set to ensure that the dose rate offsite due to radioactive materials released in gaseous effluents from the site do not exceed specified limits.

Technical Specification 4.3.3.7.1 and 4.3.3.8.1 require channel calibrations of the radiation monitoring system (EIIS Code: IL) effluent monitors.

EVENT DESCRIPTION

On February 6, 1997, at approximately 1400 hours, with the plant defueled, it was determined that the methods used to calibrate the liquid and gaseous radiation effluent monitors were potentially inadequate. On February 6, 1997, at 1639 hours the monitors were declared inoperable and appropriate compensatory sampling was initiated in accordance with the plant's Technical Specifications.

The river effluent monitor (R-18) which monitors service water leaving the plant was upgraded to a new type of monitor on June 29, 1996. During the installation process, the station accepted the vendor's primary calibration transfer data without performing a primary calibration (calibration with standards in a similar geometry to the operating configuration) for verification of the electronic settings provided by the vendor.

The liquid test tank monitor (R-22) had been electronically calibrated on February 1, 1997 without performing a plateau check. Plateau checks are an accepted method used to verify the high voltage bias applied to the detector of the radiation monitor.

The main stack monitor (R-14A) which monitors all gaseous effluents from the facility was upgraded to a new type of monitor on August 4, 1996. During the installation process, the station accepted the vendor's primary calibration transfer data without performing a primary calibration (calibration with standards in a similar geometry to the operating configuration) for verification of the electronic settings provided by the vendor.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)					PAGE (3)
		YEAR	SEQUENTIAL NUMBER			REVISION NUMBER	
Haddam Neck	05000213	97	--	005	--	00	3 of 4

TEXT *(If more space is required, use additional copies of NRC Form 366A)* **(17)**

The Wide Range Gas Monitor (R-14B), which is used as a backup to the main stack monitor was last calibrated in November 1996 without performing a plateau check. Plateau checks are an accepted method used to verify the high voltage bias applied to the detector of the radiation monitor.

CAUSE OF EVENT

A root cause evaluation is being performed and the results of the evaluation will be forwarded in a supplemental LER.

SAFETY ASSESSMENT

Efforts to determine historical operability of the monitors proved inconclusive, therefore, on March 3, 1997, it was decided to conservatively report this event under 10CFR50.73(a)(2)(i)(B) as a condition prohibited by the plant's Technical Specifications. It was determined that failure to verify the primary calibrations constituted a missed surveillance.

Calibration of the radiation monitoring system ensures that setpoints can be established to insure all radioactive effluents released from the site are maintained within the specified limits. Since most of the doses associated with effluents are calculated based on source term activities and not monitor readings, the dose limits specified in Technical Specification 3.11.1.1 (Liquid Effluents Concentration) and 3.11.2.1 (Gaseous Effluents Dose Rate) were not exceeded. Exceptions to source term based dose calculations would be an unplanned gas release and venting of the reactor coolant loops during outages. In these cases release permits are prepared based upon monitor response however, source term sampling is performed as soon as practical. Both evolutions represent a small fraction of the total annual dose of the site.

Based on the above, the safety significance of this event is low.

CORRECTIVE ACTION

Interim corrective action consists of initiating an investigation to determine if the as found settings of the detectors were accurate and performing primary calibrations for all monitors. The results of the investigation will be submitted in a supplemental LER. Additionally, procedures, which electronically calibrate the detectors, will be modified based on appropriate methodology. Any additional corrective action required as a result of the root cause evaluation will also be submitted in a supplemental LER.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)					PAGE (3)
		YEAR	SEQUENTIAL NUMBER			REVISION NUMBER	
Haddam Neck	05000213	97	--	005	--	00	4 of 4

TEXT *(If more space is required, use additional copies of NRC Form 366A)* **(17)**

ADDITIONAL INFORMATION

The following are commitments made within this report. All other statements are for information only.

CY-97-026-1 Procedures, which electronically calibrate the detectors, will be modified based on appropriate methodology.

CY-97-026-2 Primary calibrations for all monitors will be performed.

CY-97-026-3 An investigation will be conducted to determine if the as found settings of the detectors were accurate. The results of the investigation will be submitted in a supplemental LER.

CY-97-026-4 A root cause evaluation is being performed and the results of the evaluation will be forwarded in a supplemental LER.

PREVIOUS SIMILAR EVENTS

None