



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 53

TO FACILITY OPERATING LICENSE NO. NPF-49

NORTHEAST NUCLEAR ENERGY COMPANY, ET AL.

MILLSTONE NUCLEAR POWER STATION, UNIT NO. 3

DOCKET NO. 50-423

INTRODUCTION

By application for license amendment dated July 20, 1990, Northeast Nuclear Energy Company, et al. (the licensee), requested changes to Millstone Unit 3 Technical Specifications (TS).

The proposed amendment would modify TS 3/4.6.6.1, "Supplemental Leak Collection and Release System," (SLCRS), to incorporate a revised SLCRS flow rate.

DISCUSSION AND EVALUATION

Millstone Unit 3 Technical Specification (TS) 4.6.6.1.a requires that each of two SLCRS demonstrate a flow rate of 9,500 cfm  $\pm$  10% every 31 days on staggered test basis.

On July 16, 1990, the 'B' SLCRS fan failed its monthly performance test (Surveillance 4.6.6.1.a) with 85 percent of 9,500 cfm. The minimum required flow per Surveillance 4.6.6.1.a is 9,500 cfm  $\pm$  10 percent. The 'B' SLCRS train was declared inoperable, and the plant entered a 7-day ACTION statement per the requirements of TS 3.6.6.1. On July 20, 1990, the licensee submitted an application for license amendment and request for temporary waiver concerning the requirements of TS 3/4.6.6.1. The application for license amendment would incorporate a revised SLCRS flow rate, based upon testing completed on July 20, 1990, in TS 4.6.6.1.a, 4.6.6.1.b.1 and 3, 4.6.6.1.d.1, 4.6.6.1.e and 4.6.6.1.f.

Section 6.5.1.2 of the Millstone Unit 3 FSAR indicates that:

The SLCRS system is designed to maintain a 0.25 inches [water gage] wg negative pressure in the containment enclosure building and associated contiguous structures (auxiliary building, ESF building, main steam valve building, and hydrogen recombiner building) during LOCA. This is accomplished by exhausting air from these areas passing it through a charcoal filter assembly before releasing to atmosphere.

One purpose of the Surveillance Requirements of TS 3/4.6.6.1 is to demonstrate that SLCRS will attain adequate flow to produce the required 0.25 inches wg negative pressure within 60 seconds following a LOCA (50 seconds from a system start signal). The licensee indicated in its July 20, 1990, letter that the required SLCRS flow rate of 9,500 cfm  $\pm$  10% is based upon blower name plate data rather than test requirement's flow rate data. On July 20, 1990, the licensee tested the SLCRS and found that a flow rate of 7,040 scfm would produce a 0.25 inches wg negative pressure in less than 30 seconds. The licensee proposed a SLCRS flow rate of 7,600 cfm to 9,800 cfm to replace the 9,500 cfm  $\pm$  10% requirement of TS 3/4.6.6.1. Based on the SLCRS test, the NRC staff issued a Temporary Waiver of Compliance (TWC) regarding TS 3.6.6.1 on July 23, 1990, to be effective until the proposed license amendment is issued.

The licensee has demonstrated, by testing, that a flow rate of 7,040 scfm will satisfy the design basis of the SLCRS. We conclude that a SLCRS flow rate of 9,500 scfm  $\pm$  10% is excessively conservative. The proposed flow rate range of 7,600 to 9,800 cfm will assure operability of the SLCRS with regard to air flow and is acceptable. Accordingly, the proposed change to TS 3/4.6.6.1 is acceptable.

#### EXIGENT CIRCUMSTANCES

The Commission's regulations in 10 CFR 50.91, contain provisions for issuance of amendments when the 7-day public notice period cannot be met. One type of special exemption is an exigency. An exigency is a case where the staff and licensee need to act promptly, but failure to act promptly does not involve a plant shutdown, derating, or delay in startup. In this case, the need to act quickly was due to entrance into a 7-day action statement which was resolved with issuance of the TWC.

Under such circumstances, the Commission notifies the public in one of two ways: by issuing a Federal Register notice providing an opportunity for hearing and allowing at least two weeks for prior public comments, or by issuing a press release discussing the proposed changes, using the local media. In this case, the Commission used the first approach.

The licensee submitted the request for amendment on July 20, 1990. It was noticed in the Federal Register on August 6, 1990 (55 FR 31917), at which time the staff proposed a no significant hazards consideration determination. There were no public comments in response to the notice published in the Federal Register.

#### 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 an 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.

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

In the event of a DBA, such as a loss-of-coolant accident (LOCA), activity is released to the containment atmosphere. The SLCRS collects most of the primary containment leakage from the buildings contiguous to the containment, filters it, and releases it to the atmosphere through the Millstone Unit No. 1 stack. The SLCRS is not normally in operation. The SLCRS starts on a safety injection signal and is required by Technical Specification 4.6.6.1.d.3 to be able to draw -0.25-inch wg in the annulus within 50 seconds after a start signal. In the accident analysis for Millstone Unit No. 3 (FSAR Section 15.6.5.4), it is assumed that the SLCRS will be able to achieve -0.25-inch wg pressure in the annulus within 60 seconds. Until this time, it is assumed that all of the containment leakage is an unfiltered ground level release. After the negative pressure is attained, only a small fraction of containment leakage (e.g., secondary containment bypass leakage) is not assumed to be processed by the SLCRS. With the reduced flow rate, the SLCRS will still be capable of meeting the existing Technical Specification surveillance requirements. Therefore, the proposed change will have no impact on the ability of the SLCRS to meet the performance requirements as assumed in the design basis analysis.

The proposed revised flow rate will not change the assumptions of the radiological consequence analysis concerning the filter efficiencies. Therefore, the proposed change will not adversely affect the calculated off-site doses. In addition, the proposed change does not have an impact on the probability of an accident.

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

The proposed change will have no impact on plant response. No physical design changes are proposed. Only the minimum flow rate specified in the surveillance requirement is affected. As discussed above, even at the lower flow rate, the SLCRS will perform as assumed in the design basis analysis. There are no new failure modes introduced.

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

The proposed change has no direct impact on any protective boundaries. As discussed above, the proposed change will not affect the ability of the SLCRS to perform its safety function as assumed in the design basis analysis. The proposed change does not affect the consequences of any accident previously analyzed. Therefore, there is no significant reduction in the margin of safety.

Based on the above, the Commission has made a final determination that the proposed amendment involves no significant hazards consideration.

### ENVIRONMENTAL CONSIDERATION

The 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 and changes surveillance 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 Commission has made a final no significant hazards consideration finding with respect to this amendment. 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.

### 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: August 22, 1990

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