

May 2, 2000

MEMORANDUM TO: James W. Clifford, Chief, Section 2
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

FROM: Victor Nerses, Senior Project Manager, Section 2 */RAI/*
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

SUBJECT: MILLSTONE, UNIT NO. 3, DRAFT REQUEST FOR ADDITIONAL
INFORMATION, SPENT FUEL RE-RACK AMENDMENT (TAC NO.
MA5137)

The enclosed draft request for additional information (RAI) was transmitted by facsimile on May 2, 2000, to Mr. D. Dodson of Northeast Nuclear Energy Company (licensee). Review of the RAI would allow the licensee to determine and agree upon a schedule to respond to the RAI. This memorandum and the enclosure do not convey a formal request for information or represent an NRC staff position.

Docket No. 50-423

Enclosure: Request for additional information on radiological protection regarding the spent fuel pool re-rack amendment

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Project Manager

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DATE	5 / 2 /00

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DRAFT

REQUEST FOR ADDITIONAL INFORMATION ON RADIOLOGICAL PROTECTION REGARDING THE SPENT FUEL POOL RE-RACK AMENDMENT

1. Discuss how the increased number of spent fuel assemblies stored in the Millstone Unit No. 3 SFP will affect the dose rates in any accessible areas below the refueling deck and adjacent to the SFP walls (including any accessible areas below the SFP). State whether the storage of an increased number of spent fuel assemblies in the Millstone Unit No. 3 SFP will necessitate any radiation zoning changes to any of the surrounding areas.
2. Provide a description of any sources of high radiation, other than spent fuel assemblies, that may be in the Millstone Unit No. 3 SFP during any diving operations needed to remove underwater appurtenances and to install the new fuel racks. Discuss what precautions (such as fuel shuffling, removal of high radiation sources, use of TV monitoring, diver tethers, use of physical or visual barriers, etc.) will be used to ensure that the divers will maintain a safe distance from any high radiation sources in the SFP.
3. Discuss the need for any additional lighting in or above the SFP to ensure that both the diver work area is adequately illuminated and the dive tenders above the SFP can maintain visual surveillance of the divers in the SFP at all times.

4. Describe how you plan to monitor the doses received by the divers during the racking operation (e.g., use of extremity or multiple TLDs, alarming dosimeters, remote readout radiation detectors). Describe how you plan to maintain continuous communication with the divers while they are in the SFP.

5. Describe how you plan to survey the portions of the SFP where divers may be used to ensure that you have an accurate dose rate map of these underwater areas. Verify that you will perform updated dose rate surveys in the SFP any time that there is a change in location of the high radiation sources in the SFP.

6. Discuss your plans to use a vacuum to remove any crud or other debris from the floor of the SFP before and during the SFP re-racking project to maintain diver doses ALARA.

7. The re-racking of the SFP will result in storage space for roughly 1100 additional fuel assemblies. Discuss what effect the storage of additional fuel assemblies in the SFP will have on the overall evaporation rate from the SFP area and whether this increased evaporation rate will result in an increase in the amount of gaseous tritium released from the SFP.

8. Discuss how the storage of the additional spent fuel assemblies will affect the releases of radioactive liquids from the plant.