

April 10, 2008

MEMORANDUM TO: Margie Kotzalas, Chief  
MOX Branch  
Division of Fuel Cycle Safety  
and Safeguards  
Office of Nuclear Material Safety  
and Safeguards

FROM: David Tiktinsky, Senior Project Manager */RA/*  
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Office of Nuclear Material Safety  
and Safeguards

SUBJECT: IN-OFFICE REVIEW SUMMARY: MIXED OXIDE FUEL FABRICATION  
FACILITY ELECTRICAL AND INSTRUMENTATION AND CONTROL  
SYSTEMS

On January 17, 2008, U.S. Nuclear Regulatory Commission staff conducted an in-office review at Shaw AREVA MOX Services in Aiken, SC, of electrical and instrumentation and control engineering information supporting the license application for the Mixed Oxide Fuel Fabrication Facility (MFFF). I am enclosing the in-office review summary and the meeting handouts. The meeting handouts are Official Use Only (OUO) – security related information and proprietary information.

Docket: 70-3098

Enclosure: 1) In-Office Review Summary  
2) Meeting handout entitled “MOX Services Electrical Systems Kickoff Meeting” (OUO)  
3) Meeting handout entitled “MFFF Instrumentation and Control Systems Review Kickoff” (OUO)

cc: w/o enclosures

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Docket 70-3098

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Summary of MOX Electrical and Instrumentation and Control Review Kickoff In-Office Review  
January 16-17, 2008

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PURPOSE

The Nuclear Regulatory Commission (NRC) staff performed a kickoff in-office review of the electrical and instrumentation and control aspects supporting the Mixed Oxide Fuel Fabrication (MFFF) in Aiken, SC, on January 16-17, 2008. This review is a part of staff's review of the adequacy of the applicant's license application.

DISCUSSION

Representatives from the NRC staff traveled to the MFFF to kickoff the electrical and instrumentation and control system review MOX Facility, at the Department of Energy's Savannah River Site, on January 16-17, 2008.

Topics discussed during the electrical systems kickoff included: a) electrical distribution, b) the design bases for Items Relied On for Safety (IROFS); c) electrical capacity and capability; d) emergency diesel generators; e) uninterruptible power supplies and emergency batteries; and f) sample electrical one-line documents.

Topics discussed during the instrumentation and control systems kickoff included: a) a MOX Instrumentation and Control overview; b) typical design of a "hardwired" IROFS; c) typical design of a "digital" IROFS; d) instrumentation and control designs – baseline design criteria; and e) baseline design criteria.

OPEN ISSUES AND CONCLUSIONS

Based on the volume of material introduced at the kickoff meeting it was determined that staff would schedule an in-office review, at the end of February 2008 to examine the documents and design supporting the instrumentation and control system at the MFFF.

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