CONNECTICUT YANKEE ATOMIC POWER COMPANY

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

August 25, 1994
Re: 10CFR50.73(a)(2)(ii)

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 50-213/94-020-00

Gentlemen:

This letter forwards the Licensee Event Report 94-020-00, required to be submitted, pursuant to the requirements of the Haddam Neck Plant's Technical Specifications.

Very truly yours,

Jere J. LaPlatney
Vice President

JPS/mlg

Attachment: LER 50-213/94-020-00

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

William Raymond
Sr. Resident Inspector
Haddam Neck

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1026-3 REV 2-91

NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/88

LICENSEE EVENT REPORT (LER)

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TITLE (4)

RCP Motor Platforms Determined to be Non-Seismic

EVENT DATE (5)			LER NUMBER (6)				REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR		SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES	DOCKET NUMBER(S)
											0 5 0 0 0
0 7	2 9	9 4	9 4	—	0 2 0	— 0 0	0 8	2 5	9 4		0 5 0 0 0

OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
5		20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10)		20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
0 0 0		20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
		20.405(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
		20.405(a)(1)(iv)	X 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	TELEPHONE NUMBER
	AREA CODE
J. Mawson, Engineering, Design	2 0 3 2 6 7 - 2 5 5 6

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

CAUSE	SYSTEM	COMPONENT	MANUFAC TURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFAC TURER	REPORTABLE TO NPRDS	

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO				

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

ABSTRACT

On July 20, 1994, with the plant in Mode 5 (cold shutdown), a review of the reactor coolant pump (RCP) motor oil lift system (LER 94-019-00) identified a potential unanalyzed seismic condition between the upper RCP platforms and the seismically qualified RCP motor lube oil system. On July 29, 1994, at 1434 hours, with the plant in Mode 5, an engineering review, based upon observations made during previous walkdowns, determined that the collapse of the RCP upper level platforms during a seismic event could potentially affect equipment that is required to either maintain their structural integrity or function during and following a seismic event. The cause of this condition was program failure in that the upper platforms were not reviewed for seismic interaction. Seismic interaction was not an original design basis for Haddam Neck. Corrective action consisted of removing the grating from the platforms and connecting the platforms with cable to existing RCP supports. A walkdown of miscellaneous platforms in the containment building and other areas containing safety related equipment was conducted and no similar problems were identified. This event is reportable under 10CFR50.73(a)(2)(ii)(A) since it resulted in an unanalyzed condition.

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

BACKGROUND INFORMATION

The Haddam Neck plant Updated Final Safety Analysis Report, Table 3.2-1, states that "the interconnecting piping and valves required to perform recirculation function" for the safety injection system are Category I equipment. Additionally, the lubrication system for the reactor coolant pumps (RCP)(EIIS Code: P) are required to remain functional during and after seismic events. Seismic interaction was not an original design basis for Haddam Neck. However, seismic interaction was a consideration established by the SEP program and was subsequently identified as an issue to be addressed in USI A46. Haddam Neck has completed its USI A46 review and is in the process of resolving any identified issues.

EVENT DESCRIPTION

On July 20, 1994, with the plant in Mode 5 (cold shutdown), a review of the RCP motor oil lift system identified a potential unanalyzed seismic condition between the upper RCP platforms and the seismically qualified RCP motor lube oil system. On July 29, 1994, at 1434 hours, with the plant in Mode 5 an engineering review, based upon observations made during previous walkdowns, determined that the collapse of the reactor coolant pump (RCP) upper level platforms during a seismic event could potentially affect equipment that is required to either maintain their structural integrity or function during and following a seismic event.

CAUSE OF THE EVENT

Documentation on the seismic design of the upper platforms could not be readily located, therefore a conservative assumption was made that the platforms, as they currently existed, were not seismically qualified. The cause of this condition was program failure in that the upper platforms were not reviewed for seismic interaction.

Although not a design basis requirement, the upper platforms should have been reviewed for seismic interaction at the time the RCP oil system was determined to be seismically qualified.

SAFETY ASSESSMENT

This event is reportable under 10CFR50.73(a)(2)(ii)(A) since it resulted in an unanalyzed condition.

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

The failure of the upper level platforms around each reactor coolant pump (RCP) during a seismic event could have potentially affected steam generator level indication instrumentation tubing and the upper oil level indication switch. Therefore, during a seismic event, steam generator level indication could become inoperable. The potential failure of the oil level indication switch on the RCP lube oil system could result in an erroneous level indication, no indication at all or possibly a breach of the lube oil system.

The failure of the platforms around RCPs No. 2 and No. 4 potentially could result in damage to the RHR-MOV-804 wiring and SI-MOV 861B & D conduit (control wiring). SI-MOV-861 B and D are 2 of 4 high pressure safety injection valves (one per loop) which are normally closed and automatically open upon receipt of a safety injection actuation signal (SIAS). During a seismic event these valves could possibly become inoperable. Since the initiating event is a seismic event , safety injection is not required. The loss of RHR-MOV-804 at power during a seismic event is insignificant since the valve is normally closed during power operation. This valve is opened during Modes 5 and 6 for alignment of the residual heat removal system. If RHR-MOV-804 were damaged in a seismic event, an alternate residual heat removal flow path would be used.

The collapse of the upper platform around RCP No. 3 potentially results in damage to the reactor coolant system MOVs (cold leg stop valves and loop bypass valves). The size of the platforms are such that they would not likely damage the valves but could potentially create a small leak in any of the bypass vent lines. This leak would be within the makeup capability of the charging system.

Based upon the discussion above, the overall safety significance of this event is low.

CORRECTIVE ACTION

Corrective action consisted of removing the grating on the upper platforms around each of the four RCPs, thereby reducing the dead weight load of the platform, thus diminishing the potential for damaging effects from failure of the platforms. In addition, the platforms were tied off with cable to existing RCP supports, limiting the movement of the walkway during a seismic event. These modifications along with the installation of enclosures and/or deflective shields, as part of the redesign of the RCP oil collection system, will ensure that there is no impact on safety related equipment due to failure of the upper platform during a seismic event. A walkdown of miscellaneous platforms in the

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

containment building and other areas containing safety related equipment was conducted and no similar problems were identified. Long term corrective action consists of evaluating modifications to the upper platforms during the next refueling outage.

As a conservative measure grating f[illegible]s were installed in containment on those platforms found [illegible]ave unsecured grating. In addition, a review of other areas in containment (fabricated ladders, cages, tool boxes, etc.), where a potential for equipment interaction could occur, was conducted and appropriate action was taken to secure the structures.

Currently, designs and design changes are revi[illegible]nd documented much more extensively than had been done durin[illegible] periods in which the original oil collection system and the platforms were installed.

ADDITIONAL INFORMATION

None.

PREVIOUS SIMILAR EVENTS

None.