



Savannah River Site Watch

**Savanna River Site Watch
For Immediate Release
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**NRC Affirms Two Welding Related Violations at MOX Plant, Waives \$35,000 “Civil Penalty;”
NRC Requires Contractor to Physically Inspect All Welded Equipment Installed in the MOX Plant**

Given the Current Violations and Persistent Rumors of Welding and Construction Problems, Will the NRC Demonstrate the Seriousness of its Inspection Program and Inspect All Welds in the MOX Plant?

Columbia, SC – The U.S. Nuclear Regulatory Commission has determined that two violations holding potentially significant consequences have occurred during construction of the plutonium fuel (MOX) plant at the U.S. Department of Energy’s Savannah River Site.

The violations were found to have occurred after an inspection report of July 25 found that “apparent violations” had occurred. The first violation concerns the purchase of faulty “welded ledger assemblies,” used to support floor panels in the part of the MOX facility that would be used to purify plutonium. The faulty components were purchased from Specialty Maintenance and Construction, Inc. (SMCI) and MOX Services was cited in a second violation for failure to conduct proper quality control audits of SMCI.

In a September 28 letter and “Notice of Violation” to the MOX design and construction contractor, CB&I AREA MOX Services, the NRC issued the violations and determined that there had been a “breakdown” in the Quality Assurance (QA) program of the contractor. To address the violations and associated problems, MOX Services took various “corrective actions” that were accepted by the NRC as adequate to address the identified violations.

“While it is encouraging that the NRC found the violations, which could have had significant safety problems in the construction or operation of the MOX plant if not discovered, it is of concern that other significant problems may lurk undetected,” said Tom Clements, director of Savannah River Site Watch. SRS Watch continues to receive reports of construction problems and about components incorrectly installed that have to be removed and reinstalled.

The NRC determined that the two violations were interrelated and that “Under different circumstances, a QA program breakdown could have resulted in substantially more significant consequences, during subsequent construction or once the facility becomes operational.”

In addition to requiring a company-proposed inspection and repair of all SMCI welds and an update of the Quality Inspection Plan, the NRC is requiring MOX Services to conduct “a physical inspection of all welded equipment installed in the MFFF.”

“The NRC must now review all the welds in the MOX plant along with documentation associated with them and not accept self-inspection by MOX Services as we have seen that approach has failed,” said Tom Clements, of SRS Watch. “Given the critical safety aspects of welds, the NRC must demonstrate that it has a comprehensive inspection program in place and inspect all welds and not just a small sample of them.”

In an August 17 letter to the NRC, MOX Services did not dispute the “apparent violations” cited in July 25 NRC report and affirmed that the company had failed to properly inspect the SMCI welds. In the August 17 letter, MOX also affirmed that SMCI was not properly audited for its ability to provide nuclear-quality materials. MOX Services claims it will comply with the NRC’s required corrective actions by March 31, 2017.

The violations, as stated in the September 28, 2016 NRC letter to CB&I MOX Services are:

1. “The first violation involves CB&I AREVA MOX Services (MOX Services) failure to adequately perform measures to verify the validity of certificates of conformance (CoC) for Quality Level-1 (safety-related) welded ledger assemblies purchased from Specialty Maintenance and Construction, Inc. (SMCI) between November 2008 and June 2010.”

2. “The second violation involves MOX Services failure to conduct adequate audits of SMCI. Specifically, the audit reports for the ledger assembly supplier (SMCI) did not document objective evidence of inspections or surveillances related to manual welding during their audits.”

The NRC stated in the September 28 Notice of Violation that a “base civil penalty” of \$35,000 was warranted for the severity of the violations but that the fine would not be levied on MOX Services in order “to encourage prompt and comprehensive correction” of future violations.” Assessment of monetary fines for violations of NRC regulations is unusual and the NRC affirmed that “significant violations in the future could result in a civil penalty.”

Given the situation with the mismanaged MOX project and the growing likelihood that it will be terminated, NRC inspection may be moot. But as the facility could possibly be used for other purposes involving nuclear materials, the quality of construction could impact such future use and inspections must continue until an orderly shutdown of the construction takes place.

As comprehensive investigations into waste, fraud, abuse and mismanagement are now needed concerning the roles of DOE, Shaw (former contractor), CB&I AREVA MOX Services and such contractors as Superior Air Handling, the role of the NRC and the quality of its MOX plant construction inspection program must also be reviewed in such investigations.

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Notes:

NRC letter and Notice of Violation, September 28, 2016: "MIXED OXIDE FUEL FABRICATION FACILITY- NRC INSPECTION REPORT NUMBER 70-3098/2016-006 AND NOTICE OF VIOLATION":

<https://adamswebsearch2.nrc.gov/webSearch2/main.jsp?AccessionNumber=ML16272A444>

CB&I AREVA MOX Services, response to NRC violations, "Letter from William B. Jones to David Del Vecchio dated July 25, 2016 entitled "Mixed Oxide Fuel Fabrication Facility - NRC Inspection Report 70- 3098/2016-005 and Apparent Violations," August 17, 2016:

http://www.srswatch.org/uploads/2/7/5/8/27584045/areva_response_to_nrc_mox_violations_august_17_2016.pdf

SRS Watch news release, July 29, 2016: CB&I AREVA MOX Services Issued Two Violations by U.S. Nuclear Regulatory Commission for Improper Documentation for Safety-Related Components to Support Floor Panels in MOX Plant:

http://www.srswatch.org/uploads/2/7/5/8/27584045/srs_watch_news_on_nrc_welding_violations_july_29_2016.pdf

"MIXED OXIDE FUEL FABRICATION FACILITY- NRC INSPECTION REPORT NUMBER 70-3098/2016-005 AND APPARENT VIOLATIONS" – from NRC, July 25, 2016:

<https://adamswebsearch2.nrc.gov/webSearch2/main.jsp?AccessionNumber=ML16207A604>

NRC report, July 25, 2016 – "CB&I AREVA MOX SERVICES: OFFICE OF INVESTIGATIONS REPORT NO. 2-2015-036":

<https://adamswebsearch2.nrc.gov/webSearch2/main.jsp?AccessionNumber=ML16209A058>

"MIXED OXIDE FUEL FABRICATION FACILITY- NRC INSPECTION REPORT NUMBER 70-3098/2015-002,"

July 23, 2015 – discusses NRC inspection, including this on "ledger assemblies": The inspectors observed completed welding and installation of supporting structures in the Aqueous Polishing Building (BAP). Observations included the completed welding and installation of ledger assemblies that support pre-cast floor panels in the BAP. An unresolved item (URI) associated with potentially inadequate welds on the pre-cast floor panel ledgers in the BAP was identified (Section 3.a)."

<http://www.nrc.gov/docs/ML1520/ML15204A252.pdf>

Augusta Chronicle article, July 27, 2016, "Nuclear agency reports 'apparent' violations at MOX plant":

<http://chronicle.augusta.com/news/government/2016-07-29/nuclear-agency-reports-apparent-violations-mox-plant#>

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