

**NORTHEAST UTILITIES**

THE CONNECTICUT LIGHT AND POWER COMPANY  
WESTERN MASSACHUSETTS ELECTRIC COMPANY  
HARTFORD WATER EWER COMPANY  
NORTHEAST UTILITIES HOLDING COMPANY  
NORTHEAST NUCLEAR ENERGY COMPANY

General Offices • Seiden Street, Berlin, Connecticut

P.O. BOX 270  
HARTFORD, CONNECTICUT 06141-0270  
(203) 665-5000

August 30, 1991

Docket No. 50-423

B13997

Re: Inspection Report  
No. 50-423/90-80

Mr. T. T. Martin  
Regional Administrator, Region I  
U.S. Nuclear Regulatory Commission  
475 Allendale Road  
King of Prussia, PA 19406

Dear Mr. Martin:

Millstone Nuclear Power Station, Unit No. 3  
Inspection Report No. 50-423/90-80  
EOP Upgrade Project Status

In a letter dated August 7, 1990, <sup>(1)</sup> the NRC transmitted the results of their team inspection of the emergency operating procedures (EOPs) conducted at Millstone Unit No. 3 from April 16 to April 25, 1990. On October 4, 1990, <sup>(2)</sup> Northeast Nuclear Energy Company (NNECO) responded to the comments identified in Attachment 3 of Inspection Report No. 50-423/90-80 and provided the Staff with information on the EOP upgrade project and proposed schedule for project completion.

The purpose of this letter is to update the Staff on the status of the EOP upgrade project and provide a revised schedule for project completion. The Millstone Unit No. 3 upgrade project has been ongoing since May 1990. To date, all EOPs and abnormal operating procedures (AOPs) have been processed through Phase I. This process involved an initial technical review and incorporation of comments gathered from both internal and external audits. Phase I also includes a total reformatting of each procedure to ensure compliance with the recently revised EOP Writer's Guide and the current standards for incorporating human factors into procedures. Phase II, currently in progress, consists of the multidisciplinary process of evaluation verifications, engineering reviews, simulator and local validations, PORC reviews, operator training, and, following their distribution for use, the completion of the step deviation justification documents.

- (1) R. M. Gallo letter to E. J. Mroczka, Inspection No. 50-423/90-80, dated August 7, 1990.
- (2) E. J. Mroczka letter to T. T. Martin, Response to Comments Identified in Inspection Report 50-423/90-80, dated October 4, 1990.

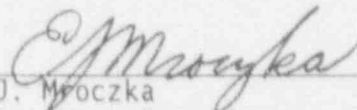
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Attachment 1 provides the current overall status of the EOP upgrade project. Attachment 2 contains the status of the four items identified as weaknesses during NRC EOP Inspection No. 50-423/90-80. Attachment 3 provides information on the delays encountered in completing the EOP upgrade as well as anticipated obstacles during 1992. A reevaluation of the project status has determined that all Westinghouse ERG derived EOPs will be upgraded and distributed for use by December 31, 1991, however, the original target date for overall completion of the EOP upgrade project is unattainable based on the information provided in Attachment 3. It is therefore necessary to revise the completion date for the upgrade process of all EOP network procedures in order to continue the quality program which is currently in progress. NNECO anticipates project completion by October 31, 1992.

We trust the Staff finds this information acceptable. Should you have any questions, please contact my Staff.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

  
E. J. Mroczka  
Senior Vice President

cc: D. H. Jaffe, NRC Project Manager, Millstone Unit Nos. 1 and 3  
W. J. Raymond, Senior Resident Inspector, Millstone Unit Nos. 1, 2, and 3  
L. H. Bettenhausen, Chief, Operations Branch, Division of Reactor Safety

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

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Attachment 1

EOP Upgrade Project Status

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EOP Upgrade Project Status

Status of Westinghouse ERG based EOP upgrades

	<u>Process</u>	<u>% Complete</u>
Phase I		
	Technical	100%
	Editor	100%
Phase II		
	Evaluator Verifications	100%
	Engineering Reviews	70%
	Simulator Validations	79%
	Local Validations	85%
	Training in progress or completed	47%

Status of Abnormal Operating Procedure upgrades

	<u>Process</u>	<u>% Complete</u>
Phase I		
	Technical	100%
	Editor	87%
Phase II		
	Evaluator Verifications	68%
	Engineering Reviews	26%
	Simulator Validations	19%
	Local Validations	60%
	Training in progress of completed	0%

Status of system procedures referenced by the EOP Network upgrades

	<u>Process</u>	<u>% Complete</u>
Phase I		
	Technical	0%
	Editor	0%
Phase II		
	Evaluator Verifications	0%
	Engineering Reviews	0%
	Simulator Validations	0%
	Local Validations	0%
	Training in progress or completed	0%

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Attachment 2

Current Status of EOP Inspection Items

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Current Status of EOP Inspection Items

1. Item #90-80-01:

Following review and revision of the EOPs, correct deviation document errors and more fully document deviation justifications.

Response:

The step deviation documents are being developed and reviewed as an integral part of the procedure process. The Westinghouse ERG steps for all of the procedures have been entered into the new Millstone Unit No. 3 computerized EOP Integrated Management System. The justification of differences for each upgraded procedure currently in effect has been prepared and is available for use. As each procedure upgrade is completed and the procedure distributed, the development of its step deviation document is completed and made available.

2. Item #90-80-02:

Identify labeling versus EOP procedure discrepancies. Evaluate and identify actions to resolve discrepancies.

Response:

The EOP Writer's Guide and EOP User's Guide have both been revised to specifically address this situation. The use of generic wording throughout the EOP network for procedure steps, component names, action verbs, acronyms, special phases, etc., has mitigated the possibility of this problem recurring. Additionally, the training department was requested to be particularly sensitive during operator training to items which have caused confusion as a result of labeling. If an item appears to cause confusion, the instructors immediately provide feedback to the EOP coordinator.

3. Item #90-80-03:

Review deficiencies identified during NRC walkdowns.

Response:

All deficiencies identified during NRC walkdowns have been evaluated and dispositioned.

4. Item #90-80-04:

Further evaluate improved system for control and revision of EOPs.

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Response:

The development of a custom computerized EOP Integrated Management System which can be used to develop, upgrade, publish, track, and maintain the EOP network procedures is complete. All EOPs, ERGs, and the step deviation documents (including the justifications for those procedures that have completed the upgrade process) currently reside in the system. Automated setpoint changes, locating of specific steps, searches for specific information, and graphics incorporation are a few of the system's current capabilities.

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Attachment 3

Factors Contributing to Revised Completion Schedule

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Factors Contributing to Revised Completion Schedule

The extremely complex upgrade process and increased operator awareness and participation has generated a greater than expected volume of comments and recommendations, each of which require evaluation, resolution and possible incorporation into the applicable EOP network procedures. Many of the comments received were applicable to other procedures, therefore requiring modifications to several procedures due to the generic nature of the steps throughout the network:

Factors contributing to the need to revise the completion schedule include the following:

1. The design and development of the Emergency Operating Procedure Integrated Management System and customizing of station computer system hardware and software to incorporate the operation of the system required a significant effort. In addition, word processing and entering of the EOPs, AOPs, ERGs, and data pertaining to their associated format, layout, and setpoint catalogs required more time than budgeted.
2. Engineering Reviews during 1990 fell behind schedule (only 52% of the procedures sent to Engineering between May and December 1990 received an Engineering Review) resulting in delays of simulator validations, comment resolutions, and upgrade completions.
3. A much greater than anticipated volume of review comments, suggestions, and recommendations resulted in additional time being spent for evaluations and modifications to numerous procedures in the network.
4. Millstone Unit No. 3 Refueling Outage 3 required more resources than originally anticipated:
  - o Unable to perform Evaluator Verifications and Simulator Validations while Shifts were in four section rotation prior to the outage.
  - o Outage extended approximately three weeks beyond original completion date.
  - o EOP Upgrade Project Personnel were temporarily reassigned responsibility for delivering training on the newly upgraded procedure for RCS reduced inventory operation.
5. Plant Design Changes required prompt changes and revisions to the new and existing EOP Network procedures:
  - o Cycle 4 fuel design
  - o Containment atmospheric pressure changes
  - o Setpoint changes as a result of the removal of pressurizer level instrument condensate pots.

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In looking forward to 1992, NNECO anticipates several major factors contributing to the extended completion schedule including:

1. A mid-cycle plant shutdown (approximately 30 days) is scheduled for early 1992.
2. One six week cycle (6th) of 1991 Requalification Training is not available for procedure upgrade training as the simulator and its staff are administering the annual requalification examinations to all licensed operators.
3. One six-week cycle of 1992 Requalification Training is not available for procedure upgrade training as the operators perform their required annual fire brigade training at an out-of-state facility.
4. An in-depth review and recalculation of all Millstone Unit No. 3 EOP setpoints (nearing completion) is anticipated to require a significant updating of the EOP network procedures.