



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

August 28, 2018

MEMORANDUM TO: Robert K. Johnson, Chief
Fuel Manufacturing Branch
Division of Fuel Cycle Safety, Safeguards,
and Environmental Review
Office of Nuclear Material Safety
and Safeguards

FROM: David H. Tiktinsky, Sr. Project Manager **/RA/**
Fuel Manufacturing Branch
Division of Fuel Cycle Safety, Safeguards,
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Office of Nuclear Material Safety
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SUBJECT: PRINCIPAL STRUCTURE, SYSTEM AND COMPONENT 011
"ELECTROLYSER STRUCTURE"; 014 "EMERGENCY
CONTROL SYSTEM"; 015, "EMERGENCY DC POWER
SYSTEM", 033 "MATERIAL MAINTENANCE AND
SURVEILLANCE PROGRAMS" 039 "PTFE INSULATOR" AND
PSSC 040 "PRESSURE VESSEL CONTROLS" COMPLETION
VERIFICATION REPORTS FOR MIXED OXIDE FUEL
FABRICATION FACILITY UNDER CONSTRUCTION IN AIKEN,
SOUTH CAROLINA (DOCKET NUMBER 70-3098)

The regulatory requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) Paragraph 70.23(a)(8) states that an application for a license will be approved if the Commission determines that, where the proposed activity is the operation of a plutonium processing and fuel fabrication plant, construction of the Principal Structures, Systems and Components (PSSCs) approved pursuant to 10 CFR 70.23(b) has been completed in accordance with the application. PSSCs are safety controls that are identified in the design bases as providing protection against the consequences of accidents or natural phenomena.

As stated in the Final Safety Evaluation Report for the License Application to Possess and Use Radioactive Material at the Mixed Oxide Fuel Fabrication Facility (MFFF) in Aiken, South Carolina issued in December 2010, "As applicable to the specific type of PSSC, NRC construction inspection and/or the technical review programs will verify that the construction of each PSSC listed in Table 5.6-1 of the MFFF Construction Authorization Request (CAR) has been completed and the design basis safety function can be met".

On December 5, 2017, May 9, 2018, and May 17, 2018, CB&I AREVA MOX Services submitted letters notifying the U.S. Nuclear Regulatory Commission (NRC) that PSSC-011 (Electrolyser Structure) (Agencywide Documents Access and Management System (ADAMS) Accession Number ML17339A183); PSSC-015 (Emergency DC Power System)

ML17339A186; PSSC-039 (PTFE Insulator) ML17339A291; PSSC-033 (Material Maintenance) ML18129A099; PSSC-014 (Emergency Control System) ML18137A464; and PSSC-040 (Pressure Vessel Controls) ML18129A091 are complete in accordance with the application in support of the regulatory requirements in 10 CFR 70.23(a)(8).

As stated in the enclosed PSSC closure reports, the staff has completed its verification of PSSC-011, 014, 015, 033, 039 and 040 and has concluded that, as per 10 CFR 70.23(a)(8), that it is completed in accordance with the application.

In accordance with 10 CFR Section 2.390 of the NRC's "Agency Rules of Practice and Procedure," a copy of this Memorandum will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records component of NRC's ADAMS. ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

If you have any questions or comments, please contact me at (301) 415-8740 or via e-mail at David.Tiktinsky@nrc.gov.

Enclosure:
PSSC Completion Verification Reports

cc: see next page

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ADAMS Accession Number: ML18204A212

(*via e-mail)

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