



CONNECTICUT YANKEE ATOMIC POWER COMPANY

HADDAM NECK PLANT

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

June 10, 1997

Re: 10CFR50.73(a)(2)(i)

CY-97-064

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 50-213/95-015-01

This letter forwards the Licensee Event Report 95-015-01, required to be submitted, pursuant to the requirements of the Haddam Neck Plant's Technical Specifications.

Very truly yours,

R.A. Mellor
Director - Site Operations and Decommissioning

RAM/reb

Attachment: LER 50-213/95-015-01

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

1/1
Lerr



LICENSEE EVENT REPORT (LER)

(See reverse for required number of
digits/characters for each block)ESTIMATED BURDEN P. R. 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 (IT-
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.

FACILITY NAME (1)

Haddam Neck

DOCKET NUMBER (2)

05000213

PAGE (3)

1 of 4

TITLE (4)

Steam Generator Narrow Range Level Channel Found Inoperable

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
06	02	95	95	015	01	06	10	97	FACILITY NAME	DOCKET NUMBER
										05000
										0500
OPERATING MODE (9)		1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)							
			20.2201(b)			20.2203(a)(2)(v)			<input checked="" type="checkbox"/> 50.73(a)(2)(i)	50.73(a)(2)(viii)
POWER LEVEL (10)		100	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

Josaun DeLawrence, Engineering Programs

TELEPHONE NUMBER (Include Area Code)

(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)

YES	NO	EXPECTED SUBMISSION	MONTH	DAY	YEAR
(If yes, complete EXPECTED SUBMISSION DATE).	<input checked="" type="checkbox"/>				

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

On May 23, 1995, at 2110 hours, with the plant in mode 1, at 97 percent power, narrow range steam generator level channel 4C increased approximately 4% relative to channels 4A and 4D. On May 24, 1995 it was confirmed that the indicator and rack equipment were in calibration which indicated that the transmitter had shifted upscale approximately 4%. On May 31, 1995, at 1138 hours, channel 4C was placed in trip pending a review of the effect of the transmitter shift on channel operability. The Technical Specifications allow continued operation with one channel inoperable until performance of the next required analog operational test provided the inoperable channel is placed in trip. On June 2, 1995, at 1530 hours, with the plant at 100% power, channel 4C was determined to be inoperable based on the expectation that the low level transmitter would not occur within the Technical Specification allowable value. This is prohibited as operation prohibited by the Technical Specifications. On June 9, 1995, the transmitter was replaced and channel 4C was declared operable at 1235 hours. The plant was briefly entered Technical Specification 3.0.3 for a total of 25 minutes in order to replace and replace the transmitter. The transmitter was sent to the manufacturer however the results of the failure analysis were inconclusive.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)				PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
Haddam Neck	05000213	95	-- 015 --	01		2 of 4

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

BACKGROUND INFORMATION

Level transmitter LT-1301-4C (EIIS Code: LT) is one of three level transmitters connected to the narrow range steam generator level taps for the No. 4 steam generator. If two of the three transmitters detect steam generator level above the allowable value of 80%, overflow protection (EIIS Code: JE) for the steam generator is actuated. The feedwater isolation motor operated valve will begin to close and the feedwater regulating valve will close. If two of the three transmitters detect steam generator level below the Technical Specification allowable value of 11%, the level portion of the steam flow flow/feed flow mismatch coincident with low level reactor trip (EIIS Code: JC) is actuated.

EVENT DESCRIPTION

On May 23, 1995, at 2110 hours, with the plant in mode 1, at 97 percent power, narrow range steam generator level channel 4C increased approximately 4% relative to channels 4A and 4D. Channel 4C was tracking channels 4A and 4D. Control room operators identified the problem via the trouble reporting system to initiate corrective action, however, specific quantitative criteria for determining channel operability was not available. Channel checks performed each shift include a qualitative assessment of channel behavior with follow-up actions by investigating departments to determine operability for relatively small deviations in channel behavior. On May 24, 1995 it was confirmed that the indicator and rack equipment were in calibration which indicated that the transmitter had shifted upscale approximately 4%. On May 31, 1995, at 1138 hours, channel 4C was placed in trip pending a review of the effect of transmitter 4C zero shift on channel operability. Technical Specifications allow continued operation with one channel inoperable until performance of the next required analog operational test provided the inoperable channel is placed in trip. On June 2, 1995, at 1530 hours, with the plant at 100% power, channel 4C was determined to be inoperable based on the expectation that the low level trip would not occur within the Technical Specification allowable value. This is reportable under 10CFR50.73(a)(2)(i)(B) as operation prohibited by the Technical Specifications since channel 4C was inoperable but not in trip from May 23 at 2110 hours until May 31 at 1138 hours.

CAUSE OF THE EVENT

The cause of the event was the failure to identify that channel 4C was inoperable within the one hour allowed by the Technical specifications. The transmitter was sent to the manufacturer to determine the cause for the calibration drift however a conclusive failure determination was not possible. The failure was duplicated in the laboratory and appeared to be temperature related. However, during the attempt to isolate the failure to a specific component the problem disappeared.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)				PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
Haddam Neck	05000213	95	-- 015 --	01		3 of 4

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

SAFETY ASSESSMENT

This event is reportable under 10CFR50.73(a)(2)(i)(B) as any operation or condition prohibited by the plant's Technical Specifications. Specifically, one of the narrow range steam generator level transmitters was outside its calibration range by 5 to 6% over a period of 1 week while operability was being determined.

The Technical Specification for the steam generator low level reactor trip setpoint is greater than 13% with an allowable of greater than 11%. Procedurally, the trip setpoint is set and verified to trip at 14% +/-0.5%. With one transmitter reading high, and assuming one of the other two transmitters failed, the actuation of the reactor trip coincident with a steam/feedwater flow mismatch would have occurred at approximately 8%, 6% below the setpoint. The safety analysis assumes that the reactor trip will occur prior to a steam generator level of 5%. Therefore, since this event is bounded by the safety analysis the safety significance is low.

This event is also reportable as a condition prohibited by the plant's Technical Specifications due to the voluntary entry into Technical Specification 3.0.3.

CORRECTIVE ACTION

On June 9, 1995, with the plant at 100% percent power, the transmitter was replaced, calibrated and channel 4C was declared operable at 1235 hours. The plant voluntarily entered Technical Specification 3.0.3 for a total of 25 minutes in order to isolate and replace the transmitter. Entry into 3.0.3 was necessary since the overfill protection feature for steam generator #4 was defeated and declared inoperable to prevent an inadvertent feedwater isolation actuation while the transmitter was being isolated and reconnected. The low level trips for channels 4A and 4D were left inservice but considered inoperable while the transmitter was being isolated and reconnected. The transmitter is being sent to the manufacturer to determine the cause for the calibration drift. Engineering developed guidance to aid plant operators in determining the operability of redundant channels.

Since the Haddam Neck plant has permanently ceased power operation and all fuel has been permanently removed from the reactor vessel no further corrective action is required.

ADDITIONAL INFORMATION

<u>Component</u>	<u>Manufacturer</u>	<u>Model No.</u>
Level Transmitter	Rosemount	1154HP4RC

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)				PAGE (3)
Haddam Neck	05000213	YEAR	SEQUENTIAL NUMBER		REVISION NUMBER	4 of 4
		95	-- 015 --	01		

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

This supplemental report was issued to document the results of the manufacturer's failure analysis and to note that no further action is required due to the Haddam Neck plant being in a permanently defueled state.

PREVIOUS SIMILAR EVENTS

None.