



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 42

TO FACILITY OPERATING LICENSE NO. DPR-21

NORTHEAST NUCLEAR ENERGY COMPANY

MILLSTONE NUCLEAR POWER STATION, UNIT NO. 1

DOCKET NO. 50-245

INTRODUCTION

By letter October 6, 1989, Northeast Nuclear Energy Company (NNECO or the licensee) submitted a request to change the Millstone Nuclear Power Station, Unit No. 1, Technical Specifications (TS). The request would change the TS by reducing the reporting requirements in Section 3.6.C.1a for iodine spiking from a short-term report to inclusion in the Annual Report (TS Section 6.9.1.5) and by eliminating the plant shutdown requirements if primary coolant activity limits are exceeded for 800 hours in a 12-month period. These changes are in response to NRC Generic Letter 85-19, "Reporting Requirements on Primary Coolant Iodine Spikes," dated September 27, 1985.

EVALUATION

Generic Letter 85-19 states in part:

"As part of our continuing program to delete unnecessary reporting requirements, we have reviewed the reporting requirements related to primary coolant specific activity levels, specifically primary coolant iodine spikes. We have determined that the reporting requirements for iodine spiking can be reduced from a short-term report (Special Report or Licensee Event Report) to an item which is to be included in the Annual Report. The information to be included in the Annual Report is similar to that previously required in the Licensee Event Report but has been changed to more clearly designate the results to be included from the specific activity analysis and to delete the information regarding fuel burnup by core region.

9001050105 891221
PDR ADOCK 05000245
P PDC

In our effort to eliminate unnecessary Technical Specification requirements, we have also determined that the existing requirements to shut down a plant if coolant iodine activity limits are exceeded for 800 hours in a 12-month period can be eliminated. The quality of nuclear fuel has been greatly improved over the past decade with the result that normal coolant iodine activity (i.e. in the absence of iodine spiking) is well below the limit. Appropriate actions would be initiated long before accumulating 800 hours above the iodine activity limit. In addition, 10 CFR 50.72(b)(1)(ii) requires the NRC to be immediately notified of fuel cladding failures that exceed expected values or that are caused by unexpected factors. Therefore, this Technical Specification limit is no longer considered necessary on the basis that proper fuel management by licensees and existing reporting requirements should preclude ever approaching the limit."

Enclosed with the Generic Letter were model TS showing the revision that may be used in a submittal of proposed TS changes.

In accordance with Generic Letter 85-19 described above, NNECO proposed to delete the following paragraph from Millstone Unit 1 TS Section 3.6.C.1.a:

"When the reactor is in the STARTUP/HOT STANDBY or RUN mode, if the reactor coolant specific activity is greater than 0.2 microcuries per gram DOSE EQUIVALENT I-131 but less than or equal to 4.0 microcuries per gram, operation in that mode may continue for up to 48 hours provided that the cumulative operating time under these circumstances does not exceed 800 hours in any consecutive 12-month period."

NNECO believes the above modification meets the intent of Generic Letter 85-19 because the original intent of TS 3.6.C.1.a was to provide restrictive guidelines for the operation of Millstone Unit No. 1 with a reactor coolant specific activity between 0.2 and 4.0 microcuries per gram DOSE EQUIVALENT I-131. These guidelines were intended to prevent operation for an extended period of time with poor fuel performance (i.e., clad rupture). NNECO concludes that the above TS modification is acceptable because fuel performance at Millstone Unit 1 has improved significantly since the initial cycles of plant operation. Additionally, NRC regulations (i.e., 10 CFR 50.72(b)(1)(ii)) require NRC notification of any event or condition during operation that results in the condition of the nuclear power plant, including its principal barriers, being seriously degraded. This would bring attention to a fuel performance problem long before exceeding the above-mentioned limit of 0.2 greater than DOSE EQUIVALENT I-131 greater than 4.0 for 800 hours per year. The TS will still provide the 48 hour limit for reactor coolant specific activity greater than 0.2 microcuries per gram DOSE EQUIVALENT I-131, while deleting previously cumulative annual operating time limits. The current requirement to be in the Cold Shutdown or the Refuel Condition within 24 hours, if the reactor coolant specific activity is greater than 0.2 microcuries per gram DOSE EQUIVALENT I-131 for longer than 48 hours or greater than 4.0 microcuries per gram DOSE EQUIVALENT I-132, remains unchanged.

lastly, TS 6.9.1.5(b) of the Administrative Controls Section is being proposed to reflect the requirements of Generic Letter 85-19 concerning Annual Reports. This proposed section is identical to the NRC Sample Technical Specifications contained in the Generic Letter, and outlines the information to be included in the Annual Reports, should the primary coolant exceed the limits of Specification 3.6.C.1.

The staff concludes that the proposed TS changes meet the intent and guidance of the Generic Letter and the safety requirements for continued iodine activity monitoring. The staff finds the proposed TS changes to be acceptable.

ENVIRONMENTAL CONSIDERATION

This amendment changes a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and also relates to changes in reporting requirements. 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) and (10). 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.

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: December 21, 1989

Principal Contributor: Michael Boyle