



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 103 TO FACILITY OPERATING LICENSE NO. DPR-21
NORTHEAST NUCLEAR ENERGY COMPANY
MILLSTONE NUCLEAR POWER STATION, UNIT NO. 1
DOCKET NO. 50-245

1.0 INTRODUCTION

By letter dated November 7, 1984, the Northeast Nuclear Energy Company (NNECO, the licensee) requested a license amendment that would modify the December 1984 completion date for Item III.D.3.4, Control Room Habitability, specified in the Commission's March 14, 1983 Order Confirming Licensee Commitments on Post-TMI Related Issues. The proposed change would (1) remove the required completion date of December 1984, (2) replace the completion date with "To Be Determined," and (3) indicate that Item III.D.3.4 is no longer considered part of the Confirmatory Order. The completion date for the modifications will be developed in conjunction with the Integrated Safety Assessment Program (ISAP) which is scheduled to be completed by November 1985 for Millstone Unit 1.

A Notice of Consideration of Issuance of Amendment to License and Proposed No Significant Hazards Consideration Determination and Opportunity for Hearing related to the requested action was published in the Federal Register on December 4, 1984 (49 FR 47462). No request for hearing or comments were received.

2.0 BACKGROUND

By letter dated December 28, 1983, NNECO proposed that the NRC grant deferral of several NRC-required modifications for the purpose of expanding the integrated assessment conducted under the Systematic Evaluation Program (SEP) which would address outstanding regulatory requirements and plant improvements that were not originally within the scope of the SEP. The results of this evaluation would serve as the principal basis for an integrated implementation schedule.

One of the specific projects for which deferral was requested was NUREG-0737 (Clarification of TMI Action Plan Requirements) Item III.D.3.4, Control Room Habitability. The licensee's December 28, 1983 submittal provided a basis for requesting deferral of the implementation of modifications associated with Item III.D.3.4 and provided justification for continued operation in the interim.

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By letter dated April 5, 1984, and on the basis of the evaluation presented below, the NRC staff concluded that deferral of the Control Room Habitability modifications for the 1984 fueling outages with a corresponding one cycle delay in the overall completion schedule were justified and acceptable. The staff also informed NNECO that a request for a license amendment to modify the March 14, 1983 Confirmatory Order would be required.

3.0 EVALUATION

The TMI Action Plan, NUREG-0737, Item III.D.3.4, requires that control room operators be adequately protected against the accidental release of toxic and radioactive gases to ensure that the plant can be safely operated and shut down under such design basis conditions.

The licensee evaluated Millstone Unit 1 against the applicable criteria defined for this issue. As result of that review, the licensee concluded that Millstone Unit 1 would need new, redundant ventilation and filtration systems for the control room. The licensee committed to install these new systems by December 31, 1984.

The licensee has completed preliminary design work and ordered the major components for these systems. However, the licensee has noted that space limitations in the vicinity of the control room and the design requirements for a halon fire suppression system for the control room will require substantial additional resources. Moreover, ongoing evaluations related to ventilation issues from SEP will likely affect the design conditions for this system and, therefore, exacerbate the resource burden for this issue.

The licensee believes that these new systems would not otherwise be needed except for the conservative nature of the reevaluation criteria, particularly, the source term and meteorological conditions. The licensee's calculations have shown that without the control room habitability modifications, control room personnel exposure would be less than 5 rem whole body dose. Additionally, thyroid exposures would be less than the 30 rem criterion if operators remain on self-contained breathing apparatus when required. The staff notes that as a result of the review of NUREG-0737 Item III.D.3.4, NNECO provided additional self-contained breathing apparatus for the control room operators in accordance with staff criteria. Thus, there is assurance that adequate breathing air supplies are available to maintain operator exposures within NRC guidelines.

The licensee has identified chlorine as a potential toxic gas hazard at Millstone Unit 1. However, in the unlikely event of a chlorine release, the control room ventilation system can be isolated and the use of self-contained breathing apparatus would provide adequate protection for control room operators. As noted above, an adequate bottled air supply has already been provided.

Based upon the above, the licensee has concluded that: (1) the control room operators can be adequately protected against the effects of radioactive and toxic gases by maintaining doses within the guidelines of 10 CFR Part 50 Appendix A, General Design Criterion 19, and the plant can be safely

shut down from the control room under accident conditions; (2) deferral of installation of upgraded control room habitability systems will have no impact on existing safety analyses.

The licensee also proposes that the completion date for the modifications be developed in conjunction with the ISAP which is scheduled to be completed by November 1985 for Millstone Unit 1. At the completion of ISAP, a "living schedule" will be developed which will be incorporated into the license by an amendment. If during the course of the review the staff determines that a more expeditious schedule is needed for a particular item, the schedule will be appropriately modified.

The staff has reviewed the bases for deferral of the control room modifications provided in the November 7, 1984 letter and concludes that the licensee's proposal to modify the March 14, 1983 Confirmatory Order to (1) remove the required completion date of December 1984, (2) replace the completion date with "To Be Determined," and (3) indicate that Item III.D.3.4 is no longer considered part of the Confirmatory Order, is acceptable. The staff also concludes that development of an overall completion date in conjunction with the ISAP for any planned modifications to the control room ventilation systems is acceptable.

4.0 ENVIRONMENTAL CONSIDERATION

This amendment involves a change in the installation or use of facility components located within the restricted area as defined in 10 CFR Part 20. The 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 this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this 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 this amendment.

5.0 CONCLUSION

The staff 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, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

6.0 ACKNOWLEDGMENT

This safety evaluation was prepared by F. Akstulewicz.

Dated: July 1, 1985