

NORTHEAST UTILITIES



THE CONNECTICUT LIGHT AND POWER COMPANY
WESTERN MASSACHUSETTS ELECTRIC COMPANY
HOLYOKE WATER POWER COMPANY
NORTHEAST UTILITIES SERVICE COMPANY
NORTHEAST NUCLEAR ENERGY COMPANY

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February 8, 1994

Docket No. 50-423
B14726

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

Gentlemen:

Millstone Nuclear Power Station, Unit No. 3
Safety System Functional Inspection of the Auxiliary Feedwater System

In a Northeast Nuclear Energy Company (NNECO) letter dated February 28, 1992,⁽¹⁾ the NRC Staff was informed of our decision to assess the operational readiness of a selected safety system to function under operational and analyzed accident conditions at Millstone Unit No. 3. The auxiliary feedwater system (AFW) was chosen to be the subject of the in-house safety system functional inspection (SSFI). The in-house SSFI was performed during the period from May 5, 1992, through June 17, 1992.

In a submittal dated July 30, 1993,⁽²⁾ NNECO summarized the findings and the actions that were underway to address the results of the Millstone Unit No. 3 in-house AFW SSFI. NNECO identified that 68 of the 90 observations had resolutions proposed and accepted by the SSFI team, that six of the observations had been withdrawn, and that 16 of the observations remained open. This information was summarized in a table. For those observations that remained open, NNECO stated that the observations were expected to be resolved by December 30, 1993. The purpose of this submittal is to inform the NRC Staff of the status of the 16 observations that remained open.

Five of the 16 observations have had resolutions proposed and accepted by the SSFI team. The remaining observations require additional analysis. Attachment 1 provides a current listing of the Millstone Unit No. 3 AFW SSFI findings, including scheduled completion dates for those observations that remain open.

In the submittal dated July 30, 1993, NNECO informed the NRC Staff of the status of an Operability/Reportability Evaluation regarding the demineralized water storage tank (DWST) sizing issue. In the submittal, NNECO stated that it had "reasonable expectations that the system is operable." An operability

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- (1) J. F. Opeka letter to U.S. Nuclear Regulatory Commission, "Safety System Functional Inspection," dated February 28, 1992.
 - (2) J. F. Opeka letter to the U.S. Nuclear Regulatory Commission, "Safety System Functional Inspection of the Auxiliary Feedwater System," dated July 30, 1993.

evaluation has been completed which concluded that the applicable systems are operable. It was determined that normal shutdown and accident mitigation remained achievable. Also, the accident analyses presented in Chapter 15 of the Millstone Unit No. 3 Final Safety Analysis Report (FSAR) were not impacted by the DWST sizing issue.

The July 30, 1993, submittal also discussed two potential programmatic issues (calculational assumptions and potential FSAR discrepancies). The following actions were taken regarding the programmatic issue dealing with calculational assumptions: (1) A review of Nuclear Engineering and Operations (NEO) Procedure 5.06, "Design Analyses and Calculations," was performed to determine if any changes were appropriate; (2) previous SSFIs and Electrical Distribution System Functional Inspections were reviewed to determine the breadth of this issue; and (3) a review of selected Stone and Webster calculations was performed. This review discovered minor inconsistencies. These inconsistencies did not change the results of any of the calculations, nor were they determined to be safety significant. Because no significant errors were discovered, a complete review of design calculations was not recommended. An additional action that will improve the accuracy and consistency of the Millstone Unit No. 3 calculational assumptions is the Design Basis Reconstruction effort. When issued, the Design Basis Documents will provide the design basis information regarding various systems in a consolidated format. Also, the Design Basis Reconstruction effort provides an opportunity to identify inconsistencies in calculations, since design basis information is located in numerous documents, including calculations.

Regarding the programmatic issue dealing with potential FSAR deficiencies, NNECO had previously committed to take corrective actions concerning prompt FSAR updating in a submittal dated March 22, 1993.⁽³⁾ In a submittal dated October 29, 1993,⁽⁴⁾ NNECO informed the NRC Staff that a revision to NEO 3.03, "Plant Design Change Records (PDCRs)," had been issued on September 20, 1993, which included a requirement for timely PDCR closeouts and initiation of FSAR changes. Also, in a submittal dated April 10, 1992,⁽⁵⁾ NNECO committed to revise NEO 5.06 by including a step in the calculation checklist to determine whether calculation results affected the FSAR. A procedure action request has been initiated regarding this commitment. NNECO believes that these actions will enhance the FSAR updating process in addition to reinforcing the engineering disciplines' responsibility for maintaining an

(3) J. F. Opeka letter to U.S. Nuclear Regulatory Commission, "Reply to a Notice of Violation, Inspection Report Nos. 50-245/92-29; 50-336/92-31; 50-423/92-28," dated March 22, 1993.

(4) J. F. Opeka letter to the U.S. Nuclear Regulatory Commission, "Millstone Nuclear Power Station, Unit No. 3, Addendum to Revision 7 to the Updated Final Safety Analysis Report," dated October 29, 1993.

(5) J. F. Opeka letter to the U.S. Nuclear Regulatory Commission, "Reply to a Notice of Violation, Inspection Report No. 50-423/91-27," dated April 10, 1992.

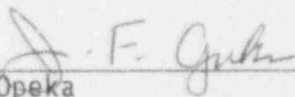
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accurate and consistent FSAR. An additional action, which will improve the accuracy and consistency of the Millstone Unit No. 3 FSAR, is the review of the FSAR conducted as part of the ongoing Design Basis Reconstruction effort.

If you should have any questions concerning the attached information, please contact my staff.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY



J. F. Opeka
Executive Vice President

cc: T. T. Martin, Region I Administrator
V. L. Rooney, NRC Project Manager, Millstone Unit No. 3
P. D. Swetland, Senior Resident Inspector, Millstone Unit Nos. 1, 2,
and 3

Attachment 1

Millstone Nuclear Power Station, Unit No. 3

Safety System Functional Inspection of the Auxiliary Feedwater System
Results Summary

February 1994

Millstone Unit No. 3
1992 Safety System Functional Inspection

OBSERVATION LOG

No. Rev.	Issue	Status Open/Closed	Notes
1.	Use of "LCL" and "LC"	Closed	
2.	Procedure change format	Closed	
3.	Changes to Proc. through biennial	Closed	
4.	Human factors on MB-5	Closed	
5.	Steam leaks on AFW stm supply	Closed	
6.	MSS*AOV31D leakage	Closed	
7.	B/D train AFW check valves leaking	Closed	
8.	Increasing leakage into containment	Closed	Withdrawn
9.	One rusty nut on DWST man-way cover	Closed	
10.	MSS to TDAFP not isolable	Closed	
11.	AWO M3-90-22776 is 17 mo. old	Closed	
12.	AFW pumps not lubricated per OP3322	Closed	
13.	Alternate surveillance lineup	Closed	
14.	Design basis discrepancy DWST	Closed	
15.	Vent valves w/drilled caps	Closed	
16.	Terry Turbine oil heat-up time	Closed	
17.	Recommended pump inspection not done	Closed	
18.	Pipe nipple installed w/o PDCR	Closed	
19.	Drawing discrepancies	Closed	
20.	No FSAR CR for PDCR MP3-91-216	Closed	Withdrawn
21.	Sizing of DWST heater	Closed	
22.	TR tag not removed	Closed	
23.	Retest sign-off	Closed	
24.	Emergency light in TDAFW pump room	Closed	
25.	Incomplete TS Ref. Sect. in SPs	Closed	
26.	FWA*V7 studs do not penetrate nuts	Closed	
27.	Minor housekeeping concerns	Closed	
28.	Steam leak through AFW*P2	Closed	
29.	PDCR MP-3-91-216 incorrect inputs	Closed	
30.	Discrepancy in (W) curves	Open	DWST Sizing Issue TO BE COMPLETED BY 7/31/94
31.R1	Safety grade cold shutdown capability	CLOSED	DWST Sizing Issue
32.	Additional DWST volume for RCP Oper.	Open	DWST Sizing Issue TO BE COMPLETED BY 7/31/94

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No. Rev.	Issue	Status Open/Closed	Notes
33.	High O ₂ in DWST	Closed	
34.	Tech Spec Operability of AFW System	CLOSED	DWST Sizing Issue
35.	Minor documentation errors	Closed	
36.	DWST heater pump calc. wrong ref.	Closed	
37.	AFW valves not per as-built isometric	Closed	
38.	Inappropriate reference in PRA study	CLOSED	DWST Sizing Issue
39.	DWST sizing calc. errors	Closed	
40.	Seismic qual. of temp. heater	Closed	
41.	Extension cord to heat tracing	Closed	
42.R2	Programmatic: DWST sizing	Open	DWST Sizing Issue TO BE COMPLETED BY 7/31/94
43.	New field welds not hydro tested	Closed	Withdrawn
44.	CST tank heater sizing	Closed	
45.	Severe Weather Procedure	Closed	
46.	Surveillance Proc. vs. FSAR on CST	Open	DWST Sizing Issue TO BE COMPLETED BY 7/31/94
47.	Drawing discrepancies	Closed	
48.	S/G Blowdown valve failure scenario	Closed	
49.R1	ACP-QA-2.06B Violation - AFP suction	Closed	
50.	"Available vol." in CST for Tech Spec	Open	DWST Sizing Issue TO BE COMPLETED BY 7/31/94
51.	Elev. 4'6" door weather stripping	Open	TO BE COMPLETED BY 7/31/94
52.	Reliability analysis requirements	Closed	
53.	AFW limiting conditions vs. ISI	Closed	
54.	FSAR 10.4.9 Design Basis	Closed	
55.	AFW Pumps minimum flow capacity	CLOSED	Tracking only (NRC Bulletin 88-04)
56.	AMI Action Items - DWST LL level alarm	Closed	
57.	PMR Prioritizing	Closed	
58.	Jumper/Bypass w/o safety evaluation	Closed	
59.	Inadequate surveillance testing	Closed	
60.	DWST Licensing basis	Open	Part of #42, tracking only TO BE COMPLETED BY 7/31/94
61.	Drain of condensate prior to test run	Closed	
62.	SS cap on CS pipe	Closed	
63.	HVAC Unit 3HVQ-ACU-3	Closed	

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No. Rev.	Issue	Status Open/Closed	Notes
64.	Procedure MP 3740DA deficiencies	Closed	
65.	Stock Codes listed in Maintenance Procedure	Closed	
66.	Position indicators on AOV-065	Closed	
67.	AOV-065 outlet piping to drain/floor	Closed	Withdrawn
68.	Ability to rig AFW pumps/motors	Closed	
69.	Continuous leaking oil on 3FWA*P1A&B	Closed	
70.	No pipe cap on 3FWA*V971	Closed	
71.	No inspection for oil levels	Closed	Withdrawn
72.	Steam trap PA 79-239 not done	Closed	
73.R1	Hazards analysis of AFW System	Open	TO BE COMPLETED BY 7/31/94
74.	High energy pipe break in AFW System	Open	TO BE COMPLETED BY 7/31/94
75.	DWST & CST vol. in APP "R" analysis	Open	DWST Sizing Issue TO BE COMPLETED BY 7/31/94
76.	Typo in App "R" Report	Closed	
77.	AFW Operational time	Closed	
78.	FSAR typo	Closed	
79.	Calc. of TDAFP steam flow	Closed	
80.	Piping as-built drawing discrepancies	Closed	
81.R1	P&ID drawing discrepancies	Closed	
82.	AFW Rel. anal. missing in FSAR	Closed	
83.	CST freezing calculation	Closed	
84.	Emer. vent. AFW Pump cubicle	Closed	
85.	DCN not initiated for PDCR change	Closed	
86.	Inadequate root cause eval.	Closed	
87.	P&ID drawing discrepancies	Closed	Withdrawn
88.	*V971 not on Iso C.I.-FWA-2	Closed	
89.	Programmatic: Calculation assumptions	CLOSED	Programmatic
90.	Programmatic: FSAR consistency	Open	Programmatic TO BE COMPLETED BY 7/31/94