



CONNECTICUT YANKEE ATOMIC POWER COMPANY

HADDAM NECK PLANT

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

December 5, 1994

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

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 50-213/94-026-00

This letter forwards the Licensee Event Report 94-026-00, required to be submitted, pursuant to the requirements of the Haddam Neck Plant's Technical Specifications.

Very truly yours,

Jere J. LaPlatney
Vice President

JJL/mlg

Attachment: LER 50 213/94-026-00

cc: Mr. Thomas T. Martin
Regional Administrator, Region I
475 Allendale Road
King of Prussia, PA 19406

William Raymond
Sr. Resident Inspector
Haddam Neck

130103

1026-3 REV 2-91

941214020' 741205
PDR ADCC 03000213
S PDR

JESZ

LICENSEE EVENT REPORT (LER)

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

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), 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)

05000 213

PAGE (3)

1 OF 6

TITLE (4)

Technical Specification 3.0.3 Entered Due to Inoperable Containment Isolation Valve

EVENT DATE (5)			LER NUMBER (6)			REPORT NUMBER (7)			OTHER FACILITIES INVOLVED (8)																											
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER																										
11	09	94	94	026	00	12	5	94		05000																										
<p>THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)</p> <table border="1"> <tr> <td>OPERATING MODE (9)</td> <td>1</td> <td>20.402(b)</td> <td>20.405(c)</td> <td>50.73(a)(2)(iv)</td> <td>73.71(b)</td> </tr> <tr> <td rowspan="5">POWER LEVEL (10)</td> <td rowspan="5">100</td> <td>20.405(a)(1)(i)</td> <td>50.36(c)(1)</td> <td>50.73(a)(2)(v)</td> <td>73.71(c)</td> </tr> <tr> <td>20.405(a)(1)(ii)</td> <td>50.36(c)(2)</td> <td>50.73(a)(2)(vii)</td> <td>OTHER</td> </tr> <tr> <td>20.405(a)(1)(iii)</td> <td>X 50.73(a)(2)(i)</td> <td>50.73(a)(2)(viii)(A)</td> <td rowspan="3">(Specify in Abstract below and in Text, NRC Form 366A)</td> </tr> <tr> <td>20.405(a)(1)(iv)</td> <td>50.73(a)(2)(ii)</td> <td>50.73(a)(2)(viii)(B)</td> </tr> <tr> <td>20.405(a)(1)(v)</td> <td>50.73(a)(2)(iii)</td> <td>50.73(a)(2)(x)</td> </tr> </table>											OPERATING MODE (9)	1	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)	POWER LEVEL (10)	100	20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)	20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER	20.405(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	(Specify in Abstract below and in Text, NRC Form 366A)	20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)
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		20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)																																
		20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)																																

LICENSEE CONTACT FOR THIS LER (12)

NAME

M. Marino, System Engineer

TELEPHONE NUMBER (include Area Code)

203-267-2556

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC
X	AB	ISV	M120	Y					

SUPPLEMENTAL REPORT EXPECTED (14)

<input checked="" type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)	<input type="checkbox"/> NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
			4	5	95

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

On November 9, 1994, at 0745 hours, with the plant in Mode 1, at 100 percent power, a containment isolation valve (SS-AOV-955), which was being closed to support reactor coolant system sampling, failed to close and was declared inoperable. At 0830, following a review of the Technical Specifications, operators concluded that this failure constituted entry into Technical Specification Action Statement 3.0.3. At 0835, the valve indicated closed. At 0850, a power reduction was commenced. The valve was verified closed, deactivated, and isolated by closed manual valves upstream and downstream. Technical Specification 3.0.3 was exited at 0948 and the power reduction was stopped at approximately 82 percent power. On November 10, 1994, a temporary modification was installed which diverted the normal sampling path through another sampling penetration, thus, allowing SS-AOV-955 to remain in the closed position, fulfilling its safety function, without impeding normal plant operation. The root cause of the valve failure is under investigation. A supplemental report providing the results of the cause of the failure and corrective action will be issued after the valve is disassembled during the 1995 refueling outage.

REQUIRED NUMBER OF DIGITS/CHARACTERS
FOR EACH BLOCK

BLOCK NUMBER	NUMBER OF DIGITS/CHARACTERS	TITLE
1	UP TO 46	FACILITY NAME
2	8 TOTAL 3 IN ADDITION TO 05000	DOCKET NUMBER
3	VARIES	PAGE NUMBER
4	UP TO 76	TITLE
5	6 TOTAL 2 PER BLOCK	EVENT DATE
6	7 TOTAL 2 FOR YEAR 3 FOR SEQUENTIAL NUMBER 2 FOR REVISION NUMBER	LER NUMBER
7	6 TOTAL 2 PER BLOCK	REPORT DATE
8	UP TO 18 -- FACILITY NAME 8 TOTAL -- DOCKET NUMBER 3 IN ADDITION TO 05000	OTHER FACILITIES INVOLVED
9	1	OPERATING MODE
10	3	POWER LEVEL
11	1 CHECK BOX THAT APPLIES	REQUIREMENTS OF 10 CFR
12	UP TO 50 FOR NAME 14 FOR TELEPHONE	LICENSEE CONTACT
13	CAUSE VARIES 2 FOR SYSTEM 4 FOR COMPONENT 4 FOR MANUFACTURER NPRDS VARIES	EACH COMPONENT FAILURE
14	1 CHECK BOX THAT APPLIES	SUPPLEMENTAL REPORT EXPECTED
15	6 TOTAL 2 PER BLOCK	EXPECTED SUBMISSION DATE

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

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FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Haddam Neck	05000 213	94	- 026 -	00	2 OF 6

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

BACKGROUND INFORMATION

Normal reactor coolant system (EIIS Code: AB) sampling is accomplished by passing flow through one of four 3/8 inch containment isolation (EIIS Code: JM) valves, depending on the desired location of sampling. These valves are in parallel (see Figure 1). Each of these penetrations is equipped with a single automatic isolation valve (EIIS Code: ISV) located outside containment. Three of the four valves are normally closed and one (SS-AOV-955) is normally open. Besides sampling, the line containing SS-AOV-955 is used to provide a continuous vent for non-condensable gases from the pressurizer steam space to the volume control tank. This line is equipped with several manual isolation valves, including an upstream, in-containment valve used as a leak rate test boundary.

Three times per week SS-AOV-955 is closed to align the system for sampling the pressurizer liquid space. The valve is subsequently reopened after the sample is taken. This provides frequent assurance of valve operability, in addition to a quarterly surveillance which requires timing the valve's stroke.

SS-AOV-955 is air operated to open and fails shut on loss of air or loss of power to its associated solenoid valve. Flow through SS-AOV-955 from inside to outside containment is under the seat of this globe valve. The valve normally shuts against a 2000 psi differential pressure, while under accident conditions this differential pressure is substantially reduced. This results in the net closing force on the valve being greater under accident conditions than at normal operating conditions. The valve is equipped with position indication lights.

EVENT DESCRIPTION

On November 9, 1994, at 0745 hours, with the plant in Mode 1, at 100 percent power, a containment isolation valve (SS-AOV-955), which was being closed to support reactor coolant system sampling, failed to close and was declared inoperable. A valve lineup was in progress by operators and chemistry technicians to sample the pressurizer liquid space. The main control board switch for SS-AOV-955 was placed in the close position. The red, open, indicating light promptly went out, but the green, closed, light failed to illuminate after the expected amount of time. The switch was cycled several times. The valve appropriately indicated open, but would not indicate closed.

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

The switch was left in the closed position and the valve declared inoperable at 0745. The failure to close disabled the automatic isolation capability of this penetration. Initial review of the plant's Technical Specifications indicated that Specification 3.6.3 applied, which allowed four hours to take compensatory action. Subsequently, at 0830, it was determined that Specification 3.0.3 applied. At 0835, SS-AOV-955 indicated closed. At 0850, a power reduction was begun. At 0857, SS-AOV-955 was verified closed by demonstrating that it prevented flow. At 0948, SS-AOV-955 was deactivated by removing its associated air line and was isolated by shutting both upstream and downstream manual valves. This allowed exiting the action statement and stabilizing power at approximately 82 percent power.

CAUSE OF THE EVENT

Since SS-AOV-955 cannot be disassembled until the plant reaches cold shutdown the cause of this failure will be investigated during the next refueling outage, currently scheduled for January, 1995. A supplemental report will be issued following the refueling outage to report the results of the investigation.

The delay in determining the appropriate Technical Specification occurred due to the working of Technical Specification 3.6.3. It is written to address the typical configuration of two automatic isolation valves in series. Since the affected penetration has a single automatic isolation valve, 3.6.3 was finally determined not to be applicable.

SAFETY ASSESSMENT

This event is reportable under 10CFR50.73(a)(2)(i)(B) as a condition prohibited by the plant's Technical Specifications due to entry into Technical Specification 3.0.3.

Technical Specification 3.6.3 requires containment isolation valves be operable with isolation times less than or equal to the required isolation times. The action statement requires that at least one isolation valve be operable for each penetration that is open. Since this valve is not in series with another automatic isolation valve, it was felt that Technical Specification 3.6.3 did not apply.

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

Technical Specification 3.0.3 was entered as a result of the plant not meeting a Limiting Condition for Operation.

SS-AOV-955 is in a 3/8 inch tubing line used for sampling the steam space of the pressurizer and is normally lined up to the volume control tank (VCT) for venting of the non-condensable gases. The non-condensable gases enter the VCT at the bottom and pass up through the liquid, thus, entrapping the radioactive gases. If a loss of coolant accident or safety injection had occurred with this valve stuck open, the potential existed for the release of radioactivity. However, since the flow path with SS-AOV-955 open is through the bottom of the VCT and the VCT is isolated during an accident (normal letdown and charging flow paths are closed) any radioactivity would be trapped within the VCT. Also, under normal operating conditions the pressure at SS-AOV-955 is that of the reactor coolant system and under accident conditions the pressure would be substantially reduced, therefore increasing the likelihood of valve closure.

Since the valve did eventually close on its own prior isolation and the VCT is isolated under accident conditions, the safety significance of this event is low.

CORRECTIVE ACTION

On November 10, 1994, a temporary modification was installed which diverted the pressurizer vent path through another sampling penetration. This allowed SS-AOV-955 to remain deactivated in the closed position, fulfilling its safety function, without impeding normal plant operation.

Corrective actions to return SS-AOV-955 to its normal function will be determined after the valve is disassembled during the 1995 refueling outage. The results of the corrective action will be submitted in the supplemental report.

A request for a change to the Technical Specifications will be submitted by July, 1995 to clarify Technical Specification 3.6.3 regarding containment penetrations with only one isolation valve.

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

ADDITIONAL INFORMATION

<u>Component</u>	<u>Manufacturer</u>	<u>Model Number</u>
Air Operated Valve	Masoneilan	38-20551

PREVIOUS SIMILAR EVENTS

None

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME (1)		DOCKET NUMBER (2)		LER NUMBER (6)		PAGE (3)
Haddam Neck		05000 213		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER
		94	- 026 -	00	6	OF 6

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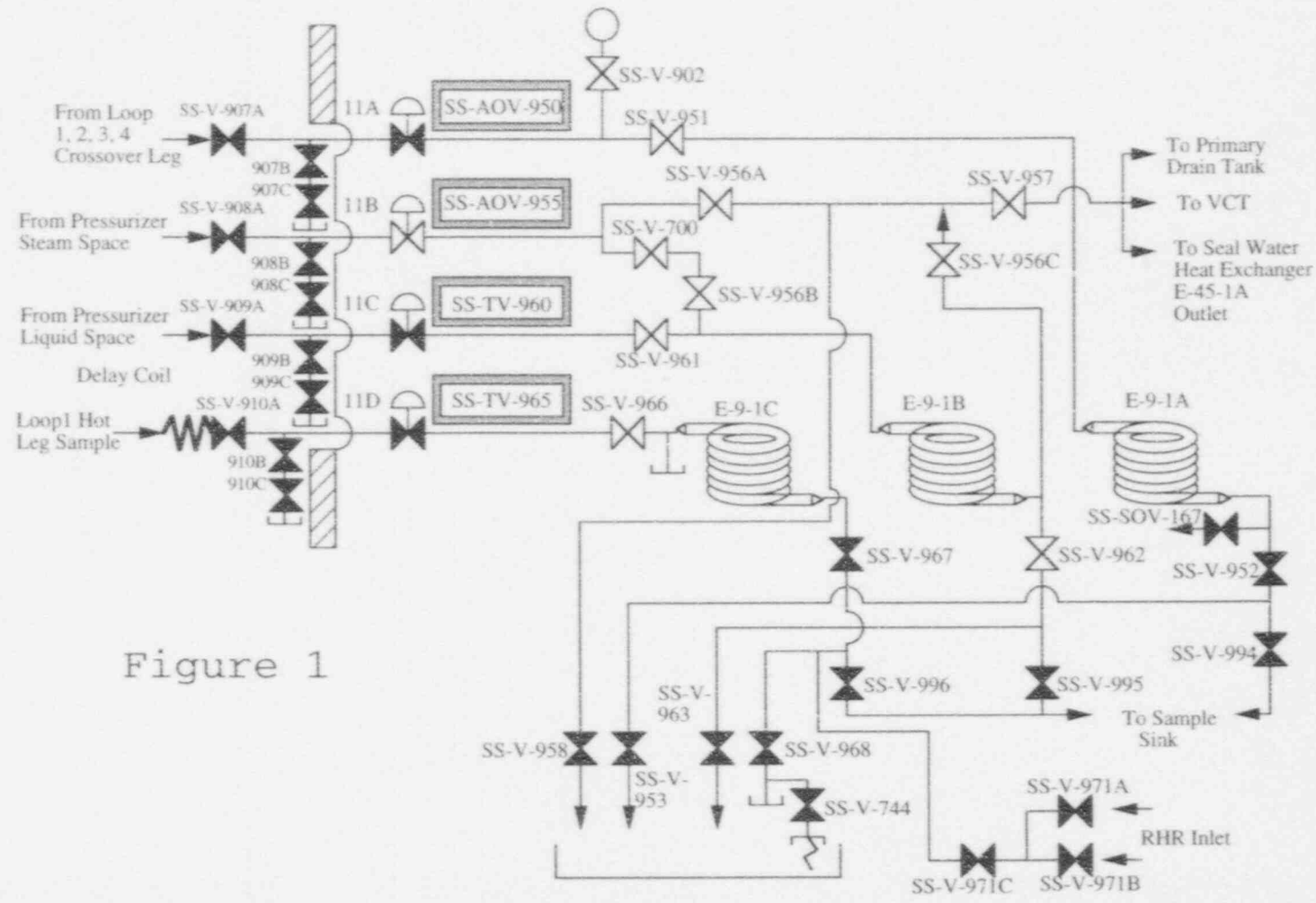


Figure 1