



CONNECTICUT YANKEE ATOMIC POWER COMPANY

HADDAM NECK PLANT

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

November 13, 1996

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

10CFR50.73(a)(2)(v)

B16013

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 50-213/96-028-00

This letter forwards the Licensee Event Report 96-028-00, required to be submitted, pursuant to the requirements of the Haddam Neck Plant's Technical Specifications.

Very truly yours,

J. J. LaPlathey
Unit Director

JJL/eda

Attachment: LER 50-213/96-028-00

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

9611250094 961113
PDR ADOCK 05000213
S PDR

IE221/

LICENSEE EVENT REPORT (LER)

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

FACILITY NAME (1)

Haddam Neck

DOCKET NUMBER (2)

05000213

PAGE (3)

1 of 3

TITLE (4)

Containment Personnel Air Lock Hydraulic System Does Not Meet Appendix J Criteria

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
10	16	96	96	028	00	11	13	96	FACILITY NAME	DOCKET NUMBER
										05000
									FACILITY NAME	DOCKET NUMBER
										0500
OPERATING MODE (9)		5	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)							
			20.2201(b)			20.2203(a)(2)(v)			50.73(a)(2)(i)	50.73(a)(2)(viii)
POWER LEVEL (10)		000	20.2203(a)(1)			20.2203(a)(3)(i)			<input checked="" type="checkbox"/> 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)			<input checked="" type="checkbox"/> 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

Michael Marino, Technical Support

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)

EXPECTED
SUBMISSION

MONTH

DAY

YEAR

☐ YES

(If yes, complete EXPECTED SUBMISSION DATE).

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

On October 16, 1996, at 1705 hours, with the plant in Mode 5 (cold shutdown) a reportability evaluation determined that the containment personnel airlock hydraulic system does not meet the requirements of 10CFR50, Appendix J for local leak rate testing and has never been Type B tested. This condition was found during a review of a proposed modification to the hydraulic system. The system penetrates the containment pressure boundary as a non-seismic, non-QA system with no penetration isolation provisions. The plant was designed and constructed prior to Appendix J and Appendix A design criteria. The hydraulic system penetrations have essentially remained the same since original purchase and installation. The cause of this condition was an administrative oversight due to the failure to recognize the hydraulic system as a separate penetration, requiring a Type B test in accordance with Appendix J. No immediate corrective action was necessary since containment integrity is not required in Modes 5 and 6. Long term corrective action consists of modifying the penetration and performing a local leak rate test prior to startup from the current refueling outage. In addition, the penetration will be added to the Appendix J test program. Implementation of the corrective action is contingent upon resumption of operation of the Haddam Neck plant.

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	96	--	028	-- 00	2 of 3

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

BACKGROUND INFORMATION

The containment (EIIIS Code: JM) personnel airlock hydraulic system is mounted within the airlock supplying hydraulic fluid to control valves and hydraulic components inside the airlock barrel. Hydraulic fluid is also supplied to the inside of containment (through penetrations) for operation of the inner door locking ring hydraulic cylinders and outside of containment (through penetrations) for operation of the outer door locking ring hydraulic cylinders.

The system penetrates the containment pressure boundary as a non-seismic, non-QA system with no penetration isolation provisions. The plant was designed and constructed prior to 10CFR 50 Appendix J and Appendix A which address containment and penetration design and testing criteria. The hydraulic system penetrations have essentially remained the same since original purchase and installation.

EVENT DESCRIPTION

On October 16, 1996, at 1705 hours, with the plant in Mode 5 (cold shutdown) a reportability evaluation determined that the containment personnel airlock hydraulic system does not meet the requirements of 10CFR50, Appendix J for local leak rate testing and has never been Type B tested. This condition was found during a review of a proposed modification to the hydraulic system. No immediate corrective action was necessary since containment integrity is not required in Modes 5 and 6.

CAUSE OF EVENT

The cause of this condition was an administrative oversight due to the failure to recognize the hydraulic system as a separate penetration, requiring a Type B test in accordance with Appendix J.

SAFETY ASSESSMENT

This condition is reportable under 10CFR50.73 (a)(ii) as any event found while the reactor was shut down that, had it been found while the reactor was in operation, would have resulted in the plant being in an unanalyzed condition.

It is also reportable under 10CFR50.73 (a)(2)(v)(C)/(D) as a condition that alone could have prevented the fulfillment of the safety function of a safety structure to control the release of radioactive material and assist in the mitigation of the consequences of an accident.

The hydraulic system on the containment personnel airlock penetrates the primary containment pressure boundary with no penetration isolation provisions. Therefore, the penetration does not comply with 10CFR50 Appendix A design criteria 2, 50, 54 or 57 which address containment design and penetration isolation provisions.

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	96	--	028	--	00	3 of 3

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

Although previous Type A, integrated leak rate tests (ILRT) were conducted, the hydraulic system was never tested in a condition that verified its pressure integrity. Furthermore, no localized testing of the hydraulic system was performed periodically or following preventive or corrective maintenance which may have changed the system's ability to perform its safety function as a containment pressure boundary.

Following a loss of coolant accident or steam line break inside containment the containment pressure could displace the hydraulic fluid through the inner hydraulic mechanical seals and fittings. The containment atmosphere would then migrate through the tubing and escape to the outside environment through the outer hydraulic mechanical seals and fittings. Although this is a potential leakage path, the amount of leakage would be greatly reduced by the restrictions afforded by the components within this tortuous path and the resistance provided by the hydraulic fluid within the components.

This potential leakage path is considered to be of low safety significance.

CORRECTIVE ACTION

Long term corrective action consists of modifying the hydraulic system penetrations and performing a local leak rate test prior to startup from the current refueling outage. In addition, the penetration will be added to the Appendix J test program

Implementation of the corrective action is contingent upon resumption of operation of the Haddam Neck plant.

ADDITIONAL INFORMATION

Commitments

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

B16013-1 The hydraulic system penetrations will be modified and a local leak rate test performed prior to startup from the current refueling outage.

B16013-2 The hydraulic system penetrations will be added to the Appendix J test program.

Implementation of the commitments is contingent upon resumption of operation of the Haddam Neck plant.

PREVIOUS SIMILAR EVENTS

LER 96-020-00, "Fuel Transfer Tube Bellow Not in Containment Penetration Test Program"