



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 71

TO FACILITY OPERATING LICENSE NO. DPR-21

NORTHEAST NUCLEAR ENERGY COMPANY

MILLSTONE NUCLEAR POWER STATION, UNIT 1

DOCKET NO. 50-245

1.0 INTRODUCTION

By letter dated September 10, 1993, as supplemented November 12, 1993, Northeast Nuclear Energy Company (NNECO) proposed changes to the Technical Specifications (TS) for the Millstone Nuclear Power Station, Unit 1. The amendment proposes removing the snubber visual examination schedule in the existing TS and replacing it with a refueling outage based visual examination schedule as shown in Table 4.7-2, "Snubber Visual Inspection Interval," of Enclosure B to Generic Letter (GL) 90-09, "Alternate Requirements for Snubber Visual Inspection Intervals and Corrective Actions." The November 12, 1993, letter provided clarifying information that did not change the initial proposed no significant hazards consideration determination.

2.0 EVALUATION

The snubber visual examination schedule in the existing TS, is based on the permissible number of inoperable snubbers found during the visual examination. Because the existing snubber visual examination schedule is based only on the absolute number of inoperable snubbers found during the visual examination irrespective of the total population of snubbers, licensees with a large snubber population find the visual examination schedule excessively restrictive. The purpose of the alternative visual examination schedule is to allow the licensee to perform visual examinations and corrective actions during plant outages without reduction of the confidence level provided by the existing visual examination schedule. The new visual examination schedule specifies the permissible number of inoperable snubbers for various snubber populations. The basic examination interval is the normal fuel cycle up to 24 months. This interval may be extended to as long as twice the fuel cycle or reduced to as small as two thirds of the fuel cycle depending on the number of unacceptable snubbers found during the visual examination. The examination interval may vary by  $\pm 25$  percent to coincide with the actual outage.

In the event one or more snubbers are found inoperable during a visual examination, the present TS allow continued reactor operation only during the 72 hours following such determination unless the snubber is replaced sooner, made operable, or an engineering evaluation determines the supported system/component to be operable with the inoperable snubber. If the above

requirements cannot be met, an orderly shutdown shall be initiated and the reactor shall be in the Cold Shutdown or Refuel Condition within 36 hours. These requirements will remain in the TS; however, the permissible number of inoperable snubber(s) and the subsequent visual examination interval will now be determined in accordance with the new visual examination schedule (Table 4.7-2 of GL 90-09 dated December 11, 1990). As noted in the guidance for this line item TS improvement, certain corrective actions may have to be performed depending on the number of inoperable snubbers found. All requirements for corrective actions and evaluations associated with the use of visual examination schedule and stated in the footnotes 1 through 6, (Table 4.7-2 of GL 90-09) shall be included in the TS.

In the September 10, 1993, letter, NNECO stated that it is differing slightly from the Standard Technical Specification wording presented in Enclosure B. Specifically, NNECO stated that:

In Section 4.6.I.1 (4.7.9.b of GL 90-09, Enclosure B), Millstone Unit No. 1 will divide the total population by category instead of type for visual inspections. This will allow all 120 snubbers to be treated as one population for visual inspections. A similar change was approved by the Staff for the Joseph M. Farley Nuclear Plant.

Also in Section 4.6.I.1, the proposed change would allow NNECO to utilize the results of inspections performed in 1992 in conjunction with Technical Specification Table 4.6-1 as a baseline for determining the current inspection interval, rather than using the interval which is in effect at the time this amendment is issued. A similar change was approved by the Staff for Millstone Unit No. 3.

Due to the small number of snubbers at Millstone Unit No. 1, Table 4.6-1 only addresses snubber populations of up to 150.

In Section 4.6.I.2, NNECO did not include the statement regarding operability of snubbers connected to an inoperable hydraulic fluid reservoir. Millstone Unit No. 1 does not utilize such a system. Additionally, because Section 3.6 of the Millstone Unit No. 1 Technical Specifications does not have ACTION statements, a reference to the requirements of Section 3.6.I was made instead of "ACTION requirements."

Finally, Note 1 of Table 4.6-1 was reworded to remove the phrase: "the licensee," and Note 6 was revised to reference the correct section of Millstone Unit No. 1 Technical Specifications.

In a letter dated November 12, 1993, NNECO provided additional information concerning the differences between the standard TS wording and NNECO's proposed changes.

NNECO proposed to divide the total population by category instead of type for visual inspections. This will allow all 120 snubbers to be treated as one population for visual inspections. NNECO indicated with the small number of snubbers at Millstone Unit 1 (26 Pacific Scientific, 42 Grinnel, and 52 Bergen Patterson), it would be an unnecessary administrative burden maintaining three separate surveillance intervals. By treating the 120 snubbers as one population, NNECO eliminates the possibility of having three separate surveillance intervals for the small groups of snubbers. Since NNECO will continue to visually inspect all the snubbers per Table 4.7-2 of GL 90-09 and due to the small number of snubbers used at Millstone Unit 1, the NRC staff has concluded that treating all the Millstone Unit 1 snubbers as one population does not significantly reduce the margin of safety of any system or component which the installed snubbers protect and is, therefore, acceptable.

NNECO proposed to utilize the results of inspections performed in 1992 in conjunction with TS Table 4.6-1 as a baseline for determining the current inspection interval, rather than using the interval which is in effect at the time this proposed TS change is issued. The next snubber inspection (both visual and functional) will be performed during the cycle 14 refueling outage which is scheduled to begin January 15, 1994. The maximum time limit for the current surveillance interval will be exceeded on January 17, 1994. Without the change in the TS wording, an unplanned outage which delays the start of the refueling outage for several days would require NNECO to either obtain regulatory relief to remain in operation beyond January 17, 1994, or to shut down the plant solely to perform visual inspections. Past results from the 1992 and previous visual surveillances would support a doubling of the surveillance interval in accordance with the table provided in GL 90-09. Therefore, there is negligible safety risk associated with this deviation from the GL which will only extend the surveillance interval by at most a matter of days. The NRC staff finds this change acceptable.

NNECO did not include the statement regarding operability of snubbers connected to an inoperable hydraulic fluid reservoir since Millstone Unit 1 does not utilize such a system. The NRC staff finds this change acceptable but notes that if Millstone Unit 1 implements this type of system in the future, NNECO must submit the appropriate TS change.

NNECO proposed: (1) to address snubber populations of up to 150, (2) to reword Note 1 of Table 4.6-1 to remove the phrase: "the licensee," (3) to revise Note 6 to reference the correct section of the TS, and (4) reference the requirements of Section 3.6.I instead of "Action requirements" in Section 4.6.I.2 since the Millstone Unit 1 TS do not have Action statements. The NRC staff finds these changes acceptable.

In addition, NNECO proposed to revise the functional testing interval requirements in Section 4.6.I.3 from 18 months to 24 months, as allowed by GL 91-04, "Changes in Technical Specification Surveillance Intervals to Accommodate a 24-month Fuel Cycle." Historical snubber performance at Millstone Unit 1 demonstrates that significant snubber degradation is not occurring for intervals less than five years. The Millstone Unit 1 Snubber

Service Life Program monitors the service life of hydraulic and mechanical snubbers to ensure that the service life is not exceeded between surveillance intervals. The change to the functional testing interval is essentially a change to the service life monitoring interval. Since snubbers are rebuilt or replaced before they reach the end of their anticipated service life, the effect on safety from extending the functional test interval from 18 to 24 months would be negligible. NNECO currently tests 10% of the total of each type of snubber, hydraulic and mechanical, in use in the plant at least once per 18 months. NNECO has proposed maintaining the same sample size for the 24 month surveillance interval. Normally the staff would accept an increase of the functional testing interval to 24 months only if the sampling population is also increased from 10% to 14%. However, the NRC staff has concluded that the change in surveillance interval to 24 months and maintaining the 10% sample size is acceptable for Millstone 1 based on 1) the small population of snubbers at Millstone Unit 1 (120) and the negligible safety impact increasing the sample size (to correspond to the increase in surveillance interval (3-4%)) would have on safety, and 2) the snubbers are rebuilt or replaced before they reach the end of their anticipated service life (Millstone Unit 1 Snubber Service Life Program). Further, the reduction in the margin of safety due to the increase in the surveillance interval is expected to be offset by reducing the number of shutdowns and potential challenges to safety systems that would be required to conduct functional testing on an 18-month basis.

NNECO has proposed changes to Technical Specification 4.6.I and the associated Bases that are consistent with the guidance provided in GL 90-09 for the replacement of the snubber visual examination schedule with Table 4.7-2 (including footnotes 1 through 6) of the GL 90-09. On the basis of its review of this matter, the NRC staff finds that the proposed changes to the TS for Millstone Unit 1 are acceptable.

### 3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Connecticut State official was notified of the proposed issuance of the amendment. The State official had no comments.

### 4.0 ENVIRONMENTAL CONSIDERATION

The amendment changes surveillance requirements. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (58 FR 50969). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

## 5.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

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Date: December 28, 1993