



U.S. Nuclear Regulatory Commission  
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Washington, DC 20555-0001

DCS-NRC-000456  
05 December 2017

Subject: Docket Number 070-03098  
CB&I AREVA MOX Services  
Mixed Oxide Fuel Fabrication Facility  
PSSC-039 Completion Letter

Reference: DCS-NRC-000461, letter from CB&I AREVA MOX Services to NRC, dated 10 August, 2017, 10CFR70.23(a)(8) Completion Process License Application Update

In support of NRC's Principal Structure System and Component (PSSC) verification activities as required by 10CFR70.23(a)(8), CB&I AREVA MOX Services, LLC (MOX Services) hereby provides timely notification that PSSC-039 (PTFE Insulator) construction is complete in accordance with the application. In accordance with Table 17-1 of the License Application (Reference), there is only one ISAS Control Group (Electrolyzer Insulators and Isolators) related to PSSC-039. The electrolyzer IROFS components associated with PSSC-039 are identical to the IROFS components associated with PSSC-026 (Guide Sleeves). Since the IROFS components associated with PSSC-039 are repeated in PSSC-026, PSSC-039 can be administratively closed. The enclosure to this letter provides the completion basis for concluding that PSSC-039 is complete in accordance with the application.

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

Sincerely,

David Del Vecchio  
President and Project Manager

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Enclosure:

PSSC-039 Completion Basis

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**Enclosure**

**PSSC-039 Completion Basis**

## Completion of PSSC-039, PTFE Insulator

### PSSC Description

PSSC-039, PTFE Insulator, is associated with the Construction Authorization Request (CAR) Event Group “AP Electrolyzer”. This CAR event is mapped to Integrated Safety Analysis Summary (ISAS) Events F-05a and F-05b. ISAS Event F-05a pertains to fires involving the titanium electrolyzer during operation and is the subject of this completion letter. ISAS Event F-05b pertains to fires involving the titanium electrolyzer during maintenance. Event F-05b is mapped to PSSC-030, “Maintenance Activity Controls” and outside the scope of this completion letter.

### Summary of Key IROFS Components

The ISAS Control Group mapped to PSSC-039, “PTFE Insulator”, is “Electrolyzer Insulators and Isolators”. This is the only Control Group associated with PSSC-039 and is therefore designated PSSC-039-001 for tracking purposes. There are three electrolyzers included in the MOX Fuel Fabrication Facility (MFFF). One electrolyzer (KDB\*EZR1000) is associated with the Dissolution (KDB) unit and is contained within glovebox KDB\*GB1000. Two electrolyzers (KDD\*EZR1000 and KDD\*EZR2000) are associated with the Dissolution of Chlorinated Feed (KDD) unit and are contained with gloveboxes KDD\*GB1000 and KDD\*GB2000, respectively. As contained in the Fire Nuclear Safety Evaluation (DCS01-AAS-DS-ANS-H-38374), the specific components which comprise the insulators and isolators are as follows:

- Insulating rings
- Tightness rings
- Anode supports
- Cathode spacers
- Collars
- Insulating nozzles
- Insulating sleeves
- Upstream and downstream drip pots
- Centering sleeves

### Summary of Completion Basis

ISAS Control Group “Electrolyzer Insulators and Isolators” is mapped to PSSC-039-001. Since the same Control Group is mapped to PSSC-039 and PSSC-026, the IROFS components associated with PSSC-039-001 are the same as the IROFS components associated with PSSC-026-001. Therefore, PSSC-039-001 is considered a duplicate of PSSC-026-001 and is administratively closed. Closing PSSC-039-001 to PSSC-026-001 is consistent with the information presented in License Application Table 17-1, *PSSC Completion (not including criticality IROFS)*. The basis for concluding that PSSC-039-001 construction is complete is contained in Completion Package DCS01-AAJ-LO-PPK-W-66066-0.