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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 38

TO FACILITY OPERATING LICENSE NO. NPF-49

NORTHEAST NUCLEAR ENERGY COMPANY, ET AL.

MILLSTONE NUCLEAR POWER STATION, UNIT NO. 3

DOCKET NO. 50-423

1.0 INTRODUCTION

By application for license amendment dated May 9, 1989, as supplemented by letter dated June 16, 1989, Northeast Nuclear Energy Company, et al. (the licensee), requested changes to Millstone Unit 3 Technical Specifications (TS) as follows: (1) TS Table 3.3-6, "Radiation Monitoring for Plant Operation," would be changed to allow containment purge and exhaust isolation area monitors (RE41 and RE42) to be inoperable during performance of the containment integrated leak rate test (ILRT), (2) TS Table 3.3-11, "Fire Detection Instruments" in the electrical penetration area (Elevation 24' 6") be operable during the ILRT and (3) TS 3.7.12.2, "Spray and/or Sprinkler Systems" and TS Table 3.7-4, "Fire Hose Stations" would be changed to allow the inoperability of the containment cable penetration area sprinkler system and containment fire hose stations during the ILRT.

2.0 DISCUSSION

Millstone Unit 3 TS 4.6.1.2 and Appendix J to 10 CFR Part 50 requires that Northeast Nuclear Energy Company perform a Type A, ILRT, for the primary containment at the specified test interval. While preparing to perform the ILRT during the Cycle 2/Cycle 3 refueling outage, the licensee identified two areas where incompatibility exists between the requirements to perform the ILRT and other TS requirements to maintain certain components and systems operable during the ILRT. The following areas of inconsistency were identified by the licensee:

1. Radiation Monitoring - TS Table 3.3-6, Item 1a, requires that the containment area purge and exhaust isolation radiation monitors be maintained operable (in all modes). If the subject monitors become inoperable, the containment exhaust and purge valves must be maintained in the closed position per Action Statement 26.

   The licensee has proposed that ACTION Statement 26 be revised to remove the requirements that the containment purge and exhaust isolation area radiation monitors (RE41 and RE42) be operable during the Type A containment ILRT.

During a Type A containment ILRT, the Millstone Unit No. 3 containment is pressurized to the calculated design basis accident containment pressure of 54.1 psia to verify containment leak tightness. The pressurization path is through the purge air supply piping, Containment Penetration Z86. The containment purge and exhaust system is interlocked with radiation monitoring instrumentation located inside containment. Since the radiation monitoring instrumentation is not designed to withstand a pressure of 54.1 psia, they will be removed from containment for the duration of the ILRT. Per Technical Specification 3.3.3.1, which references TS Table 3.3-6, the purge and exhaust valves must be isolated with less than minimum radiation monitoring instrumentation channels available. However, opening the purge air supply valve is required to conduct the ILRT and satisfy 10 CFR Part 50, Appendix J. Therefore, a revision to ACTION Statement 26 has been proposed to remove the requirement that the RE41 and RE42 radiation monitors be operable during the containment ILRT.

2. Fire Protection - TS 3.7.12.2, Item K and TS Table 3.7-4 requires the containment cable penetration area sprinkler system and the containment fire hose stations, to be operable, respectively. The licensee has indicated that the containment fire protection water system that enters containment at Penetration Z56 must be drained and vented to meet the provisions of the Millstone Unit No. 3 Final Safety Analysis Report (FSAR) Section 6.2.6 and the requirements of 10 CFR Part 50, Appendix J for performance of the ILRT.

   Accordingly, the licensee has proposed that a footnote be added to Technical Specification Section 3.7.12.2 and TS Table 3.7-4 which exempts the containment cable penetration area sprinkler system and containment fire hose stations from operability requirements during Type A containment ILRT. To partially mitigate the proposed inoperability of the containment fire suppression systems, the licensee has proposed a footnote to Table 3.3-11 to add a requirement that fire detection instruments in the electrical penetration area, Elevation 24'6", be operable during the performance of Type A containment ILRT. All other fire detection instruments located within the containment area would not be required to be operable during the performance of a Type A containment ILRT. At the present time, TS Table 3.3-11 does not require the operability of any fire protection instrumentation, inside containment, during the ILRT.

3.0 EVALUATION

With regard to the proposed changes to the TS, the licensee has proposed suitable compensatory measures to allow radiation monitors RE41 and RE42, and the identified fire suppression equipment to be inoperable during the ILRT as follows:

- For the radiation monitors, the compensatory measure is to obtain and analyze periodic "grab samples" to assure that no radioactive releases are in progress. In the event of a radioactive release, inside containment, the purge and exhaust lines could be manually closed.

- For the fire suppression equipment, the compensatory measure is to require the operability of other fire detection instruments in the electrical penetration area. In the event of a fire, the fire water system could be unisolated.

The above remedial actions are judged to be adequate to allow the inoperability of subject equipment without any significant increase in risk.

Moreover, since the duration of the ILRT is fairly short, approximately 48 hours, the overall risk is relatively low. Accordingly, the proposed changes to the TS are acceptable.

4.0 EMERGENCY CIRCUMSTANCES

The licensee's June 16, 1989 presents the following with regard to justification of the need for emergency consideration of the May 9, 1989 application:

> "Presently, Millstone Unit No. 3 is in Mode 5 since the plant was shut down for a refueling outage on May 11, 1989. Emergency authorization is required to permit timely resumption of operation (i.e., criticality) which is currently scheduled for July 3, 1989. Prior to the resumption of operation, a Type A containment ILRT is required to be performed during this outage, and is presently scheduled to commence on June 27, 1989. To support this schedule, the subject amendment would need to be issued prior to the start of the ILRT. As stated above, the upcoming containment ILRT will be conducted for the first time since Millstone Unit No. 3 received its full-power operating license in January 1986. Only recently, during the final preparation for the subject test, NNECO identified Technical Specification changes, described in the May 9, 1989 application, that are required in order to carry out the containment ILRT. Following a consultation with NRC staff, NNECO expeditiously processed a proposed change to the Millstone Unit No. 3 Technical Specifications to support the containment ILRT and submitted a license amendment request to the NRC staff by letter dated May 9, 1989. NNECO made every effort to have this license amendment request processed under normal circumstances. In addition, according to the Federal Register Notice dated May 31, 1989 (54 FR 23317), the 30-day time limit for the comment period on this license amendment request expires on June 30, 1989."

We conclude that failure to grant the emergency license amendment would delay resumption of operation of Millstone Unit 3.

Based upon the above, we conclude that the licensee has adequately addressed the standards of 10 CFR 50.91(a)(5) with regard to demonstrating the need for an emergency license amendment. We further conclude that the licensee has not abused the emergency provision by failing to make timely application for the amendment.

5.0 FINAL NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

The Commission's regulations in 10 CFR 50.92 state that the Commission may make a final determination that a license amendment involves no significant hazards considerations, if operation of the facility, in accordance with the amendment would not:

(1) Involve a significant increase in the probability or consequences of any accident previously evaluated; or

(2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or

(3) Involve a significant reduction in a margin of safety.

This amendment has been evaluated against the standards in 10 CFR 50.92. It does not involve a significant hazards consideration because the changes would not:

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

   The Type A ILRT is performed in Mode 5 with no personnel in containment. There are no design basis accidents which occur in Mode 5 and rely on either containment purge and exhaust radiation monitoring or the inside containment fire detection/suppression equipment. The only accidents which can occur in Mode 5 and require these functions are a loss of shutdown cooling and an inside containment fire.

   Sufficient time exists following a loss of shutdown cooling for the operator to manually isolate the valves and prevent any releases from containment. Operator action is based on indications of a loss of shutdown cooling event. Thus, the change does not impact the consequences of a loss of shutdown cooling event.

   During depressurization of the containment, grab samples will be obtained to verify that a radioactivity release is not occurring. Thus, it will limit the potential radiological consequences of the ILRT to an acceptable level.

   The fire detection and suppression equipment is credited only in fire scenarios. The changes will permit the containment fire water isolation valves to be closed in order to measure containment leakage, but will require the fire detection instrumentation in the electrical penetration area to be operable. The operating fire detection components ensure that the operators will be alerted to a fire inside containment. As stated above, the plant procedure governing the Type A containment ILRT will require the cancellation of the ILRT and the opening of containment water isolation valves if both a smoke detection alarm is received and if any energized component/system operating within the containment trips simultaneously for any unknown reason during the test. Action statements within the containment leakage rate test procedure will allow the plant to take appropriate actions (open fire isolation valves) before any major fire damage occurs. Thus, the change does not impact the consequences of a postulated inside containment fire.

   The containment purge and exhaust radiation monitoring equipment and containment fire detection/suppression system do not have the potential to initiate any previously analyzed accident. Operator action to isolate the purge and exhaust system or unisolate the containment fire water system, based on available indication, will negate the impact on the consequences of having these systems inoperable. For these reasons, the changes to the operability requirements of these systems do not increase the probability or consequence of any previously analyzed accident.

2. Create the possibility of a new or different kind of accident from any previously analyzed. The changes do not alter the way the plant is operated and only affects the containment ILRT. The change does not introduce new failure modes. For these reasons, the change does not have the potential to create a new type of accident from that previously analyzed.

3. Involve a significant reduction in a margin of safety. The changes do not impact any of the protective boundaries. The plant operators will be able to either isolate the containment purge and exhaust system or unisolate the containment fire water system (during the ILRT) based on available instrumentation. Thus, these safety functions will not be impacted by the change. The change does not increase the consequences of any design basis event. For these reasons, the change does not reduce the margin of safety.

Accordingly, the Commission has determined that the application for amendment, dated May 9, 1989, as supplemented by letter dated June 16, 1989, involves no significant hazards consideration.

6.0 STATE CONSULTATION

In accordance with the Commission's regulations, efforts were made to contact the Connecticut State representatives. The state representative was contacted and had no comments.

7.0 ENVIRONMENTAL CONSIDERATION

This amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. We have 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 staff has previously published a proposed finding that the amendment involves no significant hazards consideration and there has been no public comment on such finding. 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.

8.0 CONCLUSION

We have 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 (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.

Dated: June 28, 1989

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