



NUCLEAR REGULATORY COMMISSION

[Docket No. 70-7004; NRC-2024-0063]

American Centrifuge Operating, LLC; Completion of Operational Readiness Reviews

AGENCY: Nuclear Regulatory Commission.

ACTION: Inspection reports; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) has conducted inspections at the American Centrifuge Plant (ACP) located in Piketon, Ohio and has authorized the introduction of uranium hexafluoride (UF₆) to the High-Assay Low-Enriched Uranium (HALEU) demonstration cascade module.

DATES: [INSERT DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].

ADDRESSES: Please refer to Docket ID NRC-2024-0063 when contacting the NRC about the availability of information regarding this document. You may obtain publicly available information related to this document using any of the following methods:

- **Federal Rulemaking Website:** Go to <https://www.regulations.gov> and search for Docket ID NRC-2024-0063. Address questions about Docket IDs in Regulations.gov to Stacy Schumann; telephone: 301-415-0624; email: Stacy.Schumann@nrc.gov. For technical questions, contact the individual listed in the “FOR FURTHER INFORMATION CONTACT” section of this document.

- **NRC’s Agencywide Documents Access and Management System**

(ADAMS): You may obtain publicly available documents online in the ADAMS Public Documents collection at <https://www.nrc.gov/reading-rm/adams.html>. To begin the search, select “Begin Web-based ADAMS Search.” For problems with ADAMS, please contact the NRC’s Public Document Room (PDR) reference staff at 1-800-397-4209, at 301-415-4737, or by email to PDR.Resource@nrc.gov. For the convenience of the reader, instructions about obtaining materials referenced in this document are provided in the “Availability of Documents” section.

- **NRC's PDR:** The PDR, where you may examine and order copies of publicly available documents, is open by appointment. To make an appointment to visit the PDR, please send an email to PDR.Resource@nrc.gov or call 1-800-397-4209 or 301-415-4737, between 8 a.m. and 4 p.m. eastern time (ET), Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: Yawar Faraz, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-415-7220; email: Yawar.Faraz@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Discussion

The NRC staff conducted an operational readiness and management measures verification review and prepared inspection reports documenting its findings in accordance with the requirements of the NRC's Inspection Manual. The reports are available for review and are listed in Section II of this notice. The publication of this notice satisfies the requirements of paragraph 70.32(k) of title 10 of the *Code of Federal Regulations* (10 CFR), and section 193(c) of the Atomic Energy Act of 1954, as amended.

License Condition 11 of the ACP license authorized the HALEU demonstration program on June 11, 2021, but prohibited the introduction of UF₆ into the HALEU demonstration cascade modules until the NRC completed an operational readiness and management measures verification review. The NRC staff's review verified that the licensee was in compliance with the performance requirements of 10 CFR 70.61, and that the systems, structures, and components designed to support safe operation of the HALEU Demonstration Cascade were constructed in accordance with license requirements. By letter dated June 12, 2023, the NRC authorized the American Centrifuge Operating, LLC (ACO) to introduce UF₆ into the HALEU demonstration cascade module to produce Category III quantities of special nuclear material (SNM) at the ACP. By letter dated September 21, 2023, the NRC authorized ACO to commence

enrichment operations in the HALEU demonstration cascade module to produce Category II quantities of SNM up to the quantity approved on June 11, 2021 at the ACP.

II. Availability of Documents

The documents identified in the following table are available to interested persons through ADAMS, as indicated.

Document Description	ADAMS Accession No.
Centrus Energy Corp., American Centrifuge Operating – License Amendment 13 – Approval to Operate Sixteen Centrifuges to Demonstrate Production of HALEU, dated June 11, 2021 Enclosure 1 Enclosure 8	ML21138A827 ML21148A291 ML21138A828
American Centrifuge Operating, LLC - American Centrifuge Plant, Authorization to Introduce UF ₆ into HALEU Demonstration Cascade Module, dated June 12, 2023	ML23163A168
American Centrifuge Operating, LLC - American Centrifuge Plant, Authorization to Commence Enrichment Operations in the HALEU Demonstration Cascade Module to Produce Category II Quantities of SNM, dated September 21, 2023	ML23261A587
Inspection Report 2021-006: Construction and Quality Assurance, dated May 10, 2021	ML21130A343
Inspection Report 2021-009: Operational Safety, Radiation Protection, Nuclear Criticality Safety, Permanent Plant Modifications, Fire Protection, Effluent Control and Environmental Protection, and Permanent Plant Modifications, dated January 27, 2022	ML22026A367
Inspection Report 2023-007: Operational Safety, Radiation Protection, Nuclear Criticality Safety, Permanent Plant Modification, and Fire Protection, dated May 9, 2023	ML23128A350
Cover Letter to Inspection Report 2023-405*: Material Control and Accounting Program, dated May 9, 2023	ML23128A357
Cover Letter to Inspection Report 2023-406*: Physical Security, dated June 5, 2023	ML23152A276
Cover Letter to Inspection Report 2023-407*: Physical Security, dated September 7, 2023	ML23248A544
Cover Letter to Inspection Report 2021-408*: Material Control and Accounting Program, dated September 12, 2023	ML23256A229

*These report enclosures contain “Security Related Information” and will not be made publicly available in accordance with 10 CFR 2.390(d)(1). The ADAMS accession number for the associated public cover letter is provided.

Dated: April 16, 2024.

For the Nuclear Regulatory Commission.

Samantha C. Lav,

Chief,

Fuel Facility Licensing Branch,

Division of Fuel Management,

Office of Nuclear Material Safety and Safeguards.

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