

August 3, 2007

Mr. Dirk S. Leach
Shaw AREVA MOX Services
P.O. Box 7097
Aiken, SC 29804-7097

SUBJECT: APPROVAL OF THE MIXED OXIDE PROJECT QUALITY ASSURANCE PLAN

REFERENCES:

- (1) Letter, Persinko (NRC) to Hastings (DCS), January 10, 2003, Duke Cogema Stone & Webster Quality Assurance Program For Construction of the MOX Fuel Fabrication Facility
- (2) Letter, Hastings (DCS) to Document Control Desk (NRC), November 12, 2003, MOX Project Quality Assurance Plan (MPQAP) Revision 4
- (3) Letter, Hastings (DCS) to Document Control Desk (NRC), March 26, 2002, MOX Project Quality Assurance Plan (MPQAP) Revision 3, Response to NRC Conditional Approval
- (4) Safety Evaluation Report: Quality Assurance Program for Construction of the MOX Fuel Fabrication Facility, Enclosure to Letter, Persinko/NRC to Hastings/DCS October 1, 2001

Dear Mr. Leach:

The U.S. Nuclear Regulatory Commission (NRC) staff completed the technical review of the Shaw AREVA MOX Services (MOX Services) Mixed Oxide (MOX) Project Quality Assurance Plan (MPQAP), Revision 5, submitted by letter dated June 28, 2007, and determined that it provided reasonable assurance of protection against natural phenomena and the consequences of potential accidents during design and construction. MPQAP revision 5, supersedes in its entirety Revisions 3, 4, and Revision 4, Change 1.

The staff evaluated the differences between MPQAP Revision 3, approved in Safety Evaluation Report dated October 1, 2001, and Revision 5. In Revision 5, MOX Services (formerly DCS) provided clarifications and incorporated additional commitments regarding the methods, process and criteria for implementing graded quality assurance controls. Additionally, quality levels for structures, systems and components (SSCs) were defined in response to the staff's request for additional information. Other changes include an update of the policy statement, organization description, and revision of the corporate name change from Duke COGEMA Stone and Webster (LLC) (DCS) to Shaw AREVA MOX Services (LLC). The scope of the MPQAP was also expanded to include startup testing and operation. In addition, quality level (QL) classifications QL-1a and QL-1b assigned to SSCs were consolidated into one quality level classification as well as, the application of augmented quality assurance requirements. The staff finds that the expansion of the scope and application of requirements delineated in MPQAP Revision 5 during startup testing and operation will not reasonably assure the

protection against natural phenomena and consequences of potential accidents pursuant to 10 CFR 70.22(f) and 10 CFR 70.23(b), because of the ongoing review and technical evaluation of the License Application and Integrated Safety Analysis summary.

The staff's technical review was based on guidance provided in NUREG 1718, "Standard Review Plan (SRP) for the Review of an Application for a Mixed Oxide (MOX) Fuel Fabrication Facility" dated August 2000, and consistent with the American Society of Mechanical Engineers (ASME) "Quality Assurance Requirements for Nuclear Facility Applications" ASME NQA-1 - 1994 Edition, as revised by the 1995 Addenda and 10 CFR Part 50, Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants". Based on the staff's review, MOX Services MPQAP, Revision 5 is approved for design, construction and installation activities, including procurement and fabrication. By approving Revision 5 of the MPQAP, the staff is not making any conclusion as to the categorization of items relied on for safety (IROFS) or applicability of augmented quality or graded Quality Assurance (QA) controls referenced in the MPQAP.

The staff therefore finds, pursuant to 10 CFR 70.23(b), that MOX Services has adequately described its QA program, and this program meets the intent of 10 CFR 50 Appendix B, "Quality Assurance Requirements for Nuclear Power Plants and Fuel Reprocessing Plants" when applied to SSCs for the MFFF during design, procurement, fabrication, and construction. The scope of this finding pertains exclusively to the construction of the MFFF's SSCs, and includes all related design, construction, procurement, and fabrication activities, but does not include the approval of the MPQAP pursuant to 10 CFR 70.23(b) for any startup testing or operation of the MFFF. In this regard, it should be noted that MPQAP Section 12, "Test Control" has not been reviewed for acceptability for startup testing and operation. In addition, MPQAP Section 2, "Quality Assurance Program" reference to the application of ASME NQA-1-1994 Part II Subpart's (2.1, 2.2, 2.3, 2.4, 2.5, 2.7, 2.8, 2.15, 2.16, and 2.20) the programmatic use of these subpart's are approved for design and construction only.

The QA programmatic areas that impact licensing, startup testing, and operations will be evaluated at a later date or when more information is available.

Staff has noted the new MOX Services commitment in MPQAP Revision 5, Section 2.2.3 C regarding transmittal of a list of QL-1 IROFS that use augmented QA programs. Staff will review the list of augmented QL-1 IROFS upon transmittal.

D. Leach

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If you have any questions related to this letter or our MPQAP review, please contact me at (301) 492-3218 or Dave Tiktinsky at (301) 492-3229.

Sincerely,

/RA/

Joseph G. Giitter, Deputy Director
Special Projects and Technical Support Directorate
Division of Fuel Cycle Safety
and Safeguards
Office of Nuclear Material Safety
and Safeguards

Docket No.: 70-3098

cc: G. Smith, NNSA
J. Olencz, NNSA
H. Porter, SC Dept. Of HEC
D. Silverman, Esq., MOX Services
D. Gwyn, MOX Services

A.J. Eggenberger, DNFSB
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Joseph G. Giitter, Deputy Director
Special Projects and Technical Support Directorate
Division of Fuel Cycle Safety
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