

June 2, 1994

Docket No. 50-423
B14846

Re: 10CFR50.90

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

Millstone Nuclear Power Station, Unit No. 3
Proposed Revision to Technical Specifications
Generic Letter 93-05 and Various Administrative Changes

Introduction

Pursuant to 10CFR50.90, Northeast Nuclear Energy Company (NNECO) hereby proposes to amend Operating License No. NPF-49 by incorporating the changes identified herein into the Technical Specifications of Millstone Unit No. 3. These proposed changes incorporate the recommendations of Generic Letter (GL) 93-05,⁽¹⁾ remove cycle specific surveillance extensions that were granted in various license amendments, remove the clarification of the definition of operability of the charging pumps granted in Amendment No. 72,⁽²⁾ and administratively cleanup the technical specifications.

The proposed changes are discussed in detail below. Attachments 1 and 2 provide the marked-up and retyped pages of the Millstone Unit No. 3 Technical Specifications, respectively.

Description of Proposed Changes

NNECO proposes to modify the Millstone Unit No. 3 Technical Specifications by incorporating recommendations made in GL 93-05, removing cycle specific surveillance extensions granted in various license amendments, removing the clarification of the definition of operability of the charging pumps granted in Amendment No. 72, and administratively cleaning up the technical specifications.

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- (1) J. G. Partlow letter to All Holders of Operating Licenses or Construction Permits for Nuclear Power Reactors, "Line-Item Technical Specifications Improvements to Reduce Surveillance Requirements for Testing during Power Operation (Generic Letter 93-05)," dated September 27, 1993.
 - (2) J. A. Calvo letter to J. F. Opeka, "Issuance of Amendment [Amendment No. 72] and Temporary Waiver of Compliance (TAC NO. M84904)," dated December 9, 1992.

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Generic Letter 93-05

In December 1992, the NRC issued NUREG-1366, "Improvements to Technical Specifications Surveillance Requirements," to provide the results of a comprehensive examination of surveillance testing required by technical specifications. The NRC determined that, while the majority of testing at power is important, safety can be improved, equipment degradation decreased, and an unnecessary burden on personnel resources eliminated by reducing the amount of testing that the technical specifications require during power operation. On September 27, 1993, the NRC issued GL 93-05, it encouraged licensees to propose changes to their technical specifications that were consistent with the GL guidance.

Of the 47 line items included in GL 93-05, NNECO has determined that eleven of the recommendations would be appropriate to incorporate into the Millstone Unit No. 3 Technical Specifications. The following sections describe the proposed changes. They are labeled by the title and section number utilized in GL 93-05.

During the review, NNECO determined that GL 93-05's recommendation to change the frequency of the control rod movement test from once every 31 days to once every 92 days could not be justified from a risk perspective. Our review determined that the recommendation would have increased the core melt frequency by approximately $1.0E-5$ per year. Therefore, NNECO will not submit a proposal to change the frequency of the control rod movement test.

Radiation Monitors (Section 5.14 of GL 93-05)

NNECO proposes to revise Table 4.3-3, "Radiation Monitoring Instrumentation for Plant Operations Surveillance Requirements," by changing the frequency of the analog channel operational test (ACOT) for the containment and fuel storage pool area radiation monitors from monthly to quarterly.

Pressurizer Heaters (Section 6.6 of GL 93-05)

NNECO proposes to modify Surveillance Requirement 4.4.3.2 by changing the frequency of the pressurizer heater capacity surveillance from at least once per 92 days to at least once each refueling interval.

Reactor Coolant System Isolation Valves (Section 6.1 of GL 93-05)

NNECO proposes to modify Surveillance Requirement 4.4.6.2.2.b by increasing the time that the unit may remain in cold shutdown before leak testing of the reactor coolant system (RCS) isolation valves is required. The time will be increased from 72 hours to 7 days.

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High Point Vent Surveillance Testing (Section 6.3 of GL 93-05)

NNECO proposes to modify Surveillance Requirement 4.4.11.1 by changing the frequency of testing of the RCS vent path block valves from at least once per 92 days to at least once per cold shutdown, if not performed within the previous 92 days.

Accumulator Water Level and Pressure Channel Surveillance Requirements (Section 7.4 of GL 93-05)

NNECO is proposing to delete Surveillance Requirement 4.5.1.2 (the accumulator water level and pressure channel ACOT and channel calibration) from the Millstone Unit No. 3 Technical Specifications and relocate these requirements to the Millstone Unit No. 3 Technical Requirements Manual. Since NNECO is proposing to delete Surveillance Requirement 4.5.1.2, NNECO is proposing to renumber Surveillance Requirement 4.5.1.1.

Currently, Surveillance Requirement 4.5.1.1.a.1. reads: "[Each accumulator shall be demonstrated OPERABLE at least once per 12 hours by] Verifying the contained borated water volume and nitrogen cover-pressure in the tanks to be within the above limits." NNECO proposes to replace this with the following: "[Each accumulator shall be demonstrated OPERABLE at least once per 12 hours by] Verifying that the contained borated water volume and nitrogen cover-pressure in the tanks are within their limits."

Surveillance of Boron Concentration in the Accumulator (Section 7.1 of GL 93-05)

NNECO proposes to add the following statement to Surveillance Requirement 4.5.1.1.b:

"This surveillance is not required when the volume increase makeup source is the RWST."

Visual Inspection of the Containment Sump (Section 7.5 of GL 93-05)

Currently, Surveillance Requirement 4.5.2.c.2 requires a visual inspection of the containment be performed: "Of the areas affected within containment at the completion of each containment entry when CONTAINMENT INTEGRITY is established." NNECO proposes to rewrite Surveillance Requirement 4.5.2.c.2 to require a visual inspection of the containment be performed: "At least once daily of the areas affected (during that day) within containment by containment entry and during the final entry when CONTAINMENT INTEGRITY is established." Additionally, NNECO proposes to incorporate information into the emergency core cooling subsystems Bases Section regarding the rationale for the visual inspection of the containment sump.

Containment Spray System (Section 8.1 of GL 93-05)

NNECO proposes to modify Surveillance Requirements 4.6.2.1.d and 4.6.2.2.e by extending the frequency of the air or smoke flow test through each spray header from at least once per 5 years to at least once per 10 years.

Hydrogen Monitor Surveillance (Section 5.4 of GL 93-05)

NNECO proposes to modify Surveillance Requirement 4.6.4.1 by changing the frequency of the ACOT of each hydrogen monitor from at least once per 31 days to at least once per 92 days, and by changing the frequency of the channel calibration of each hydrogen monitor from at least once per 92 days on a STAGGERED TEST BASIS to at least once each refueling interval.

Hydrogen Recombiner (Section 8.5 of GL 93-05)

NNECO proposes to modify Surveillance Requirement 4.6.4.2.a by changing the frequency of the hydrogen recombiner system functional test from at least once per six months to at least once each refueling outage. With this proposal, each of the surveillance requirements regarding the hydrogen recombiners are required to be performed at least once each refueling interval. Thus, NNECO proposes to renumber Surveillance Requirements 4.6.4.2.b.1 through 5.

Auxiliary Feedwater Pump and System Testing (Section 9.1 of GL 93-05)

NNECO proposes to modify Surveillance Requirement 4.7.1.2.1.a by changing the frequency of testing the auxiliary feedwater pumps from at least once per 31 days on a STAGGERED TEST BASIS to at least once per 92 days on a STAGGERED TEST BASIS. Additionally, NNECO proposes to renumber Surveillance Requirements 4.7.1.2.1.a.1 through 4 and 4.7.1.2.1.b. Surveillance Requirements 4.7.1.2.1.a.3 and 4 will be renumbered 4.7.1.2.1.a.1 and 2, respectively. Also, the valves in the auxiliary feedwater system flow paths will continue to be tested at least once per 31 days. Surveillance Requirements 4.7.1.2.1.a.1 and 2 will be renumbered 4.7.1.2.1.b.1 and 2, respectively. Surveillance Requirement 4.7.1.2.1.b will be renumber 4.7.1.2.1.c.

Removal of Cycle Specific Surveillance Extensions

In various license amendments, the NRC Staff granted one-time extensions regarding numerous surveillances. These extensions were originally required to prevent a forced shutdown of Millstone Unit No. 3 prior to the start of the cycle 4 refueling outage (RFO). The start of the cycle 4 RFO was rescheduled from November 1992, to

July 31, 1993, due to unplanned outages that occurred during cycle 4 operation. These one-time extensions to the surveillance frequencies are no longer applicable, and the applicable surveillances were performed during the fourth refueling outage prior to the start of cycle 5 operation. Therefore, NNECO proposes to delete the one-time extensions in the Sections of the Millstone Unit No. 3 Technical Specifications listed below. To assist in the review of this request, the affected technical specification sections and page numbers, along with references to the applicable amendment that granted the one-time extensions, are listed below.

Amendment Number Granting One-Time Extensions	Section Number(s)	Page Number(s)
73 ⁽³⁾	4.8.1.1.2.g.1	3/4 8-5
75 ⁽⁴⁾	4.6.1.2.d and e	3/4 6-3
78 ⁽⁵⁾	4.7.10.e	3/4 7-23
79 ⁽⁶⁾	4.2.3.1.4	3/4 2-20
	4.2.3.2.4	3/4 2-23
	4.3.1.2	3/4 3-1
	Table 4.3-1	3/4 3-10 - 12 and 14
	4.3.2.2	3/4 3-16
	Table 4.3-2	3/4 3-36 - 41
	Table 4.3-3	3/4 3-45
	Table 4.3-4	3/4 3-49
	4.3.3.5.2	3/4 3-53
	Table 4.3-6	3/4 3-58
	Table 4.3-7	3/4 3-62 and 63
	4.3.3.8.c	3/4 3-68
	4.4.6.1.b	3/4 4-21
	4.4.9.3.1.b	3/4 4-39
	4.5.2.d	3/4 5-4
	4.8.1.1.2.g.10 and 12	3/4 8-7
	4.8.2.1.c through f	3/4 8-12

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- (3) V. L. Rooney letter to J. F. Opeka, "Issuance of Amendment [Amendment No. 73] (TAC NO. M84751)," dated December 23, 1992.
- (4) V. L. Rooney letter to J. F. Opeka, "Issuance of Amendment [Amendment No. 75] (TAC NO. M84951)," dated January 29, 1993.
- (5) V. L. Rooney letter to J. F. Opeka, "Issuance of Amendment [Amendment No. 78] (TAC NO. M85470)," dated March 9, 1993.
- (6) V. L. Rooney letter to J. F. Opeka, "Issuance of Amendment [Amendment No. 79] (TAC NO. M86148)," dated June 8, 1993.

Amendment Number	Section Number(s)	Page Number(s)
Granting One-Time Extensions		
82 ⁽⁷⁾	4.4.5.3.a	3/4 4-16

Clarification Regarding Operability of the Charging Pumps

Amendment No. 72 to the Facility Operating License for Millstone Unit No. 3 changed the technical specification definition of operability of the charging pumps. The revised definition permitted Millstone Unit No. 3 to take credit, during cycle 4 operation only, for a temporary heating source in order to maintain a temperature of at least 32°F within the charging pump/reactor plant component cooling water pump areas of the auxiliary building. NNECO has recently completed necessary modifications which eliminated the reliance on a temporary heating source for operability. Therefore, NNECO proposes to delete Definition 1.45, "THE CHARGING PUMP OPERABILITY," from the Millstone Unit No. 3 Technical Specifications. Additionally, NNECO proposes to modify the Index to reflect this change.

Administrative Changes

Amendment No. 28⁽⁸⁾ relocated Tables 3.6-2, "Containment Isolation Valves," 3.8-1, "Containment Penetration Conductor Overcurrent Protective Devices," 3.8-2a, "Motor-Operated Valves Thermal Overload Protection Bypassed Only Under Accident Conditions," and 3.8-2b, "Motor-Operated Valves Thermal Overload Protection Not Bypassed Under Accident Conditions," from the Millstone Unit No. 3 Technical Specifications to the Technical Requirements Manual. This resulted in a number of pages that simply possess the statement "This page intentionally left blank." Also, page 3/4 6-36a was left intentionally blank by Amendment No. 63.⁽⁹⁾ Since these pages no longer provide any significant information, NNECO is proposing to delete pages 3/4 6-16 through 3/4 6-34 and page 3/4 6-36a, and renumber pages 3/4 6-35 through 3/4 6-42

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- (7) V. L. Rooney letter to J. F. Opeka, "Issuance of Amendment [Amendment No. 82] (TAC NO. M86224)," dated August 19, 1993.
- (8) D. H. Jaffe letter to E. J. Mroczka, "Issuance of Amendment [Amendment No. 28] (TAC NOS. 69037 and 69348)," dated December 19, 1988.
- (9) D. H. Jaffe letter to E. J. Mroczka, "Issuance of Amendment [Amendment No. 63] (TAC NO. 79628)," dated September 19, 1991.

(except for 3/4 6-36a). Additionally, NNECO proposes to modify the Index to reflect these changes.

Amendment No. 84⁽¹⁰⁾ relocated requirements pertaining to the Fire Protection Program from the Millstone Unit No. 3 Technical Specifications to the Technical Requirements Manual. This resulted in a number of blank pages that simply possess the statement "This page intentionally left blank." These pages are no longer meaningful. Therefore, NNECO is proposing to delete pages 3/4 7-30 through 3/4 7-43, renumber pages 3/4 7-26a, 3/4 7-26b, 3/4 7-27 through 3/4 7-29, and 3/4 7-44 through 3/4 7-47, and renumber Section 3/4.7.14 and Table 3.7-6. To reflect these changes, NNECO proposes to modify the Index of the Millstone Unit No. 3 Technical Specifications and references to Section 3/4.7.14 and Table 3.7-6 contained within the Millstone Unit No. 3 Technical Specifications.

Additionally, NNECO proposes to correct typographical errors on page xv of the Index and page 3/4 4-21 of the Millstone Unit No. 3 Technical Specifications. Currently, Bases Page 3/4 9-3 is referred to as B34/ 9-3 on page xv of the Index, and particulate is misspelled in Action Statement "b" on page 3/4 4-21.

Safety Assessment

Generic Letter 93-05

In December 1992, the NRC issued NUREG-1366, "Improvements to Technical Specifications Surveillance Requirements," to provide the results of a comprehensive examination of surveillance testing required by technical specifications. The NRC determined that, while the majority of testing at power is important, safety can be improved, equipment degradation decreased, and an unnecessary burden on personnel resources eliminated by reducing the amount of testing that the technical specifications require during power operation. On September 27, 1993, the NRC issued GL 93-05, it encouraged licensees to propose changes to their technical specifications that were consistent with the GL guidance.

The proposed changes discussed in this section are consistent with the guidance of GL 93-05. Increasing the surveillance test intervals as proposed will reduce the number of surveillance tests and minimize the potential for inadvertent actuation of an engineered safety feature. The increase in the surveillance test intervals will enhance the operational effectiveness of plant personnel, by reducing the amount of time that the staff of Millstone Unit No. 3 spends performing surveillance testing and

(10) V. L. Rooney letter to J. F. Opeka, "Issuance of Amendment [Amendment No. 84] (TAC NO. M84264)," dated October 25, 1993.

increasing the amount of time that the plant staff has available to perform other tasks, such as additional preventive maintenance. Additionally, increasing the surveillance test interval will reduce unnecessary wear to equipment.

Based on the above, the proposed changes to incorporate the guidance of GL 93-05 do not adversely affect public health and safety.

Radiation Monitors (Section 5.14 of GL 93-05)

Industry and Millstone Unit No. 3 experience have demonstrated that frequent testing of radiation monitors tends to degrade the equipment since the instrumentation must be removed from and reinserted into the cabinets. Additionally, this testing requires a significant number of man-hours to implement.

Channel checks, in conjunction with failure alarms, will detect failures that require corrective action. NNECO's proposal to change the frequency of the ACOT does not alter the frequency for performance of channel checks. They are required at least once per 12 hours.

Based on the above, NNECO's proposal to revise Table 4.3-3 by changing the performance frequency of the ACOT for the containment and fuel storage pool area radiation monitors from monthly to quarterly does not adversely affect public health and safety.

Pressurizer Heaters (Section 6.6 of GL 93-05)

The pressurizer heaters are used to control RCS pressure during normal operation. Proportional heaters are used to continuously compensate for heat losses while backup heaters provide for initial pressurizer heat up and for added heat input during low pressure conditions. Two banks of the backup heaters are permanently connected to emergency power buses. Any problems associated with these heaters would be identified during operation, because the proportional and backup heaters are regularly used. Additionally, these heaters have proved to be reliable. Therefore, NNECO's proposal to modify Surveillance Requirement 4.4.3.2 by changing the frequency of the pressurizer heater capacity test from at least once per 92 days to at least once each refueling interval does not adversely affect public health and safety.

Reactor Coolant System Isolation Valves (Section 6.1 of GL 93-05)

The reliability of the RCS isolation valves has been demonstrated by past testing. The subject valves have passed each of the leak tests performed during the time period of 1986 through 1993. The valves will continue to be leak tested at least once per 18 months

and within 24 hours following valve actuation. Also, failure of an RCS isolation valve is more likely to occur during the different evolutions the systems go through than during mode changes.

Each RCS isolation path has at least double isolation. Most of these paths have two check valves in series. In addition, leakage can be detected through other alarms (e.g., high accumulator pressure) or prevented by a third valve in series (e.g., 3-SIL-V6).

Based on the above, NNECO's proposal to modify Surveillance Requirement 4.4.6.2.2.b by increasing the time that the unit may remain in cold shutdown without leak testing the RCS isolation valves does not adversely affect public health and safety.

High Point Vent Surveillance Testing (Section 6.3 of GL 93-05)

RCS vents are provided to exhaust noncondensable gases and/or steam from the reactor vessel that could inhibit natural circulation core cooling. There is redundancy in the flow path from the reactor vessel head to the pressurizer relief tank which ensures that a single failure will not prevent isolation of the vent path.

These valves have proven to be reliable, since the test results for the period of 1986 through 1993 were acceptable. Additionally, testing of these valves at pressure has the potential to cause a release of reactor coolant.

Based on the above, NNECO's proposal to modify Surveillance Requirement 4.4.11.1 by changing the frequency of testing of the RCS vent path block valves from at least once per 92 days to at least once per cold shutdown, if not performed within the previous 92 days, does not adversely affect public health and safety.

Accumulator Water Level and Pressure Channel Surveillance Requirements (Section 7.4 of GL 93-05)

NNECO's proposal to delete Surveillance Requirement 4.5.1.2 (the accumulator water level and pressure channel ACOT and channel calibration) from the Millstone Unit No. 3 Technical Specifications and relocate these requirements to the Millstone Unit No. 3 Technical Requirements Manual is consistent with industry recognition that accumulator water level and pressure instrumentation operability are not directly related to the capability of the accumulators to perform their safety function.

NNECO's proposal to renumber Surveillance Requirement 4.5.1.1 and rewrite Surveillance Requirement 4.5.1.1.a.1 are administrative changes.

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Based on the above, NNECO's proposals do not adversely affect public health and safety.

Surveillance of Boron Concentration in the Accumulator (Section 7.1 of GL 93-05)

NNECO's proposal to modify Surveillance Requirement 4.5.1.1.b by removing the requirement to verify the boron concentration of the accumulator inventory after a volume increase of one percent when the volume increase makeup source is the refueling water storage tank (RWST) and the RWST has not been diluted does not affect accumulator boron concentration, since the boron concentration of the makeup source (i.e., the RWST) will be verified to be equal or higher than the accumulator boron concentration. Therefore, the proposed change does not adversely affect public health and safety.

Visual Inspection of the Containment Sump (Section 7.5 of GL 93-05)

NNECO's proposal to revise Surveillance Requirement 4.5.2.c.2 so that containment sump inspections may be performed at least once a day during the final containment entry, instead of being performed during each containment entry, will reduce personnel exposure. The purpose of the inspection is to ensure that no loose debris is present in the containment sump which could cause restriction of the containment recirculation pumps during post-accident conditions. The surveillance requires that the inspection be performed prior to establishing containment integrity. This implies that the surveillance requirement would apply principally to the containment entries made at power, hot standby, or hot shutdown. Containment entries during these modes would be limited to specific problems in a small number of areas. The likelihood of creating a significant volume of debris during multiple containment entries in a single day that could block the containment sump beyond the assumptions in the safety analyses is very low.

Additionally, NNECO's proposal to incorporate information regarding the rationale for the visual inspection of the containment sump into the Bases of the Millstone Unit No. 3 Technical Specifications is consistent with the changes proposed to the technical specifications.

Based on the above, NNECO's proposals do not adversely affect public health and safety.

Containment Spray System (Section 8.1 of GL 93-05)

The safety function of the containment spray systems (Quench Spray System and Containment Recirculation Spray System) is to reduce the containment pressure following a break in either the primary or secondary piping system inside the containment. Each system is

equipped with two parallel 360 degree spray headers. The two systems are not interconnected, therefore, failure of one system does not affect the capability of the other system to perform its safety function. These systems are constructed of corrosion-resistant material, and are inaccessible. Thus, there is no reason to believe that these headers have become corroded or obstructed. Also, the previous tests performed at Millstone Unit No. 3 had acceptable results.

Based on the above, NNECO's proposal to modify Surveillance Requirements 4.6.2.1.d and 4.6.2.2.e by extending the frequency of performance of an air or smoke flow test of each spray header from at least once per 5 years to at least once per 10 years does not adversely affect public health and safety.

Hydrogen Monitor Surveillance (Section 5.4 of GL 93-05)

Hydrogen monitors are used to monitor hydrogen concentration in the containment following a loss of coolant accident (LOCA). They provide the control room operators with information to permit them to make an informed decision on when to initiate operation of the hydrogen recombiners. The hydrogen recombiners are not required for a number of hours post-LOCA; the Millstone Unit No. 3 accident analyses assume that hydrogen recombiner operation begins 24 hours after a LOCA. A redundant method of verifying hydrogen concentration is available via grab sample connections from the containment atmosphere particulate and gaseous radiation monitoring system. Thus, even without the hydrogen monitors, the hydrogen concentration can be determined. NNECO's proposal to modify Surveillance Requirement 4.6.4.1 by changing the frequency of ACOTs of each hydrogen monitor from at least once per 31 days to at least once per 92 days, and by changing the frequency of channel calibrations of each hydrogen monitor from at least once per 92 days on a STAGGERED TEST BASIS to at least once each refueling interval does not adversely affect public health and safety.

Hydrogen Recombiner (Section 8.5 of GL 93-05)

The hydrogen recombiner system is required to maintain the hydrogen concentration in the containment below four volume percent following a design basis accident (DBA). The system is arranged in two redundant 100 percent capacity trains. As stated before, the Millstone Unit No. 3 accident analyses assume that hydrogen recombiner operation is initiated 24 hours following a LOCA. The containment vacuum system can be used as a back-up purge system for post-DBA combustible gas control within containment. This redundancy assures post-accident hydrogen control.

NNECO's proposal to renumber Surveillance Requirements 4.6.4.2.b.1 through 5 is an administrative change.

Based on the above, NNECO's proposal to modify Surveillance Requirement 4.6.4.2.a by changing the frequency for the hydrogen recombiner system functional test from at least once per six months to at least once each refueling outage does not adversely affect public health and safety.

Auxiliary Feedwater Pump and System Testing (Section 9.1 of GL 93-05)

Testing of auxiliary feedwater pumps by recirculating flow through a minimum flow line which is not adequately sized has been demonstrated by industry studies to be a significant cause of auxiliary feedwater pump failures. These studies also apply to the Millstone Unit No. 3 auxiliary feedwater pumps. Millstone Unit No. 3 possesses three auxiliary feedwater pumps (two motor driven and one turbine driven). Each of these pumps are equipped with minimum flow recirculation lines which are used during surveillance tests. These recirculation lines are sized for flows of 45 gallons per minute (gpm) for the motor driven pumps and 90 gpm for the turbine driven pump. These flows are very low, and are substantially below the design flows of these pumps (575 gpm and 1150 gpm, respectively). Some pump impeller degradation (wear of the impeller vanes) is expected if pump operation at these low flows is repeated frequently. Therefore, NNECO's proposal to modify Surveillance Requirement 4.7.1.2.1.a by changing the frequency of testing the auxiliary feedwater pumps from at least once per 31 days on a STAGGERED TEST BASIS to at least once per 92 days on a STAGGERED TEST BASIS could reduce the rate of wear and potential failure of an auxiliary feedwater pump.

The proposed change in frequency is consistent with the ASME code which requires class 2 pumps to be tested on a quarterly basis. Additionally, NNECO's proposal to renumber Surveillance Requirements 4.7.1.2.1.a.1 through 4 and 4.7.1.2.1.b is an administrative change.

Based on the above, these proposed changes do not adversely affect public health and safety.

Removal of Cycle Specific Surveillance Extensions

NNECO's proposals to delete the one-time extensions from numerous sections of the Millstone Unit No. 3 Technical Specifications do not adversely affect public health and safety. These extensions were in effect only to September 30, 1993. Since these extensions have expired and the appropriate surveillances performed, the proposed changes do not affect the configuration, operation, or performance of any system, structure, or component.

Clarification Regarding Operability of the Charging Pumps

NNECO's proposals to delete Definition 1.45, "THE CHARGING PUMP OPERABILITY," from the Millstone Unit No. 3 Technical Specifications and modify the Index to reflect this change are administrative changes. Definition 1.45 was applicable only for cycle 4 operation. Additionally, NNECO has completed the necessary modifications such that we no longer rely on a temporary heating source. Elimination of Definition 1.45 from the Millstone Unit No. 3 Technical Specifications does not adversely affect public health and safety.

Administrative Changes

NNECO's proposals to delete pages 3/4 6-16 through 3/4 6-34, page 3/4 6-36a, and pages 3/4 7-30 through 3/4 7-43, renumber pages 3/4 6-35 through 3/4 6-42 (except for 3/4 6-36a), page 3/4 7-26a, page 3/4 7-26b, pages 3/4 7-27 through 3/4 7-29, and pages 3/4 7-44 through 3/4 7-47, renumber Section 3/4.7.14 and Table 3.7-6, and modify the Index to reflect these changes are administrative changes. NNECO's proposals to correct typographical errors on page xv of the Index and page 3/4 4-2' of the Millstone Unit No. 3 Technical Specifications are also administrative changes. The proposed changes do not affect the configuration, operation, or performance of any system, structure, or component. Therefore, these proposed changes do not adversely affect public health and safety.

Significant Hazards Consideration

NNECO has reviewed the proposed changes in accordance with 10CFR50.92 and concluded that the changes do not involve a significant hazards consideration (SHC). The basis for this conclusion is that the three criteria of 10CFR50.92(c) are not compromised. The proposed changes do not involve a SHC because the changes would not:

1. Involve a significant increase in the probability or consequences of an accident previously analyzed.

GL 93-05

Radiation Monitors (Section 5.14 of GL 93-05)

Industry and site experience have demonstrated that frequent testing of radiation monitors tends to degrade the equipment since the instrumentation must be removed from and reinserted into the cabinets. Additionally, this testing requires a significant number of man-hours to implement.

Channel checks, in conjunction with failure alarms, will detect failures that require corrective action. NNECO's proposal to change the frequency of the ACOT does not alter the frequency for the channel checks. Channel checks are required to be performed at least once per 12 hours.

Based on the above, NNECO's proposal to revise Table 4.3-3 by changing the performance frequency of the ACOT for the containment and fuel storage pool area radiation monitors from monthly to quarterly does not involve a significant increase in the probability or consequences of an accident previously analyzed.

Pressurizer Heaters (Section 6.6 of GL 93-05)

The pressurizer heaters are used to control RCS pressure during normal operation. Proportional heaters are used to continuously compensate for heat losses while backup heaters provide for initial pressurizer heat up and for added heat input during low pressure conditions. Two banks of the backup heaters are permanently connected to emergency power buses. Any problems associated with these heaters would be identified during operation, because the proportional and backup heaters are regularly used. Additionally, these heaters have proved to be reliable. Therefore, NNECO's proposal to modify Surveillance Requirement 4.4.3.2 by changing the frequency of the pressurizer heater capacity test from at least once per 92 days to at least once each refueling interval does not involve a significant increase in the probability or consequences of an accident previously analyzed.

Reactor Coolant System Isolation Valves (Section 6.1 of GL 93-05)

The reliability of the RCS isolation valves has been demonstrated by past testing. The subject valves have passed each of the leak tests performed during the time period of 1986 through 1993. The valves will continue to be leak tested at least once per 18 months and within 24 hours following valve actuation. Also, failure of an RCS isolation valve is more likely to occur during the different evolutions the systems go through than during mode changes.

Each RCS isolation path has at least double isolation. Most of these paths have two check valves in series. In addition, leakage can be detected through other alarms or prevented by a third valve in series.

Based on the above, NNECO's proposal to modify Surveillance Requirement 4.4.6.2.2.b by increasing the time that the unit

may remain in cold shutdown without leak testing the RCS isolation valves does not involve a significant increase in the probability or consequences of an accident previously analyzed.

High Point Vent Surveillance Testing (Section 6.3 of GL 93-05)

RCS vents are provided to exhaust noncondensable gases and/or steam from the reactor vessel that could inhibit natural circulation core cooling. There is redundancy in the flow path from the reactor vessel head to the pressurizer relief tank which ensures that a single failure will not prevent isolation of the vent path.

These valves have proven to be reliable, since the test results for the period of 1986 through 1993 were acceptable. Additionally, testing of these valves at pressure has the potential to cause a release of reactor coolant.

Based on the above, NNECO's proposal to modify Surveillance Requirement 4.4.11.1 by changing the frequency of testing of the RCS vent path block valves from at least once per 92 days to at least once per cold shutdown, if not performed within the previous 92 days, does not involve a significant increase in the probability or consequences of an accident previously analyzed.

Accumulator Water Level and Pressure Channel Surveillance Requirements (Section 7.4 of GL 93-05)

NNECO's proposal to delete Surveillance Requirement 4.5.1.2 (the accumulator water level and pressure channel ACOT and channel calibration) from the Millstone Unit No. 3 Technical Specifications and relocate these requirements to the Millstone Unit No. 3 Technical Requirements Manual is consistent with industry recognition that accumulator water level and pressure instrumentation operability are not directly related to the capability of the accumulators to perform their safety function.

NNECO's proposal to renumber Surveillance Requirement 4.5.1.1 and rewrite Surveillance Requirement 4.5.1.1.a.1 are administrative changes.

Based on the above, NNECO's proposals do not involve a significant increase in the probability or consequences of an accident previously analyzed.

Surveillance of Boron Concentration in the Accumulator
(Section 7.1 of GL 93-05)

NNECO's proposal to modify Surveillance Requirement 4.5.1.1.b by removing the requirement to verify the boron concentration of the accumulator inventory after a volume increase of one percent when the volume increase makeup source is the RWST and the RWST has not been diluted does not affect accumulator boron concentration, since the boron concentration of the makeup source (i.e., the RWST) is verified to be equal or higher than the accumulator boron concentration. Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously analyzed.

Visual Inspection of the Containment Sump (Section 7.5 of GL
93-05)

NNECO's proposal to revise Surveillance Requirement 4.5.2.c.2 so that containment sump inspections may be performed at least once a day during the final containment entry, instead of being performed during each containment entry, will reduce personnel exposure. The purpose of the inspection is to ensure that no loose debris is present in the containment sump which could cause restriction of the containment recirculation pumps during post-accident conditions. The surveillance requires that the inspection be performed prior to establishing containment integrity. This implies that the surveillance requirement would apply principally to the containment entries made at power, hot standby, or hot shutdown. Containment entries during these modes would be limited to specific problems in a small number of areas. The likelihood of creating a significant volume of debris during multiple containment entries in a single day that could block the containment sump beyond the assumptions in the safety analyses is very low.

Additionally, NNECO's proposal to incorporate information regarding the rationale for the visual inspection of the containment sump into the Bases of the Millstone Unit No. 3 Technical Specifications is consistent with the changes proposed to the technical specifications.

Based on the above, NNECO's proposals do not involve a significant increase in the probability or consequences of an accident previously analyzed.

Containment Spray System (Section 8.1 of GL 93-05)

The safety function of the containment spray systems (Quench Spray System and Containment Recirculation Spray System) is to reduce the containment pressure following a break in either the primary or secondary piping system inside the containment. Each system is equipped with two parallel 360 degree spray headers. The two systems are not interconnected, therefore, failure of one system does not affect the capability of the other system to perform its safety function. These systems are constructed of corrosion-resistant material, and are inaccessible. Thus, there is no reason to believe that these headers have become corroded or obstructed. Also, the previous tests performed at Millstone Unit No. 3 have been performed with successful results.

Based on the above, NNECO's proposal to modify Surveillance Requirements 4.6.2.1.d and 4.6.2.2.e by extending the frequency of performance of an air or smoke flow test of each spray header from at least once per 5 years to at least once per 10 years does not involve a significant increase in the probability or consequences of an accident previously analyzed.

Hydrogen Monitor Surveillance (Section 5.4 of GL 93-05)

Hydrogen monitors are used to monitor hydrogen concentration in the containment following a LOCA. They provide the control room operators with information to permit them to make an informed decision on when to initiate operation of the hydrogen recombiners. The hydrogen recombiners are not required for a number of hours post-LOCA; the Millstone Unit No. 3 accident analyses assume that hydrogen recombiner operation begins 24 hours after a LOCA. A redundant method of verifying hydrogen concentration is available via grab sample connections from the containment atmosphere particulate and gaseous radiation monitoring system. Thus, even without the hydrogen monitors, the hydrogen concentration can be determined. NNECO's proposal to modify Surveillance Requirement 4.6.4.1 by changing the frequency of ACOTs of each hydrogen monitor from at least once per 31 days to at least once per 92 days, and by changing the frequency of channel calibrations of each hydrogen monitor from at least once per 92 days on a STAGGERED TEST BASIS to at least once each refueling interval does not involve a significant increase in the probability or consequences of an accident previously analyzed.

Hydrogen Recombiner (Section 8.5 of GL 93-05)

The hydrogen recombiner system is required to maintain the hydrogen concentration in the containment below four volume percent following a DBA. The system is arranged in two redundant 100 percent capacity trains. As stated before, the Millstone Unit No. 3 accident analyses assume that hydrogen recombiner operation is initiated 24 hours following a LOCA. The containment vacuum system can be used as a back-up purge system for post-DBA combustible gas control within containment. This redundancy assures post-accident hydrogen control.

NNECO's proposal to renumber Surveillance Requirements 4.6.4.2.b.1 through 5 is an administrative change.

Based on the above, NNECO's proposal to modify Surveillance Requirement 4.6.4.2.a by changing the frequency for the hydrogen recombiner system functional test from at least once per six months to at least once each refueling outage does not involve a significant increase in the probability or consequences of an accident previously analyzed.

Auxiliary Feedwater Pump and System Testing (Section 9.1 of GL 93-05)

Testing of auxiliary feedwater pumps by recirculating flow through a minimum flow line which is not adequately sized has been demonstrated by industry studies to be a significant cause of auxiliary feedwater pump failures. These studies apply to the Millstone Unit No. 3 auxiliary feedwater pumps. Millstone Unit No. 3 possesses three auxiliary feedwater pumps (two motor driven and one turbine driven). Each of these pumps are equipped with minimum flow recirculation lines which are used during surveillance tests. These recirculation lines are sized for flows of 45 gpm for the motor driven pumps and 90 gpm for the turbine driven pump. These flows are very low, and are substantially below the design flows of these pumps (575 gpm and 1150 gpm, respectively). Some pump impeller degradation (wear of the impeller vanes) is expected if pump operation at these low flows is repeated frequently. Therefore, NNECO's proposal to modify Surveillance Requirement 4.7.1.2.1.a by changing the frequency of testing the auxiliary feedwater pumps from at least once per 31 days on a STAGGERED TEST BASIS to at least once per 92 days on a STAGGERED TEST BASIS could reduce the rate of wear and potential failure of an auxiliary feedwater pump.

The proposed change in frequency is consistent with the ASME code which requires class 2 pumps to be tested on a quarterly basis.

Additionally, NNECO's proposal to renumber Surveillance Requirements 4.7.1.2.1.a.1 through 4 and 4.7.1.2.1.b is an administrative change.

Based on the above, these proposed changes do not involve a significant increase in the probability or consequences of an accident previously analyzed.

Removal of Cycle Specific Surveillance Extensions

NNECO's proposals to delete the one-time extensions from numerous sections of the Millstone Unit No. 3 Technical Specifications do not involve a significant increase in the probability or consequences of an accident previously analyzed. These extensions were in effect only to September 30, 1993. Since these extensions have expired and the appropriate surveillances performed, the proposed changes do not affect the configuration, operation, or performance of any system, structure, or component.

Clarification Regarding Operability of the Charging Pumps

NNECO's proposals to delete Definition 1.45, "THE CHARGING PUMP OPERABILITY," from the Millstone Unit No. 3 Technical Specifications and modify the Index to reflect this change are administrative changes. Definition 1.45 was applicable only for cycle 4 operation. NNECO has completed the necessary modifications such that we no longer rely on a temporary heating source. Elimination of Definition 1.45 from the Millstone Unit No. 3 Technical Specifications does not involve a significant increase in the probability or consequences of an accident previously analyzed.

Administrative Changes

NNECO's proposals to delete pages 3/4 6-16 through 3/4 6-34, page 3/4 6-36a, and pages 3/4 7-30 through 3/4 7-43, renumber pages 3/4 6-35 through 3/4 6-42 (except for 3/4 6-36a), page 3/4 7-26a, page 3/4 7-26b, pages 3/4 7-27 through 3/4 7-29, and pages 3/4 7-44 through 3/4 7-47, renumber Section 3/4.7.14 and Table 3.7-6, and modify the Index to reflect these changes are administrative changes. NNECO's proposals to correct typographical errors on page xv of the Index and page 3/4 4-21 of the Millstone Unit No. 3 Technical Specifications are also administrative changes. The proposed changes do not affect the configuration, operation, or performance of any system,

structure, or component. Thus, they do not involve a significant increase in the probability or consequences of an accident previously analyzed.

2. Create the possibility of a new or different kind of accident from any previously analyzed.

GL 93-05

The proposed changes to the Millstone Unit No. 3 Technical Specifications to incorporate the recommendations of GL 93-05 do not affect the configuration, operation or performance of the subject systems.

These proposed changes are consistent with the guidance of GL 93-05. Increasing the surveillance test intervals as proposed will reduce the number of surveillance tests and minimize the potential for inadvertent actuation of an engineered safety feature. The increase in the surveillance test intervals will enhance the operational effectiveness of plant personnel, by reducing the amount of time that the plant staff of Millstone Unit No. 3 spends performing surveillance testing and increasing the amount of time that the plant staff has available to perform other tasks, such as additional preventive maintenance. Additionally, increasing the surveillance test interval will reduce unnecessary wear to equipment.

Based on the above, these proposed changes cannot create the possibility of a new or different kind of accident from any previously analyzed.

Removal of Cycle Specific Surveillance Extensions

NNECO's proposals to delete the one-time extensions from numerous sections of the Millstone Unit No. 3 Technical Specifications cannot create the possibility of a new or different kind of accident from any previously analyzed. These extensions were in effect only to September 30, 1993. Since these extensions have expired and the appropriate surveillances have been performed, the proposed changes do not affect the configuration, operation, or performance of any system, structure, or component.

Clarification Regarding Operability of the Charging Pumps

NNECO's proposals to delete Definition 1.45, "THE CHARGING PUMP OPERABILITY," from the Millstone Unit No. 3 Technical Specifications and modify the Index to reflect this change are administrative changes. Definition 1.45 was applicable only

for cycle 4 operation. NNECO has completed the necessary modifications such that we no longer rely on a temporary heating source. Elimination of Definition 1.45 from the Millstone Unit No. 3 Technical Specifications cannot create the possibility of a new or different kind of accident from any previously analyzed.

Administrative Changes

NNECO's proposals to delete pages 3/4 6-16 through 3/4 6-34, 3/4 6-36a, and pages 3/4 7-30 through 3/4 7-43, renumber pages 3/4 6-35 through 3/4 6-42 (except for 3/4 6-36a), page 3/4 7-26a, page 3/4 7-26b, pages 3/4 7-27 through 3/4 7-29, and pages 3/4 7-44 through 3/4 7-47, renumber Section 3/4.7.14 and Table 3.7-6, and modify the Index to reflect these changes are administrative changes. NNECO's proposals to correct typographical errors on page xv of the Index and page 3/4 4-21 of the Millstone Unit No. 3 Technical Specifications are also administrative changes. The proposed changes do not affect the configuration, operation, or performance of any system, structure, or component. Therefore, these proposed changes cannot create the possibility of a new or different kind of accident from any previously analyzed.

3. Involve a significant reduction in the margin of safety.

GL 93-05

These proposed changes are consistent with the guidance of GL 93-05. Increasing the surveillance test intervals as proposed will reduce the number of surveillance tests and minimize the potential for inadvertent actuation of an engineered safety feature. The increase in the surveillance test intervals will enhance the operational effectiveness of plant personnel, by reducing the amount of time that the plant staff of Millstone Unit No. 3 spends performing surveillance testing and increasing the amount of time that the staff has available to perform other tasks, such as additional preventive maintenance. Additionally, increasing the surveillance test interval will reduce unnecessary wear to equipment.

The proposed changes to the Millstone Unit No. 3 Technical Specifications to incorporate the recommendations of GL 93-05 do not reduce the capability of any system or component to perform its intended safety function. They either modify the surveillance frequency or clarify the wording of the surveillance requirement. These proposed changes do not change the method of performing any surveillance, nor do they affect the configuration, operation, or performance of the subject systems.

Based on the above, these proposed changes do not involve a significant reduction in a margin of safety.

Removal of Cycle Specific Surveillance Extensions

NNECO's proposals to delete the one-time extensions from numerous sections of the Millstone Unit No. 3 Technical Specifications does not involve a significant reduction in a margin of safety. These extensions were in effect only to September 30, 1993. Since the extensions have expired and the appropriate surveillances have been conducted, the proposed changes do not affect the configuration, operation, or performance of any system, structure, or component.

Clarification Regarding Operability of the Charging Pumps

NNECO's proposals to delete definition 1.45, "THE CHARGING PUMP OPERABILITY," from the Millstone Unit No. 3 Technical Specifications and modify the Index to reflect this change are administrative changes. Definition 1.45 was applicable only for cycle 4 operation. NNECO has completed the necessary modifications such that we no longer rely on a temporary heating source. Elimination of Definition 1.45 from the Millstone Unit No. 3 Technical Specifications does not involve a significant reduction in a margin of safety.

Administrative Changes

NNECO's proposals to delete pages 3/4 6-16 through 3/4 6-34, page 3/4 6-36a, and pages 3/4 7-30 through 3/4 7-43, renumber pages 3/4 6-35 through 3/4 6-42 (except for 3/4 6-36a), page 3/4 7-26a, page 3/4 7-26b, pages 3/4 7-27 through 3/4 7-29, and pages 3/4 7-44 through 3/4 7-47, renumber Section 3/4.7.14 and Table 3.7-6, and modify the Index to reflect these changes are administrative changes. NNECO's proposals to correct typographical errors on page xv of the Index and page 3/4 4-21 of the Millstone Unit No. 3 Technical Specifications are also administrative changes. The proposed changes do not affect the configuration, operation, or performance of any system, structure, or component. Therefore, these proposed changes do not involve a significant reduction in a margin of safety.

The Commission has provided guidance concerning the application of the standards of 10CFR50.92 by providing certain examples (51 FR 7751, March 6, 1986) of amendments that are not considered likely to involve a SHC. NNECO's proposals to modify the Millstone Unit No. 3 Technical Specifications by removing cycle specific surveillance extensions granted in various license amendments, removing the clarification of the definition of operability of the charging pumps granted in Amendment No. 72, and administratively

cleaning up the technical specifications are enveloped by example (i), "A purely administrative change to technical specifications: for example, a change to achieve consistency throughout the technical specifications, correction of an error, or a change in nomenclature." NNECO's proposals to incorporate the recommendations made in GL 93-05 are not enveloped by any of the examples. However, as justified above, the proposed changes do not involve an SHC.

Environmental Considerations

NNECO has reviewed the proposed license amendment against the criteria of 10CFR51.22 for environmental considerations. The proposed changes do not increase the types and amounts of effluents that may be released offsite, nor significantly increase individual or cumulative occupational radiation exposures. Based on the foregoing, NNECO concludes that the proposed changes meet the criteria delineated in 10CFR51.22(c)(9) for a categorical exclusion from the requirements for an environmental impact statement.

Nuclear Review Board

The Millstone Unit No. 3 Nuclear Review Board has reviewed and concurred with the above determinations.

Marked-Up and Retyped Technical Specification Pages

The marked-up and retyped technical specification pages are provided in Attachments 1 and 2, respectively. These pages reflect the currently issued version of the technical specifications. They do not include changes previously proposed in submittals dated March 23, 1994,⁽¹¹⁾ April 14, 1994,⁽¹²⁾ April 18, 1994,⁽¹³⁾ and

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- (11) J. F. Opeka letter to the U.S. Nuclear Regulatory Commission, "Millstone Nuclear Power Station - Unit No. 3, Proposed Revision to Technical Specification, Area Temperature Monitoring," dated March 23, 1994.
- (12) J. F. Opeka letter to the U.S. Nuclear Regulatory Commission, "Millstone Nuclear Power Station, Unit No. 3, Proposed Revision to Technical Specifications, Response Times for the Reactor Trip System and Engineered Safety Features Actuation System Instrumentation, Additional Information (TAC NO. 82949)," dated April 14, 1994.
- (13) J. F. Opeka letter to the U.S. Nuclear Regulatory Commission, "Millstone Nuclear Power Station, Unit No. 3, Proposed Revision to Technical Specifications, Area Temperature Monitoring Surveillance Requirements," dated April 18, 1994.

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May 6, 1994.⁽¹⁴⁾ Therefore, NNECO suggests that the NRC Staff check with NNECO for continuity with the Millstone Unit No. 3 Technical Specifications prior to issuance.

Schedule for NRC Approval and Issuance

This request is not necessary for continued plant operation, as such no specific schedule for approval and issuance is requested. However, we request issuance of the license amendment at your earliest convenience with the amendment effective as of the date of issuance, to be implemented within 30 days of the date of issuance.


In accordance with 10CFR50.91(b), we are providing the State of Connecticut with a copy of this amendment.

Should you have any questions regarding this submittal, please contact Mr. R. G. Joshi at (203) 665-3844.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

FOR: J. F. Opeka
Executive Vice President

BY: 
E. A. DeBarba
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, & 3

Mr. Kevin T. A. McCarthy, Director
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(14) J. F. Opeka letter to the U.S. Nuclear Regulatory Commission, "Millstone Nuclear Power Station, Unit No. 3, Proposed Revision to Technical Specifications, Reactor Trip System Instrumentation Surveillance Requirements - Functional Unit 21, Reactor Trip Bypass Breakers," dated May 6, 1994.

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Subscribed and sworn to before me

this 2nd day of June, 1994

Ruth J. Dietrich

Date Commission Expires: 3/31/95