UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

December 22, 1999

Glen E. Mowbray
Director for Regulatory Affairs
Naval Nuclear Propulsion Program
Naval Sea Systems Command, Code 08U
2531 Jefferson Davis Highway
Arlington, VA 22242-5160

Dear Mr. Mowbray:

SUBJECT: NAVAL NUCLEAR PROPULSION QUALITY ASSURANCE PROGRAM

On July 29, 1999, the U.S. Nuclear Regulatory Commission (NRC) staff met with representatives of the Naval Nuclear Propulsion Program (NNPP) at the Naval Reactors Office (NR) in Arlington, Virginia, to discuss the disposal of naval spent nuclear fuel (SNF) at the high-level waste repository at Yucca Mountain. A representative of the U.S. Department of Energy-Radioactive Waste Management (DOE-RW) was also present. NNPP staff requested this meeting to discuss the basic aspects of the NNPP quality assurance (QA) program, the review of the QA Program conducted by the DOE-RW Office of Civilian Waste Management (OCRWM) in 1998, and the resulting agreements reached between the OCRWM and NNPP. NNPP stated that its objectives for this meeting were to identify any issues with the NNPP QA Program that are pertinent to the licensing of the geologic repository and to obtain NRC agreement with the approach OCRWM and NNPP have agreed upon for QA of NNPP work.

During this meeting, the NRC agreed to take back the information discussed, including a draft revision to the OCRWM Quality Assurance Requirement Document (QARD) that describes the OCRWM's acceptance of the NNPP QA Program, and review the material. The NRC also agreed to evaluate how to document potential agreement with the approach to QA of NNPP work, whether as an Appendix to the QARD or in another form. The following paragraphs provide the results of the NRC's reviews of the discussions and documents presented by NNPP and OCRWM during the July 29, 1999, meeting.

I. Comments on the Acceptance of the NNPP QA Program by OCRWM

The methodology discussed during the July 29, 1999, meeting and used by the OCRWM to confirm that the NNPP QA Program: (1) adequately described how the applicable requirements of Appendix B to 10 CFR Part 50 would be satisfied; and (2) was being effectively implemented, appears to be satisfactory. This methodology is documented in a DOE Letter to J. T. Greeves (NRC), "OCRWM Review and Acceptance of the NNPP QA Program," from Dwight E. Shelor (DOE), dated March 8, 1999. Additionally, as described in the NRC Memorandum from Ted Carter (NRC), "Meeting with Representatives of the Naval Nuclear Propulsion Program," to C. William Reamer (NRC), dated August 3, 1999, OCRWM stated that it plans to verify the effective implementation of the NNPP QA Program by continuing to observe NNPP audits and inspections and reviewing NNPP audit and inspection reports. Further, in the July 29,

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1999, meeting, NR stated that communication will occur consistent with the Memorandum of Agreement between NNPP and OCRWM (at least annually) regarding any changes made to the NNPP QA implementing documents.

The initial OCRWM acceptance of the NNPP QA Program appears to be consistent with the NRC's positions on qualifying suppliers and confirming that the supplier's QA Program is being effectively implemented as discussed in Regulatory Position C 3.2 of NRC Regulatory Guide (RG) 1.28, "Quality Assurance Program Requirements (Design and Construction)," Revision 3. It is noted that RG 1.28 is one method acceptable to the NRC for describing how the requirements of Appendix B to Title 10 of the Code of Federal Regulations (10 CFR) Part 50 will be satisfied. Section III of this letter provides additional discussion on the requirements of Appendix B to 10 CFR Part 50.

OCRWM has indicated that it will interface with NNPP annually and will continue to verify that the NNPP QA Program is being effectively implemented by observing NNPP audits and inspections, and by reviewing NNPP audit and inspection reports. Collectively, these OCRWM observations and reviews should be sufficient to assess the effectiveness of the implementation of the applicable elements of the NNPP QA Program, at a frequency required by the OCRWM QARD, and the annual NNPP/OCRWM interface meeting should serve an opportunity for OCRWM to annually evaluate the performance of NNPP and any changes to the NNPP QA Program and its implementing procedures.

The licensee for the high-level waste repository at Yucca Mountain has certain responsibilities that include assuring that the NNPP QA Program controls for activities that are important to safety and important to waste isolation are being effectively implemented. Therefore, for the NRC to find the NNPP agreement with OCRWM acceptable, it must contain the following provisions:

- The provisions discussed in the above paragraphs, and
- When deemed necessary by OCRWM, the effectiveness of the control of quality by NNPP shall be independently assessed by OCRWM. During this assessment, OCRWM shall assess the effectiveness of the control of quality focusing on any area of concern. This assessment may be similar to the review performed by OCRWM to initially accept the program or may be more extensive as determined by OCRWM.

II. Documentation of the Acceptance of NNPP QA Program

The NRC does not consider the QARD to be the appropriate place to document the OCRWM acceptance of the NNPP QA Program controlling the qualification of data provided with the NNPP SNF. The auditing and qualifying of a supplier is addressed in Section 18.2.2, "Scheduling of External Audits," and in Section 7, "Control of Purchased Items and Services," of the QARD. The implementing procedures for the QARD provide methods for documenting that a QA Program is acceptable and for performing evaluations and assessments to confirm that the QA program is being effectively implemented. It is recommended that the methods provided for in the QARD and its implementing procedures be used to document how OCRWM has accepted the NNPP QA Program. This is generally accomplished through the OCRWM external audit

process and its control of an approved supplier list. Another option would be for OCRWM to prepare a new procedure that specifically addresses agreements for the acceptance of the NNPP QA Program (such a procedure would need to: (1) meet the applicable requirements of the QARD, including Section 5.0, "Implementing Documents"; (2) address the items discussed in this letter; and (3) address the discussions related to acceptance of the NNPP QA Program that are documented in the August 3, 1999, NRC memorandum from Ted Carter to C. William Reamer).

III. Additional Comments on the Requirements of Appendix B to 10 CFR Part 50

In the "Introduction" section of Appendix B to 10 CFR Part 50, reference is made to §50.34 as follows: "Every applicant for a construction permit is required by the provisions of Part 50.34 to include in its preliminary safety analysis report a description of the quality assurance program to be applied to the design, fabrication, construction, and testing of systems, structures, and components of the facility. In Part 50 licensing space, 50.34(b)(6)(ii) requires that each application for a license shall include information on the controls to be applied for a nuclear power plant or fuel reprocessing plant including "a discussion of how the applicable requirements of Appendix B to 10 CFR Part 50 will be satisfied." Therefore, in order to meet the requirements of Appendix B to 10 CFR Part 50, the QA program needs not only meet the requirements contained in Appendix B, but also needs to describe how applicable requirements will be satisfied.

During the July 29, 1999, meeting, NNPP stated that its QA program meets the intent of and applicable requirements of Appendix B to 10 CFR Part 50. Further, during this meeting, NNPP indicated that it believed certain NRC positions contained in NRC documents, such as NRC review plans, went beyond these requirements. The NRC representatives discussed the fact that simply restating the requirements of Appendix B in a QA Program did not meet the requirements of the regulation and that the regulation required that the QA program describe how the requirements of Appendix B would be satisfied. It was further discussed that certain NRC documents, such as review plans for QA programs and regulatory guides, contained provisions to ensure that the QA Program not only met the requirements of Appendix B to 10 CFR Part 50, but also described how the requirements of Appendix B would be satisfied. Further, during the July 29, 1999, meeting, the NRC representatives identified that it was ultimately the responsibility of OCRWM to ensure that the NNPP QA Program meets applicable NRC requirements. During the July 29, 1999, meeting, OCRWM indicated that it believed that the NNPP QA Program met applicable NRC regulations.

Letter to Mr. Mowbray from C.W. Reamer dated: December 22, 1999

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G.Mowbray

Should you have any questions concerning this letter or wish to meet with the NRC on the issues discussed herein, please contact King Stablein of my staff at (301) 415-7445.

Sincerely,

Original signed by K. Stablein for:

C. William Reamer, Chief
High-Level Waste and Performance
Assessment Branch
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Office of Nuclear Material Safety
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cc: See List

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