

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

Subject: Docket No. 70-3098
Construction Authorization No. CAMOX-001
Reply to a Notice of Violation

Reference 1 Letter from Deborah A. Seymour to David Stinson dated
July 29, 2008 entitled "MIXED OXIDE FUEL FABRICATION
FACILITY- NRC INSPECTION REPORT 70-3098/2008-002
AND NOTICE OF VIOLATION"

Shaw AREVA MOX Services is submitting its response to the Notice of Violation issued in the subject inspection report (Reference 1). Please note that MOX Services believes that NRC's issuance of the NOV represents a misapplication of the NRC Enforcement Policy and may result in misapplication of NRC and licensee resources and significant confusion to the public. For the reasons discussed in Attachment 1 to this letter, MOX Services believes that application of NRC's Enforcement Policy to the examples cited in the NOV should more appropriately have resulted in a Minor Violation (MV) or Non-Cited Violation (NCV). Nonetheless, in accordance with 10 CFR 2.201, Shaw AREVA MOX Services' response to the NOV is contained in Attachment 2.

If you have any questions, please contact Dealis Gwyn, Licensing and Regulatory Compliance Manger, at (803) 819-2780.

Sincerely,



David Stinson
President and COO

DCS-NRC-000226
28 August 2008

Attachments

cc:

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(NRC)\DCS-NRC-000226

Attachment 1
Page 1 of 3

APPLICATION OF THE NRC ENFORCEMENT POLICY

MOX Services does not dispute that the four examples cited in the NOV describe deficiencies, rather MOX Services believes that citing the examples as a Severity Level IV violation represents a departure from the NRC Enforcement Policy and that the basis for that departure was not described in the NOV. Additionally, MOX Services does offer clarification of the identified deficiency in Example 3.

MOX Services believes that straight forward application of the NRC Enforcement Policy for these non-safety significant non conformances should have been documented in the inspection report as either Minor Violations (MVs) or Non-Cited Violations (NCVs). Nonetheless, because the Violation already has been cited, MOX Services provides, in Attachment 2 its Reply to a Notice of Violation, including providing for each of the example:

- (1) the reason for the non-conformance;
- (2) the corrective steps that have been taken and the results achieved;
- (3) the corrective steps that will be taken to avoid further non-conformances; and
- (4) the date when full compliance was or will be achieved.

The NRC Enforcement Policy does not contain a Supplement specific to assessment of severity levels of violations during construction of fuel fabrication facilities authorized to possess quantities of special nuclear Material. MOX Services is mindful that NRC considers this type of facility to be an important regulatory priority and identified them separately in Table 1A – Base Civil Penalties, with a base penalty set at half of that applicable for a Part 50 reactor facility.

The Supplement that literally applies to MOX Services is Supplement VI – Fuel Cycle and Materials Operations. Under that Supplement, none of the examples would appear to reach the safety or environmental significance of the examples in Subsection D. Severity Level (SL) IV.

The NOV indicates, without explanation, that NRC elected to apply Supplement II “Part 50 Facility Construction” to assess the Severity Level of the Violation.

Attachment 1
Page 2 of 3

MOX Services recognizes that this supplement is better suited to consideration of issues that may arise in the construction environment. However, it is also true that this Supplement was crafted and focused on facilities of even higher safety and regulatory significance than a fuel fabrication facility. Accordingly, its application to MOX Services should not be mechanistic.

Even under Supplement II, MOX Services does not believe that any of the examples noted should have resulted in a SL IV violation. Subsection D. Severity Level IV of Supplement II notes that SL IV is reserved for "violations that have more than minor safety or environmental significance." None of the examples described in the NOV meets that description.

The Enforcement Policy describes the circumstances under which a Non-Cited Violation should be identified in the inspection report, but no NOV issued. Section VI. Disposition of Violations notes that "minor violations are not the subject of enforcement action. While licensees must correct these violations, they don't normally warrant documentation in inspection reports or inspection records." Subsection A. Non-Cited Violation (NCV) describes the circumstances when a non-compliance will be noted in an inspection report, but not cited in a NOV. Even for Part 50 Power reactors, NRC's policy notes that even violations that rise to the level of SL IV, i.e., very low safety significance will be dispositioned as NCVs absent one of the following circumstances:

- a. failure to restore compliance within a reasonable time following discovery;
- b. failure to enter the issue into the corrective action program;
- c. repetitive violation resulting from inadequate corrective action; or
- d. willfulness.

None of those exceptions applies to any of the examples cited in the NOV.

Subsection VI.A.8 addresses NCVs for "All Other Licensees." MOX Services believes that just Supplement VI is not well suited to a fuel fabrication facility under construction, this subsection does not fit. VI.A.8 applies a different standard than VI.A.1, discussed above. Specifically, VI.A.8 would result in citing a SL IV violation if the licensee failed to identify the violation. Applying the Part 50 Construction Supplement for assessing severity level, but then applying the "all other licensees" criteria for NCVs distorts the Enforcement Policy and would result in nearly every NRC inspection finding being cited as a SL IV violation. This result would distort the application of NRC and licensee resources to items of very low safety significance and risks confusing the public. It logically follows that if NRC elects to apply Supplement II – Part 50 Construction to assessment

Attachment 1
Page 3 of 3

of severity levels of violations at the MFFF, it must also apply the corresponding NCV criteria.

In addition, Inspection Manual Chapter 0612, Appendix E offers examples of minor issues in ROP. While it supports the significance determination process for operating reactors, the logic and threshold for classifying issues as minor violations is similar to identifying issues as NCV. One of the touchstones in IMC 0612 Appendix E is whether there were any actual consequences or safety impact of the violation. Applying the examples related to records keeping, procedural errors, and work in progress to the examples in the NOV, none of them would result in a cited violation because none resulted in an adverse consequence or safety impact.

Based on the above discussions, MOX Services believe the issues identified in the Notice of Violation should have been more appropriately classified as NCVs or MVs.

Attachment 2
Page 1 of 9

Reply to a Notice of Violation

Language of the Violation

Condition 3.A of NRC Construction Authorization No. CAMOX-001 (Revision 2, dated June 12, 2008) authorizes, in part, the applicant to construct a plutonium processing and mixed oxide fuel fabrication plant, known as the Mixed Oxide Fuel Fabrication Facility (MFFF) located at the Department of Energy's Savannah River Site, in accordance with the statements, representations, and conditions of the MOX Project Quality Assurance Plan (MPQAP) dated March 26, 2002 and supplements thereto.

Contrary to the above, on and before June 19, 2008, the applicant failed to implement certain MPQAP and requirements, as enumerated in the following examples:

1. MPQAP, Revision 5, Section 5.1, requires quality-affecting activities to be prescribed by and performed in accordance with documented, approved QA procedures and other approved implementing documents (drawings, specifications, etc.) appropriate to the MOX project work scope. Requirement 5.2.2 under this section requires implementing documents to provide a sequential description of work to be performed, and quantitative or qualitative acceptance criteria sufficient for determining activities were satisfactorily accomplished.

The applicant failed to provide an approved QA procedure or other approved implementing document which prescribed a sequential description of work to be performed, and quantitative or qualitative acceptance criteria for determining activities were satisfactorily accomplished during the installation and inspection of exothermic weld splices of ground cables.

2. MPQAP, Revision 5, Section 2.2.6, requires indoctrination, training, and qualification of personnel performing activities affecting quality. Requirement H. 2 requires training procedures to identify technical objectives and requirements of the applicable codes and standards.

MOX Services Project Procedure PP3-27, "Quality Control Personnel Certification," Section 3.2.4, states inspection personnel shall perform inspection activities only in their areas of certification. Sections 3.4 and 3.6 state areas of certification, including certification for special applications,

Attachment 2
Page 2 of 9

will be documented on the qualification summary form, or Certificate of Qualification. Appendix D designates "Cadwelding" as a certification area for Special Processes. SECTION 3.1 defines Inspector Training Records as documents containing training objectives, course outlines, reading assignments, tests, and examinations and/or capability demonstrations.

The applicant failed to document evaluations of inspector training for "Cadweld" ground cable splices on the respective Certificates of Qualification, and did not provide a written inspector training record that identified the technical objectives, course outline, or requirements of the applicable codes and standards.

3. MPQAP, Revision 5, Section 17.2.4.C, Record Repositories, requires in part that records shall be stored in either temporary or permanent containers or facilities. According to the MPQAP, temporary storage is defined as a facility or container with a fire rating of at least one (1) hour. The temporary storage container or facility shall bear an underwriters' laboratories label (UL) or equivalent, certifying one (1) hour fire protection, or be certified by a person competent in the technical field of fire protection.

The applicant failed to store QA records in temporary storage container of facility bearing an underwriters' laboratories label (UL) or equivalent, certifying (1) hour fire protection, or be certified by a person competent in the technical field of fire protection in the Management Administrative Complex, Construction Administrative Complex and Equipment Engineering Complex Buildings. Specifically, QA records, including receipt inspection reports, surveillances of Quality Level -1 items relied on for safety (IROFS), and design drawings, were not stored in fire rated containers prior to transmittal to the permanent record repository.

4. MPQAP, Revision 5, Section 16, Corrective action, requires in part, that conditions adverse to quality be promptly identified.
 - a. On June 3, 2008, the applicant failed to identify a condition adverse to quality in that during the BMP-F111 basemat concrete placement, the previously placed concrete had lost its plasticity prior to making the next concrete placement, thus creating a cold joint.
 - b. On June 19, 2008, the applicant failed to identify during BMP-F112 basemat construction joint inspection activities that foreign material had been left in the construction joint and that there was voiding behind the stay forms.

Attachment 2
Page 3 of 9

A. Response to Notice of Violation (Example 1)

(1) Reason for the violation:

The specific condition occurred because of an administrative error in the development of specification DCS01-EEJ-DS-E-25210-2. The specification specified that submittals of manufacturer's instructions were "for information only" when it should have required them for "approval." The misclassification of the submittal in the specification failed to have the instruction entered into Documentum as an approved instruction.

(2) Corrective action taken and results:

Condition Report CR 200800236 has been initiated, the specification has been corrected and the specific manufacturer's instruction, "Installers and Inspectors Guide for CadWeld Electrical Connections," has been incorporated into an approved instruction. It was also verified that the manufacturer's instruction had been reviewed by field engineering, the installing contractor and Quality Control prior to use

3) Steps to avoid recurrence:

The corrective actions identified in section (2) above are sufficient to prevent recurrence.

(4) Date when full compliance will be achieved:

Full compliance has been achieved.

B. Response to Notice of Violation (Example 2)

(1) Reason for the violation:

Project Procedure PP3-27, Rev. 2, Section 2.0 states in part, "...completion of the requirements specified herein shall provide evidence of competence and qualification of QC Inspectors to perform in the category for which they are endorsed."

Attachment 2
Page 4 of 9

Contrary to this requirement, the certifications issued for Electrical QC Inspectors do not expressly identify "Grounding and Bonding" as being addressed under the issued certifications.

This was recognized initially by the QC department as being an area that would benefit from additional clarification. The QC department prepared Inspector Training Module # 204 to address Grounding and Bonding as a separate certification area, but it had not been implemented when the NRC identified it during their inspection of the week of 09 June 2008.

(2) Corrective action taken and the results:

A QC Group representative participated in numerous discussions with Construction and Design Engineering as well as the representative from the supplier (Erico). Using these discussions, the applicable specifications, and the vendor's supplied instructions an Inspection Plan was prepared in collaboration with Engineering. This plan identified the critical inspection attributes. These attributes were then used as a tool to aid to identify the training needs to assure that our inspectors were equipped with the requisite skills and knowledge to meet our inspection requirements.

A training presentation was developed which was structured to assure that the QC inspectors were well versed in the key attributes associated with this inspection task. A standard bank of examination questions was developed to measure the degree of comprehension of the individual inspectors once the training had been administered. This entire development process was carefully structured to assure conformance to the requirements of Project Procedure (PP) 3-27, Quality Control Personnel Certification.

Based on the result of the above analysis a training approach was designed that could be implemented to satisfy the requisite learning objectives. It should be noted that this was not a complicated process since the design of this training process was based on the format and content used for other, more established certification processes.

Training was administered to the individual inspectors who have the requisite experience to satisfy the certification experience requirements of NQA-1 and PP 3-27. At the conclusion of the training each Inspector was subjected to a closed-book examination to affirm their knowledge and understanding of this task In addition. Copies of their test results have been included under this certification file in the Project Records Center. While it is true that the "Certificate of Qualification" does not specifically mention this task, this does not mean that they

Attachment 2
Page 5 of 9

were not certified in this area. They were appropriately certified through study and testing and inclusion of the training/testing records as a part of the certification file which meets the intent of NQA-1 and PP3-27. In addition, during the conduct of the NRC Inspection, Inspector Training Module #204 was implemented, as originally planned, to address "Grounding and Bonding" on a more global basis.

Condition Report CR 200800233 was initiated to document the corrective action.

(3) Steps to avoid recurrence:

The corrective actions identified in section (2) above are sufficient to prevent recurrence.

(4) Date when full compliance will be achieved:

Full compliance has been achieved.

C. Response to Notice of Violation (Example 3)

(1) Reason for the violation:

The violation states that QA records, including receipt inspection reports, surveillances of Quality Level -1 items relied on for safety (IROFS), and design drawings were not stored in fire rated containers prior to transmittal to the permanent record repository. Consistent with the approved MPQAP and project procedure requirements the receipt inspection reports are the only items that are required to be stored in fire rated containers prior to transmittal to the permanent records repository. Additional discussion on the other items is presented in section 2 below.

The QA Administrative Assistant placed the receipt inspection reports in a locked drawer waiting weekly processing to the Project Records Center (PRC). The drawer did not have a one (1) hour fire rating required by MPQAP Rev. 6 Section 17.2.4.C.

(2) Corrective action taken and results:

This condition was corrected immediately by obtaining a one hour fire rated container, placing the receipt inspection reports into the container and coaching the administrative assistant on the expectations for records processing.

Attachment 2
Page 6 of 9

Of the documents listed in the violation example, only the completed receiving inspection reports should have been treated as active records. The remaining documents, surveillance reports and design drawings, were not active or in use records. The receiving inspection reports should have been in temporary storage. The condition was limited to receiving inspection report records processed by an administrative assistant who thought it was acceptable to maintain receiving inspection reports locked in a desk until the weekly transmittal to PRC (Project Records Center). As discussed above, this condition was corrected immediately.

The remaining records were being maintained consistent with MPQAP and project procedure requirements. The basis for this conclusion is that

- (1) NQA-1 Basic Requirement 17 states that requirements and responsibilities for transmittal of records shall be established and documented. Supplement 17S-1 states that completed records are to be submitted without unnecessary delay. This statement recognizes that a delay in submitting records is acceptable.
- (2) MPQAP Rev. 6 Section 17.2.3.A states the process shall identify the permissible time, after authentication of records, for submission of records. Additionally, MPQAP Rev. 6 Section 17.2.4.C stated that records to be stored in temporary storage while active and required for use. With the exception of the receiving inspection reports, the remaining documents were not active and required for use. During the inspection, it was noted the requirement for "active" records and its requirement for a one (1) hour fire cabinet was quoted without noting the active or required statement.
- (3) PP3-4 Rev. 5 Section 3.1 states that records should be submitted to PRC within thirty (30) days. The records are submitted to PRC once every week well within our requirement of thirty (30) days. Records that are approved but are not submitted to the PRC are not active and required for use. Based on the fact that these records could easily be reconstructed within the 30 day time frame should they be lost or destroyed and the fact that they can not be used by others (they can only be used after they been submitted to the PRC), 30 days is considered to meet the requirement for unnecessary delay. Any impact of lost or destroyed records would be financial or schedule, but not quality.

Condition Report CR No. 20080234 was initiated to document the deficiency example and the corrective action that was implemented.

Attachment 2
Page 7 of 9

(3) Steps to avoid recurrence:

The corrective actions identified in section (2) above are sufficient to prevent recurrence.

(4) Date when full compliance will be achieved:

Full compliance has been achieved.

D. Response to Notice of Violation (Example 4a)

(1) Reason for the violation:

During the concrete placement on BMP-F111 basement pour, a horizontal cold joint was observed in the 18' x 7'-0" at Elevation 1'-7" area. A MOX Services review was conducted that included the work groups involved in concrete placement and contributing factors were identified. These include 1) the need to closely monitor weather and have provisions available for ice and/or chilled water, 2) insure someone is available to monitor concrete conditions during placements and 3) and the use of admixtures versus water to achieve proper slump.

(2) Corrective action taken and results:

A Nonconformance Report (CE-08-0322) was initiated on June 3, 2008 (the day of the pour) to document the condition and determine if the standees and egress wall dowels will provide enough shear capacity at the cold joint so that the slab will behave and perform as a monolithic slab structure. The result of the calculation was that standees and wall dowels that cross the cold joint will provide more than enough horizontal shear capacity to cause the slab to behave as a monolithic slab structure.

Weather conditions are closely monitored and the timing of pour is assessed based on weather conditions. Also, ice and chilled water is used as appropriate to control concrete temperature.

A person is assigned to each pour whose duty is to check for concrete workability.

Attachment 2
Page 8 of 9

The amount of admixtures has been reduced and the amount of water increased in order to achieve required slumps. This increases the amount of time availability for workability.

(3) Steps to avoid recurrence:

The corrective actions identified in section (2) above are sufficient to prevent recurrence.

(4) Date when full compliance will be achieved:

Full compliance has been achieved.

E. Response to Notice of Violation (Example 4b)

(1) Reason for the violation

Design Engineering was asked to determine if the concrete surfaces at construction joints have adequate roughness for bonding to a subsequent pour.

In support of pour BMP-F112, a walkthrough by Design Engineering and Construction Engineering was conducted and two areas were identified verbally. These areas were (1) A void behind the Stay Form; and (2) a piece of a 2x4 board. The Design Engineering representative signed off on the "Request for Final Pre-Placement Inspection" without annotating the areas to be corrected.

(2) Corrective action taken and results:

The void was repaired and the 2x4 board was removed prior to concrete placement. A Construction Joint Inspection Sheet was developed and added to concrete pour work packages to document the inspection of the construction joints and identify any items needing to be addressed prior to subsequent pours. This issue was discussed with civil engineers and other personnel who may perform inspections of construction joints.

Attachment 2
Page 9 of 9

(3) Steps to avoid recurrence:

The corrective actions identified in section (2) above are sufficient to prevent recurrence.

(4) Date when full compliance will be achieved:

Full compliance has been achieved.