

December 14, 2004

MEMORANDUM TO: Darrell J. Roberts, Chief, Section 2
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

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

SUBJECT: MILLSTONE POWER STATION, UNIT NO. 2, FACSIMILE
TRANSMISSION, DRAFT REQUEST FOR ADDITIONAL INFORMATION
(TAC NO. MC5056)

The attached draft request for additional information (RAI) was transmitted by facsimile on December 14, 2004, to Mr. David. Dodson, Dominion Nuclear Connecticut, Inc. (DNC). This draft RAI was transmitted to facilitate the technical review being conducted by the NRC staff and to support a conference call with DNC in order to clarify certain items in the licensee's submittal. This draft RAI is related to DNC's submittal dated November 3, 2004, regarding a request for a limited exemption from the requirements of 10 CFR 50.68(b)(1). Review of the RAI would allow DNC to determine and agree upon a schedule to respond to the RAI. This memorandum and the attachment do not convey a formal request for information or represent an NRC staff position.

Docket No. 50-336

Enclosure: Draft Request for Additional Information

/RA/

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DRAFT REQUEST FOR ADDITIONAL INFORMATION

MILLSTONE POWER STATION, UNIT NO. 2

DOCKET NO. 50-336

By letter dated November 3, 2004, Dominion Nuclear Connecticut, Inc. (DNC) submitted a request for a limited exemption from requirements of 10 CFR 50.68(b)(1). The NRC has developed the following draft questions during its review of the DNC letter:

1. DNC stated in its exemption request that the critical boron concentration calculations were performed at optimum moderation conditions. The staff requests that DNC provide additional supportive information describing the optimum moderation conditions assumed in these calculations and the basis for the values assumed. Additionally, the staff requests that DNC explain how these values correlate to the design basis allowed temperatures of the MPS2 spent fuel pool.
2. NC stated in its exemption request that the loading of higher enrichment assemblies (i.e. greater than 3.8 weight percent) in the Transnuclear (TN) NUHOMES-32PT Dry Shielded Canister (32PT DSC) was acceptable provided poison rod assemblies (PRAs) were also loaded into the cask for criticality control. The staff requests that DNC provide additional information describing the controls and procedures currently in place to direct the loading of fuel assemblies and PRAs into the cask. Specifically, the staff requests that DNC provide information demonstrating that interim loading and unloading storage configurations are bounded by the analyzed technical specification storage patterns. Please provide a detailed description of the sequential loading of fuel assemblies and PRAs into the 32PT DSC.
3. In response to Criterion 5a, DNC stated that: "The use of PRAs to allow higher enrichments does not alter these [critical] boron concentrations." However, DNC did not provide supporting information to demonstrate that a 32PT DSC loaded with higher enrichment fuel assemblies and PRAs is bounded by a 32PT DSC loaded with 3.8 weight percent fuel assemblies and no PRAs. The staff requests DNC stated in its exemption request that the critical boron concentration calculations were performed at optimum moderation conditions. The staff requests that DNC provide additional supportive information describing the optimum moderation conditions assumed in these calculations and the basis for the values assumed. Additionally, the staff requests that DNC explain how these values correlate to the design basis allowed temperatures of the MPS2 spent fuel pool.
4. DNC stated in its exemption request that the loading of higher enrichment assemblies (i.e. greater than 3.8 weight percent) in the Transnuclear (TN) NUHOMES-32PT Dry Shielded Canister (32PT DSC) was acceptable provided poison rod assemblies (PRAs) were also loaded into the cask for criticality control. The staff requests that DNC provide additional information describing the controls and procedures currently in place to direct the loading of fuel assemblies and PRAs into the cask. Specifically, the staff requests that DNC provide information demonstrating that interim loading and unloading storage configurations are bounded by the analyzed technical specification storage patterns.

Enclosure

Please provide a detailed description of the sequential loading of fuel assemblies and PRAs into the 32PT DSC.

5. In response to Criterion 5a, DNC stated that: "The use of PRAs to allow higher enrichments does not alter these [critical] boron concentrations." However, DNC did not provide supporting information to demonstrate that a 32PT DSC loaded with higher enrichment fuel assemblies and PRAs is bounded by a 32PT DSC loaded with 3.8 weight percent fuel assemblies and no PRAs. The staff requests that DNC provide additional information which demonstrates that a 32PT DSC loaded with 3.8 weight percent enriched fuel assemblies and no PRAs represents the most limiting storage configuration.