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NORTHEAST UTILITIES

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

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September 28, 1979

Docket No. 50-245

Mr. Boyce H. Grier, Director
Region I
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, PA 19406

References: (1) W. G. Counsil letter to B. H. Grier dated August 1, 1979.
(2) W. G. Counsil letter to B. H. Grier dated August 31, 1979.

Gentlemen:

Millstone Nuclear Power Station, Unit No. 1
Seismic Analysis for As-Built Safety-Related Piping Systems

I&E Bulletin No. 79-14 requested Northeast Nuclear Energy Company (NNECO) to initiate a program to verify the accuracy of input information for the seismic analysis of safety-related piping. NNECO's 30-day response and 60-day response were submitted in References (1) and (2). This letter is an update of Reference (2); it addresses progress to-date in normally accessible areas; provides the results of these inspections; and reaffirms NNECO's schedule for completing the remaining work required by I&E Bulletin No. 79-14.

As previously outlined in the 60-day submittal, the inspection program of seismic Category I piping systems is continuing as required by I&E Bulletin No. 79-14. At present, twenty-one piping systems are included in the investigations and for seventeen of these systems, the accessible portions of piping have been or will shortly be completely verified. The remaining four systems are classified as inaccessible, during normal operation.

It is projected that walkdowns of all accessible portions of seismic piping systems presently under investigation will be completed, with the final report on walkdowns available by October 31, 1979. This represents approximately a 30-day slip in the schedule outlined in Reference (2). This extension is due in large part to two (2) items. First, the detailed review of the material, parts and equipment list and its comparison to the original seismic stress reports has caused changes in the project scope and additions to the total amounts of pipe anticipated to be verified. The largest effect has been the differences between the seismic isolation boundary (valve in most cases) and the analytical boundary (anchor). Secondly, the lack of piping isometrics in plant record files has required large sections of piping to be drawn up in the field, thus, reducing the productivity of inspection crews.

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A total of 9,000 linear feet of seismic Category I piping and 667 associated supports have been verified to date. This compares with 4,500 linear feet and 350 supports reported in the previous 60-day submittal. Some inaccessible areas in the turbine building (condenser bay area) have been surveyed during a short maintenance shutdown, which occurred in September. The total quantity of piping surveyed as of September 24, 1979, is as follows:

- Reactor Building Closed Cooling Water

Linear feet of pipe surveyed:	1200	(1200)*
Hangers & restraints verified:	91	(91)

- Standby Liquid Control (accessible portions completed)

Linear feet of pipe surveyed	275	(175)
Hangers & restraints verified	30	(30)

- Service Water (accessible and inaccessible portions complete)

Linear feet of pipe surveyed:	Accessible	1120	(950)
	Inaccessible	140	(0)
Hangers & restraints verified:	Accessible	80	(36)
	Inaccessible	4	(0)

- Isolation Condenser (accessible portion completed)

Linear feet of pipe surveyed:	500	(500)
Hanger & restraints verified:	48	(41)

- Standby Gas Treatment (accessible portions complete)

Linear feet of pipe surveyed:	550	(285)
Hangers & restraints verified:	40	(30)

- Spent Fuel Pool Cooling

Linear feet of pipe surveyed:	246	(246)
Hangers & restraints surveyed:	75	(21)

- Condensate

Linear feet of pipe surveyed:	Accessible	700	(525)
	Inaccessible	100	(0)
Hangers & restraints verified:	Accessible	52	(44)
	Inaccessible	7	(0)

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* Number in ( ) represents data reported for 60-day submittal.

- Shutdown Cooling (accessible portions complete)

Linear feet of pipe surveyed:	600	(0)
Hangers & restraints verified:	55	(0)

- Core Spray/LPSI/Containment Cooling

Linear feet of pipe surveyed:	700	(0)
Hangers & restraints verified:	75	(0)

- Secondary Cooling System

Linear feet of pipe surveyed:	991	(0)
Hangers & restraints verified:	55	(0)

- Feedwater (accessible portions complete)

Linear feet of pipe surveyed:	545	(0)
Hangers & restraints verified:	42	(0)

- Control Rod Drive

Linear feet of pipe surveyed:	15	(0)
Hangers & restraints verified:	0	(0)

- Radwaste (system complete)

Linear feet of pipe surveyed:	77	(0)
Hangers & restraints verified:	9	(0)

- Atmospheric Control (accessible portions complete)

Linear feet of pipe surveyed:	660	(0)
Hangers & restraints verified:	39	(0)

- Fire/Domestic Condensate Transfer and Storage (accessible portions complete)

Linear feet of pipe surveyed:	418	(0)
Hangers & restraints verified:	28	(0)

- Primary Containment Cooling Service Water (accessible portions complete)

Linear feet of pipe surveyed:	370	(0)
Hangers & restraints verified:	18	(0)

The following systems are considered completely inaccessible at this time.

Reactor Head Cooling
Nuclear Boiler
Reactor Recirculation
Main/Extraction/Auxiliary Steam

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Presently, a total of sixteen completed walkdown packages have been forwarded to NNECO's architect engineering firm for review and comparison to original stress analyses. The systems represented by these packages are as follows:

	Accessible Portions Completed	Inaccessible Portions Completed
Standby Liquid Control	Yes	
Reactor Building Closed Cooling Water		
Isolation Condenser	Yes	
Shutdown Cooling	Yes	
Fuel Pool Cooling		
Condensate		
Service Water Intake Structure	Yes	Yes
Atmospheric Control	Yes	
Standby Gas Treatment	Yes	
Feedwater		
Radwaste	Yes	Yes

It should be noted that even though a particular system may have all accessible portions walked down, it may not be possible to completely review the stress analysis because portions of a problem area are inaccessible. It is anticipated that system stress reviews based on walkdown packages will be completed within the bulletin guidelines: 30 days after the initial engineering judgment on system operability.

Preliminary site engineering reviews and stress analysis reviews accomplished by NNECO's architect engineering firm have not uncovered any deviations which would affect safe operation of the plant. Although reanalysis to prove the validity of the engineering judgments are presently underway, the evaluation of each deviation will be conducted and upon final analytical review, the results will be forwarded to the NRC.

Based on, (1) the high degree of confidence developed during the inspections that have been completed to-date, and (2) the system work performed inside the drywell, as delineated in the previous 60-day submittal, NNECO reaffirms the conclusion that shutdown and inspection of inaccessible areas may be postponed until the 1980 refueling outage. Preparations are underway to prepare to the maximum extent possible to conduct the remaining surveys in an expeditious and accurate manner.

Any unplanned shutdowns which may occur due to maintenance problems will be used to complete as much of the inaccessible areas as possible. Since the discrepancies found to-date have not been significant and levels of confidence for inspections in the inaccessible areas remain high, as outlined in Reference (2), this is the most expeditious and advantageous approach available to NNECO. We will make a follow-up submittal to include the results of all accessible areas and the inaccessible areas where possible, at an expected completion date at the end of October, 1979.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

W. G. Counsil

W. G. Counsil
Vice President

W. F. Fee

BY: W. F. Fee
Vice President

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