



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

DCS-NRC-000489
01 November 2018

Subject: Docket Number 070-03098
MOX Services, LLC
Mixed Oxide Fuel Fabrication Facility
Notification of Cessation of Project Construction and Request to Terminate
Construction Authorization No. CAMOX-001

References:

1. DCS-NRC-000488, Letter from MOX Services (David Del Vecchio) to Document Control Desk, dated 31 October, 2018, Request for Exemption from Certain Requirements of 10 CFR Part 70, *Domestic Licensing of Special Nuclear Material*
2. Final Safety Evaluation Report for the License Application to Possess and Use Radioactive Material at the Mixed Oxide Fuel Fabrication Facility in Aiken, SC, December 2010, Docket No. 070-03098 (ML103430615)
3. DCS-NRC-000198, Letter from Shaw AREVA MOX Services (David Stinson) to Document Control Desk, dated 16 November 2006, Submittal of License Application, Docket No. 070-03098 (ML063250157)
4. DCS-NRC-000195, Letter from Duke Cogema Stone & Webster (David Stinson) to Document Control Desk, dated 27 September 2006, Request for Exemption from Indemnity Agreement and Financial Protection Requirements, Docket No. 070-03098 (ML062720082)

This letter formally notifies the Nuclear Regulatory Commission (“NRC”) that, as of October 12, 2018, MOX Services, LLC (“MOX Services”) ceased NRC regulated construction activities on the Mixed Oxide Fuel Fabrication Facility (“MFFF”) at the Savannah River Site, near Aiken, South Carolina. MOX Services ceased NRC regulated construction following receipt of a Notice of Termination from the U.S. Department of Energy, National Nuclear Security Administration (“DOE/NNSA”) of the contract between DOE/NNSA and MOX Services to design, build, and operate the MFFF. Due to the cessation of NRC regulated construction activities at the MFFF and the Notice of Termination, MOX Services requests that the NRC terminate Construction Authorization No. CAMOX-001 (the “Construction Authorization”). Additional information to support the NRC’s review of this request is provided in the Enclosure.

Until the NRC terminates the Construction Authorization, MOX Services will continue to adhere to applicable NRC regulations and the terms of the Construction Authorization. There is no nuclear fuel or special nuclear material on the MFFF construction site. Additionally, Classified and Safeguards Information is under DOE/NNSA control. There are no ongoing activities associated with NRC regulated design and construction. MOX Services’ work now primarily

involves activities to preserve the site in a safe and secure manner and inventory materials and design documents for the DOE/NNSA.

On October 31, 2018, MOX Services also submitted a request to the NRC for an exemption from certain 10 CFR Part 70 requirements until the NRC terminates the Construction Authorization (Reference 1). The exemption would allow the NRC staff and MOX Services to avoid unnecessary reporting, inspections, and licensing activities given the status of the MFFF and the cessation of construction activities.

In order to support termination activities, MOX Services requests that the NRC issue the requested Construction Authorization termination within 30 days.

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

Enclosure: Support for Construction Authorization Termination Request

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Enclosure
Support for Construction Authorization Termination
Request

Support for Construction Authorization Termination Request

1.0 Background

MOX Services, LLC (“MOX Services”) was contracted by the U.S. Department of Energy’s National Nuclear Security Administration (“DOE/NNSA”) to design, build, and operate a Mixed Oxide Fuel Fabrication Facility (“MFFF”) at the Savannah River Site, near Aiken, South Carolina. The MFFF would have converted surplus nuclear weapons-grade plutonium into safe, stable mixed oxide (“MOX”) fuel for civilian nuclear power generation. The MFFF is owned by the DOE/NNSA.

The MFFF was being licensed by the NRC pursuant to 10 CFR Part 70 in two phases: construction and operation. For the first phase, the NRC issued Construction Authorization No. CAMOX-001 (the “Construction Authorization”) for the facility in 2005. Following an extension request and other revisions, the Construction Authorization (Revision 4) currently expires in 2025. Construction of the MFFF commenced in 2007 and remained ongoing until October 2018, when MOX Services received the Notice of Termination from the DOE/NNSA of the contract between DOE/NNSA and MOX Services to design, build, and operate the MFFF.

With respect to the second licensing phase, MOX Services submitted a license application (Reference 3) to the NRC pursuant to 10 CFR Part 70 in 2006 to possess and use byproduct and special nuclear material at the MFFF. In 2010, the NRC published its Final Safety Evaluation Report (“FSER”) for the license application to possess and use radioactive material at the MFFF (Reference 2). But the NRC has not yet issued the possession and use license. Thus, MOX Services holds only a Construction Authorization, but not an operating license for the MFFF, and it is not the owner of the MFFF. Nor is MOX Services authorized to possess or use radioactive materials at the MFFF site.

2.0 Proposed Action

In accordance with 10 CFR Part 70, MOX Services is requesting the NRC terminate the Construction Authorization for the MFFF. It is requesting that NRC issue the requested Construction Authorization termination in the next 30 days. Due to the contract termination by the DOE/NNSA, MOX Services ceased NRC regulated construction activities for the MFFF in October 2018. At the present time, MOX Services’ work primarily involves activities to preserve the site in a safe and secure manner and inventory materials and design documents for the DOE/NNSA. Since construction of the MFFF had not been completed, the NRC has not issued an operating license for the MFFF and there is no nuclear fuel or special nuclear material on the MFFF construction site.

3.0 Discussion

(i) Regulatory Requirements

Although there is no NRC regulation that directly applies to the termination of a Construction Authorization during the construction phase (and prior to the receipt of any special nuclear material), MOX Services looked to 10 CFR 70.38 regarding termination of the Construction Authorization. For example, 10 CFR 70.38(c) states: “Each specific license continues in effect, beyond the expiration date if necessary, with respect to possession of special nuclear material until the Commission notifies the licensee in writing that the license is terminated.” Consistent with this regulation, MOX Services is seeking notification from the NRC that the Construction Authorization is terminated.

(ii) MOX Services Principal Activities at the MFFF

As discussed in Section 1.0 of its License Application, Chapter 1, “General Information,” MOX Services had been contracted by the DOE/NNSA to design, build, and operate the MFFF at the Savannah River Site, near Aiken, South Carolina. The MFFF would have converted surplus nuclear weapons-grade plutonium into safe, stable MOX fuel for civilian nuclear power generation. The MFFF is owned by the DOE/NNSA. However, since facility construction was not completed and NRC regulated construction activities have now ceased, the facility was never operated.

(iii) Decommissioning Funding and Waste Management Activities

MOX Services ceased NRC regulated construction activities for the MFFF as a result of the contract termination. The MFFF is owned by the DOE/NNSA and may be repurposed by the DOE/NNSA. As documented in the NRC Final Environmental Impact Statement (FEIS) (NUREG-1767), the plan per the original contract was to return control of the MFFF to DOE/NNSA following completion of the surplus plutonium mission for reuse or decommissioning and is consistent with the approved exemption from decommissioning as documented in the December 2010 NRC FSER (Reference 2).

As stated in the License Application and subsequent request for exemption from indemnity and financial protection requirements (Reference 3 at p. 1-218, Reference 4), the DOE agreed to indemnify the MFFF contractor. NRC approved the exemption from indemnification and financial protection as documented in the December 2010 NRC FSER. (Reference 2 at p. 2-3).

Further, because the MFFF had not been issued a Part 70 license to operate, there is no nuclear fuel or special nuclear material on the MFFF construction site that would have resulted in radiological contamination. For these reasons, there is no need for a site radiation survey to be conducted under 10 CFR Parts 30, 40, or 70. With no radiological contamination associated with the Construction Authorization, the MFFF site should be released pursuant to 10 CFR 20.1402, immediately after termination of the Construction Authorization.

(iv) Material Control and Accounting

Since construction of the MFFF has not been completed, there was no nuclear fuel or special nuclear material on the MFFF construction site. Therefore, there are no material control and accounting issues or concerns that need to be addressed at the site.

(v) Information Security and Protection of Classified Matter

All Classified and Safeguards Information have been transferred to the DOE/NNSA and protected in accordance with DOE/NNSA requirements consistent with License Application Chapter 3.0. The DOE/NNSA issued the personnel security clearances associated with MOX. Personnel security clearances not required for the termination scope of work have been terminated. Personnel security clearances required to support termination activities will be terminated upon completion of that scope of work.

4.0 Environmental Considerations

Terminating a construction authorization is a licensing action that could require an environmental assessment under 10 CFR 51.21, unless a categorical exclusion (“CATX”) in 10 CFR 51.22(c) applies and no special circumstances under 10 CFR 51.22(b) exist.

The CATX identified in 10 CFR 51.22(c)(20) includes:

Decommissioning of sites where licensed operations have been limited to the use of—

- (i) Small quantities of short-lived radioactive materials;
- (ii) Radioactive materials in sealed sources, provided there is no evidence of leakage of radioactive material from these sealed sources; or
- (iii) Radioactive materials in such a manner that a decommissioning plan is not required by 10 CFR 30.36(g)(1), 40.42(g)(1), or 70.38(g)(1), and the NRC has determined that the facility meets the radiological criteria for unrestricted use in 10 CFR 20.1402 without further remediation or analysis.

This CATX captures decommissioning activities at sites where contamination from radioactive material is determined to be nominal. In the case of the MFFF, MOX Services never received a possession and use license. Therefore, no associated radiological contamination exists because construction was not completed and nuclear material was never procured or brought on site. As a result, a decommissioning plan for this site is not required by 10 CFR 30.36(g)(1), 40.42(g)(1), or 70.38(g)(1), and the site meets the radiological criteria for unrestricted use in 10 CFR 20.1402 without further remediation or analysis. Further, no special circumstances under 10 CFR 51.22(b) apply. The factors listed in 10 CFR 51.22(c)(20) fully address the circumstances here because there is no environmental impact associated with terminating the Construction Authorization, which does not even reach the nominal impacts anticipated by the CATX in Section 51.22(c)(20). Therefore, application of the CATX to the termination of the Construction

Authorization is warranted. Consequently, in accordance with 10 CFR 51.22(c)(20), an environmental assessment is not required for the termination of the Construction Authorization.

5.0 Conclusion

MOX Services determined that the request to terminate CAMOX-001 satisfies the CATX criteria set forth in 10 CFR 51.22(c)(20) for purposes of a categorical exclusion. MOX Services also determined that no associated radiological contamination exists because construction was not completed, the MFFF was not issued an operating license, and nuclear material was never procured or brought onto the MFFF site. MOX Services contends that termination of CAMOX-001 does not represent an increased risk to public health and safety and the environment and that a sufficient basis exists to terminate the Construction Authorization.