SEP 11 1986

Docket No. 50-336

LICENSEE: Northeast Nuclear Energy Company, (NNEC), et.al

FACILITY: Millstone Nuclear Power Station, Units 1 and 2

SUBJECT: SUMMARY OF AUGUST 28, 1986 MEETING WITH THE LICENSEE AND NRC STAFF REGARDING FIRE PROTECTION

On August 28, 1986, the staff met with representatives of the licensee in Room P-114 of the Phillips Building, Bethesda, Maryland. The purpose of the meeting was to discuss a number of fire protection related issues concerning Millstone Units 1 and 2. A list of attendees is enclosed. A summary of the discussions is as follows:

1. Protection of Steel Beams - Diesel Generator Areas:

   The licensee indicated that a structural analysis was underway to assess the consequences of the failure of certain steel beams in the diesel generator rooms, resulting from a fire. If the the beams are required to be protected to assure their structural integrity, the licensee is proposing to use a modified sprinkler system in lieu of conventional "fireproofing." Fireproofing is not feasible because of obstructions near the ceiling.

   The sprinkler system proposed by the licensee would be of a pre-action-type, using rate-of-rise fire detectors and utilizing sprinkler heads which are located to provide protection from a diesel oil exposure fire. Sprinkler heads, located so as to discharge water onto the exposed steel beams, would also be used. The system would be designed to provide .25 GPM/sq. ft. over the floor and .1 GPM/sq. ft. over the exposed steel, with all sprinkler heads flowing in any one diesel generator room. The staff indicated that this level of protection was consistent with previously accepted design concepts, subject to implementation of the design as discussed and demonstration (via sprinkler head discharge characteristics) that water would be sprayed over the length of the exposed steel beam. The staff also suggested that the licensee discuss this design concept with the Region I fire protection engineer.

2. Protection of Structural Steel - Other Locations:

   For other locations where steel columns and beams were not protected against the effects of a fire, the licensee proposed to use a fire hazards analysis which relates the overage fire loading in an area

to the resulting temperature on the ASTM E-119 time-temperature curve. If the temperature on the curve exceeded 1100°F, steel would be protected. The staff responded that this method alone was unacceptable because it would ignore the hazard associated with localized areas containing concentrated quantities of combustible materials. If structural steel subject to such "hot spots" was protected, then the analytical approach described above is consistent with previous staff approvals. The staff made it clear that unless adequate justification was provided, structural steel is required to be protected whenever part of, or framed into, any fire barrier necessary to satisfy staff fire protection requirements and guidelines (Appendix R to 10 CFR Part 50 and Appendix A to BTP APCSB 9.5-1).

3. Water Curtain Between Areas A-13 and A-18:

   The licensee described a proposed water curtain to compensate for an unprotected wall opening. The staff indicated that, subject to the installation of an adequate draft curtain, the proposed system was consistent with previously approved configurations.

4. Water Curtain Between Areas A-2 and A-7:

   The licensee indicated that a previously proposed water curtain would not be installed. Instead, one division of shutdown cables would be enclosed in a 3-hour fire-related cable wrap and that automatic sprinkler protection would be installed to protect MCC-B-61. The staff indicated that this design is consistent with previously approved configurations.

The staff requested a status report on the revised Appendix R compliance reports for Units 1 and 2. The licensee responded that the reports for both units were "in-house" for review and comment. The licensee indicated that the Millstone 1 report would be submitted to the staff in early November and the report for Unit 2 would be submitted shortly thereafter. The staff reiterated the need for a timely submittal to enable a safety evaluation to be prepared prior to the upcoming Appendix R audits - now scheduled for February/ March 1987.

The licensee stated that the Millstone 2 submittal will contain seven new exemption requests. In addition, a new exemption will be submitted for Unit 1, related to the Dresden drywell expansion gap fire.

/s/

D. H. Jaffe, Project Manager
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Enclosure:
List of Attendees

AT

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9/9 /86	9/9 /86	9/10 /86

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Enclosure

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MEETING SUMMARY DISTRIBUTION

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cc: Licensee and Plant Service List