

March 31, 2000

Mr. Stephen E. Scace, Director  
Nuclear Oversight and Regulatory Affairs  
Northeast Nuclear Energy Company  
P.O. Box 128  
Waterford, Connecticut 06385

SUBJECT: PLANT PERFORMANCE REVIEW - MILLSTONE UNIT 2

The purpose of this letter is to communicate our assessment of your performance and to inform you of our planned inspections at your facility. On February 24, 2000, we completed a Plant Performance Review (PPR) of Millstone Unit 2. We conduct these reviews to develop an integrated overview of the safety performance of each operating nuclear power plant. We use the results of the PPR in planning and allocating inspection resources and as inputs to our senior management meeting (SMM) process. This PPR evaluated inspection results and safety performance information for the period from January 16, 1999, through January 31, 2000, but emphasized the last six months to ensure that our assessment reflected your current performance. Our last full and mid-cycle PPR reviews of Millstone Unit 2 were provided to you in letters dated April 9, 1999, and September 30, 1999, respectively.

The NRC has been developing a revised reactor oversight process that will replace our existing inspection and assessment processes, including the PPR, the SMM, and the Systematic Assessment of Licensee Performance (SALP). We recently completed a pilot program for the revised reactor oversight process at nine participating sites and are making necessary adjustments based on feedback and lessons learned. We plan to begin initial implementation of the revised reactor oversight process industry-wide on April 2, 2000.

This PPR reflects continued NRC process improvements as we make the transition into the revised reactor oversight process. You will notice that the following summary of plant performance is organized differently from our previous performance summaries. Instead of characterizing our assessment results by SALP functional area, we are organizing the results into the strategic performance areas embodied in the revised reactor oversight process. In addition, we have considered the historical performance indicator data that you submitted in January 2000, in conjunction with the inspection results, in assessing your performance. The results of this PPR were used to establish the inspection plan in accordance with the new risk-informed inspection program (consisting of baseline and supplemental inspections). Although this letter incorporates some terms and concepts associated with the new oversight process, it does not reflect the much broader changes in inspection and assessment that will be evident after we have fully implemented our revised reactor oversight process.

Millstone Unit 2 resumed power operation on May 9, 1999, after a shutdown of about three years. During the last six months of this assessment period, Millstone Unit 2 remained at power with the exception of two manual reactor trips and one forced shutdown caused by equipment problems.

We have not identified any significant performance issues during this assessment period in any of the three strategic performance areas (reactor safety, radiation safety and safeguards) and note that Millstone Unit 2 continues to operate in a safe manner. Therefore, we currently plan to conduct only our normal baseline inspections at your facility as noted in the attached inspection plan.

While many equipment problems were identified and corrected during the extended outage, some longstanding and recurrent issues continue to challenge operators. In several instances engineering resolutions of these equipment problems were not fully effective. This resulted in degraded or inoperable safety equipment and caused two transients that led to manual reactor trips. In some cases, you have had to refocus engineering resources on resolving recurring problems with aging electronic equipment such as the reactor protection system and rod control system. The plant staff has placed appropriate focus on the continuing challenge that the large maintenance, engineering and corrective action backlogs represent to reduce the number of equipment problems. We will monitor your progress in response to these issues during our baseline inspections.

The corrective action process has been adequately implemented and continues to be a low-threshold and a high volume system. The NRC identified several instances in which the plant staff failed to initiate condition reports for safety equipment that was degraded. Notwithstanding these instances, a recent team inspection found that the problem with condition report initiation was not pervasive.

A generally healthy safety conscious work environment existed at Millstone. The station had appropriate programs and processes established to address employee concerns and to monitor and evaluate the safety conscious work environment. Site employees were familiar with programs and processes for handling concerns, and they were willing to raise nuclear safety concerns. Challenges to a safety conscious work environment remained due to the impending sale of the plant and planned reductions in contractor and staff positions. The NRC will continue to monitor the safety conscious work environment at Millstone, including the review of the findings from the future Little Harbor Consultant reports, to determine if further NRC inspection in this area is warranted.

Enclosure 1 contains a historical listing of plant issues, referred to as the Plant Issues Matrix (PIM), used during this PPR process to arrive at our integrated view of your performance trends. The PIM for this assessment is grouped by the prior SALP functional areas of operations, maintenance, engineering and plant support, although the future PIM will be organized along the cornerstones of safety as described in the revised reactor oversight process. The attached PIM includes items summarized from inspection reports or other docketed correspondence between the NRC and Northeast Nuclear Energy Company regarding Millstone Unit 2. We did not document all aspects of your programs and performance that may be functioning appropriately. Rather, we only documented issues that we believe warrant management attention or represent noteworthy aspects of performance. In addition, the PPR may also have considered some predecisional and draft material that does

Mr. Stephen E. Scace

3

not appear in the attached PIM, including observations from events and inspections that had occurred since our last inspection report was issued but had not yet received full review and consideration. We will make this material publicly available as part of the normal issuance of our inspection reports and other correspondence.

Enclosure 2 lists our planned inspections for the period April 2000 through March 2001 at Millstone Unit 2 to allow you to resolve scheduling conflicts and personnel availability in advance of our inspector arrival onsite. Since many of our inspections at Millstone Unit 2 and at other Region I facilities during this period involve a team of inspectors, our ability to reschedule inspections is limited. Therefore, we request you inform us as soon as possible of any scheduling conflicts. The inspection schedule for the latter half of the period is more tentative and may be adjusted in the future due to emerging performance issues at Millstone Unit 2 or other Region I facilities. Routine resident inspections are not listed due to their ongoing and continuous nature.

We will inform you of any changes to the inspection plan. If you have any questions, please contact me at (610) 337-5129.

Sincerely,

**/RA/**

James C. Linville, Director  
Millstone Inspection Directorate

Docket No. 50-423  
License No. NPF-49

Enclosures:

1. Plant Issues Matrix
2. Inspection Plan

Mr. Stephen E. Scace

4

cc w/encls:

B. D. Kenyon, President and Chief Executive Officer - NNECO  
R. P. Necci, Vice President - Nuclear Technical Services  
L. J. Olivier, Senior Vice President and Chief Nuclear Officer - Millstone  
M. H. Brothers, Vice President - Nuclear Operations  
F. C. Rothen, Vice President - Nuclear Work Services  
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G. Winslow, Citizens Regulatory Commission (CRC)  
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P.O. Box 128  
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SUBJECT: PLANT PERFORMANCE REVIEW - MILLSTONE UNIT 3

The purpose of this letter is to communicate our assessment of your performance and to inform you of our planned inspections at your facility. On February 24, 2000, we completed a Plant Performance Review (PPR) of Millstone Unit 3. We conduct these reviews to develop an integrated overview of the safety performance of each operating nuclear power plant. We use the results of the PPR in planning and allocating inspection resources and as inputs to our senior management meeting (SMM) process. This PPR evaluated inspection results and safety performance information for the period from January 16, 1999, through January 31, 2000, but emphasized the last six months to ensure that our assessment reflected your current performance. Our last full and mid-cycle PPR reviews of Millstone Unit 3 were provided to you in letters dated April 9, 1999, and September 30, 1999, respectively.

The NRC has been developing a revised reactor oversight process that will replace our existing inspection and assessment processes, including the PPR, the SMM, and the Systematic Assessment of Licensee Performance (SALP). We recently completed a pilot program for the revised reactor oversight process at nine participating sites and are making necessary adjustments based on feedback and lessons learned. We plan to begin initial implementation of the revised reactor oversight process industry-wide on April 2, 2000.

This PPR reflects continued NRC process improvements as we make the transition into the revised reactor oversight process. You will notice that the following summary of plant performance is organized differently from our previous performance summaries. Instead of characterizing our assessment results by SALP functional area, we are organizing the results into the strategic performance areas embodied in the revised reactor oversight process. In addition, we have considered the historical performance indicator data that you submitted in January 2000, in conjunction with the inspection results, in assessing your performance. The results of this PPR were used to establish the inspection plan in accordance with the new risk-informed inspection program (consisting of baseline and supplemental inspections). Although this letter incorporates some terms and concepts associated with the new oversight process, it does not reflect the much broader changes in inspection and assessment that will be evident after we have fully implemented our revised reactor oversight process.

During the last six months of this assessment period, Millstone Unit 3 remained at full power most of the time. We have not identified any significant performance issues during this

assessment period in any of the three strategic performance areas (reactor safety, radiation safety and safeguards) and note that Millstone Unit 3 continues to operate in a safe manner. Therefore, we currently plan to conduct only our normal baseline inspections at your facility as noted in the attached inspection plan.

The corrective action program and engineering controls demonstrated improvements from the previous cycle. However, recurrent design control problems with the recirculation spray system (RSS) cubicle sump pumps represented ineffective corrective actions and inadequate design controls relating to previous sump pump modifications. NRC team inspections of both the corrective action and engineering programs found effective controls for identifying, resolving, and preventing equipment problems and personnel performance issues; and good engineering support of Millstone Unit 3 operations and maintenance.

A generally healthy safety conscious work environment existed at Millstone. The station had appropriate programs and processes established to address employee concerns and to monitor and evaluate the safety conscious work environment. Site employees were familiar with programs and processes for handling concerns, and they were willing to raise nuclear safety concerns. Challenges to a safety conscious work environment remained due to the impending sale of the plant and planned reductions in contractor and staff positions. The NRC will continue to monitor the safety conscious work environment at Millstone, including the review of the findings from the future Little Harbor Consultant reports, to determine if further NRC inspection in this area is warranted.

Enclosure 1 contains a historical listing of plant issues, referred to as the Plant Issues Matrix (PIM), used during this PPR process to arrive at our integrated view of your performance trends. The PIM for this assessment is grouped by the prior SALP functional areas of operations, maintenance, engineering and plant support, although the future PIM will be organized along the cornerstones of safety as described in the revised reactor oversight process. The attached PIM includes items summarized from inspection reports or other docketed correspondence between the NRC and Northeast Nuclear Energy Company regarding Millstone Unit 3. We did not document all aspects of your programs and performance that may be functioning appropriately. Rather, we only documented issues that we believe warrant management attention or represent noteworthy aspects of performance. In addition, the PPR may also have considered some predecisional and draft material that does not appear in the attached PIM, including observations from events and inspections that had occurred since our last inspection report was issued, but had not yet received full review and consideration. We will make this material publicly available as part of the normal issuance of our inspection reports and other correspondence.

Enclosure 2 lists our planned inspections for the period April 2000 through March 2001 at Millstone Unit 3 to allow you to resolve scheduling conflicts and personnel availability in advance of our inspector arrival onsite. Since many of our inspections at Millstone Unit 3 and at other Region I facilities during this period involve a team of inspectors, our ability to reschedule inspections is limited. Therefore we request you inform us as soon as possible of any scheduling conflicts. The inspection schedule for the latter half of the period is more tentative and may be adjusted in the future due to emerging performance issues at Millstone Unit 3 or other Region I facilities. Routine resident inspections are not listed due to their ongoing and continuous nature.

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3

We will inform you of any changes to the inspection plan. If you have any questions, please contact me at (610) 337-5129.

Sincerely,

***/RA/***

James C. Linville, Director  
Millstone Inspection Directorate

Docket No. 50-423  
License No. NPF-49

Enclosures:

1. Plant Issues Matrix
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M. H. Brothers, Vice President - Nuclear Operations  
F. C. Rothen, Vice President - Nuclear Work Services  
J. T. Carlin, Vice President - Human Services - Nuclear  
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