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U.S. Nuclear Regulatory Commission
Washington, DC 20555

DCS-NRC-000392
11 May 2015


Subject: Docket Number 70-03098
CB&I AREVA MOX Services
Mixed Oxide Fuel Fabrication Facility
Submittal of Amendment Number: MPQAP-2015-0002 of the MOX Project
Quality Assurance Plan

CB&I AREVA MOX Services, LLC (MOX Services) hereby submits to the U.S. Nuclear Regulatory Commission (NRC) Amendment Number: MPQAP-2015-0002 of the MOX Project Quality Assurance Plan (MPQAP) (Enclosure 1) for review and approval. MPQAP-2015-0002 makes minor changes to the supplier submittal requirements for UL or FM QL-1LR items. The revised submittal requirements continue to satisfy the criteria of 10 CFR 50 Appendix B.

NRC review and approval of Amendment Number: MPQAP-2015-0002 is requested by July 30, 2015 as the change impacts ongoing construction activities.

If you have any questions, please feel free to contact me at (803) 442-6485 or Dealis Gwyn, Licensing and Nuclear Safety Manager at (803) 819-2780.

Sincerely,



David Del Vecchio
President and Project Manager

DCS-NRC-000392
11 May 2015
Page 2 of 2

Enclosure:

(1) Amendment Number: MPQAP-2015-0002 of the MOX Project Quality Assurance Plan

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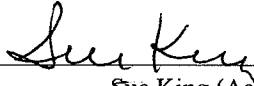
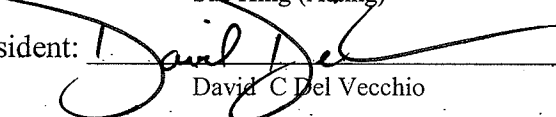
Enclosure (1)

**Amendment Number: MPQAP-2015-0002
of the
MOX Project Quality Assurance Plan**

MOX Project Quality Assurance Plan (MPQAP)

AMENDMENT

Docket No. 070-03098

Amendment No.: MPQAP-2015-0002	NRC Approval Required
Approvals	
VP Project Assurance: <u></u> Sue King (Acting)	Date: <u>6 May 2015</u>
MOX Services President: <u></u> David C Del Vecchio	Date: <u>07 MAY 15</u>

Current Wording: Attachment B, Section 4.1, 1 st Paragraph	Revised Wording: Attachment B, Section 4.1, 1 st Paragraph
<p>4.1 Procurement Document Control/Control of Purchased Items and Services</p> <p>IROFS may be procured directly from suppliers based on nationally/internationally recognized independent accreditation from Underwriters Laboratory or Factory Mutual subject to the following. MOX Services will perform a surveillance of UL or FM prior to using UL or FM as the basis for supplier selection. This surveillance is a onetime requirement.</p> <ul style="list-style-type: none">• The supplier shall submit the UL or FM qualification report for the item to be procured, the UL or FM process evaluations report for the supplier, the supplier's quality assurance manual and the supplier's UL or FM accreditation certificate.• For UL or FM items the supplier will be required to submit a Certificate of Conformance confirming that the work has been performed in accordance with the technical and quality requirements of the purchase order and the Supplier's QA	<p>4.1 Procurement Document Control/Control of Purchased Items and Services</p> <p>IROFS may be procured directly from suppliers based on nationally/internationally recognized independent accreditation from Underwriters Laboratory or Factory Mutual subject to the following. MOX Services will perform a surveillance of UL or FM prior to using UL or FM as the basis for supplier selection. This surveillance is a onetime requirement.</p> <ul style="list-style-type: none">• The supplier shall submit the UL or FM qualification report for the item to be procured and the supplier's UL or FM accreditation certificate.• For UL or FM items the supplier will be required to submit a Certificate of Conformance confirming that the work has been performed in accordance with the technical and quality requirements of the purchase order and the Supplier's QA Program as evaluated by UL or FM.• The accreditation organizations qualification report for the item to be procured in conjunction with normal

MOX Project Quality Assurance Plan (MPQAP)

AMENDMENT

Docket No. 070-03098

Program as evaluated by UL or FM.

- The accreditation organizations test/qualification report for the item to be procured in conjunction with normal construction/preoperational/start-up testing is reviewed by MOX Services and has been determined to be sufficient to demonstrate that the item will perform its safety function.
- The accreditation organizations evaluation of the technical and quality capability of the suppliers' process controls is reviewed by MOX Services and has been determined to be sufficient to provide reasonable assurance that the manufactured items are representative of the item tested.
- If either of the conditions above cannot be met, MOX Services shall identify supplemental controls that are required to be established, consistent with section 7 of the MPQAP and documented in the purchase order per section 4 of the MPQAP. The supplemental requirements will be implemented by MOX Services or a MOX Services approved NQA-1 supplier.
- The supplier provides to MOX Services a current certificate of accreditation, or equivalent, from the accreditation organization. This will be identified during MOX Services receipt inspection as part of item acceptance.
- For the items procured the supplier shall provide a certificate of conformance. MOX Services quality control shall perform a receipt inspection and, where appropriate, MOX Services shall perform functional testing during start-up as a

construction/preoperational/start-up testing is reviewed by MOX Services and has been determined to be sufficient to demonstrate that the item will perform its safety function.

NOTE: If UL or FM approves an item to a standard and engineering determines that meeting that standard meets the needed safety requirements, then the UL or FM report is no longer required.

- If either of the conditions above cannot be met, MOX Services shall identify supplemental controls that are required to be established, consistent with section 7 of the MPQAP and documented in the purchase order per section 4 of the MPQAP. The supplemental requirements will be implemented by MOX Services or a MOX Services approved NQA-1 supplier.
- The supplier provides to MOX Services a current certificate of accreditation, or equivalent, from the accreditation organization. This will be identified during MOX Services receipt inspection as part of item acceptance.
- For the items procured the supplier shall provide a certificate of conformance. MOX Services quality control shall perform a receipt inspection and, where appropriate, MOX Services shall perform functional testing during start-up as a minimum.
- The items will be designated as basic components upon acceptance. This will normally occur at QC receipt inspection.

MOX Project Quality Assurance Plan (MPQAP)

AMENDMENT

Docket No. 070-03098

minimum.

- The items will be designated as basic components upon acceptance. This will normally occur at QC receipt inspection.

Factory Mutual and Underwriters Laboratories recalls will be reviewed as a part of the MOX Services Lessons Learned process. The recall list will be reviewed quarterly as a minimum.

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Justification:

The MOX Services implementation of the changes above does not decrease the commitment for compliance to ASME NQA-1. The UL/FM qualification report and the suppliers FM/UL accreditation certification provide sufficient assurance on the quality of the item.

1) At the time MOX Services made the commitments for the ILR program, surveillances at Underwriters Laboratory and Factory Mutual had not been performed to understand their certification or approval process. Since that time, MOX services has performed an evaluation of UL and FM as committed to during their submittal of revision 11, change 3 of the Project Quality Assurance Manual. Audit reports and auditor qualifications/training were reviewed as part of the MOX surveillance and no significant issues were identified (Reference MOX Surveillance Report UWL-13-VS-189 and FMA-13-VS-180). The commercial supplier is required to provide certification that he made the items requested in accordance with the QA program/processes as evaluated by UL or FM. MOX Services has determined that the process evaluation controls of UL/FM are satisfactory.

2) Both UL and FM perform follow-up surveillance audits after the initial certification or approval process, depending on the agency, is completed. These follow-up surveillance requirements are performed where the product is manufactured. If the manufacturer allows manufacturing to be performed at another location, either completely manufactured or critical portions of the manufacturing which includes testing of the item, then UL or FM then evaluates the alternate facility.

3) EPRI NP-5652, Method 2, Commercial Grade Survey, outlines the requirements for performing reviews of commercial suppliers documented programs and procedures in order to credit those programs as part of critical characteristic acceptance. MOX verified UL and FM's auditing processes and auditor qualifications as previously discussed. Although UL and FM are not the manufacturers of the components being supplied, they are auditing the manufacturer's processes and procedures for controlling critical attributes for material which is being "certified" or "approved" thru their agencies (Certified for UL and Approved for FM). MOX found this area to be satisfactory during its surveillance.

MOX Project Quality Assurance Plan (MPQAP)

AMENDMENT

Docket No. 070-03098

4) Electric Power Research Institute document NP-5652 (as conditionally endorsed by NRC Generic Letter 89-02) discusses four methods of acceptance for the verification of critical characteristics. One of those methods, Method 4- Acceptable Supplier/Item Performance, discusses allowing the purchaser to accept commercial grade items based on confidence in the supplied item through proven performance of the item. MOX services committed to monitor both UL and FM on a quarterly basis and review recalls from both of these organizations in order to continuously monitor products for quality issues. This requirement is listed in Attachment B, Augmented QA Program for IROFS (Low Importance to Safety), to the MPQAP as well as Project Procedure, PP1-7, MOX Fuel Fabrication Lessons Learned Program.

MOX has issued 14 Lessons Learned Identification and Screening documents as a result of UL or FM recalls since June 2013, when the QL-1LR program was approved by the NRC in Revision 11 of the MOX MPQAP. For the recalls issued, 12 of 14 of these recalls dealt with fraudulent parts found in the marketplace that had UL or FM symbols on them. One issue was due to the supplier marking and shipping butterfly valves which showed "FM Approval-Pending" and one item dealt with the distance between panels when installed. None of these items have been sent to MOX.

Although UL or FM are not the manufacturer, monitoring of the recalls which they issue does provide oversight of the products which they are certifying.

5) As previously committed, MOX Services will continue to request UL or FM Qualification Report and the supplier's UL or FM accreditation certificate and perform a technical review of these documents prior to accepting QL-1LR items for use at MOX.