



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
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ATLANTA, GEORGIA 30303-8960

May 14, 2003

Chief, Rules Review and Directives Branch
U.S. Nuclear Regulatory Commission
Mail Stop T6-D59
Washington, D.C. 20555-0001

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Rules and Directives
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**RE: EPA Review and Comments on
Construction and Operation of a Mixed Oxide Fuel Fabrication (MOX) Facility
NUREG-1767, at the Savannah River Site, South Carolina
Draft Supplemental General Management Plan and
Draft Environmental Impact Statement (DEIS)
CEQ No. 030070**

Dear Chief:

The U.S. Environmental Protection Agency (EPA) reviewed the subject *Draft Environmental Impact Statement (DEIS)*, Pursuant to Section 102(2)(C) of the National Environmental Policy Act (NEPA), and Section 309 of the Clean Air Act. The document provides information to educate the public regarding general and project-specific environmental impacts and analysis procedures, and follows the public review and disclosure aspects of the NEPA process. The purpose of this letter is to inform you of the results of our review.

The stated goal of the project is to ensure that plutonium produced for nuclear weapons and declared excess to national security is converted to proliferation-resistant forms. DOE proposes to design, construct, and operate a proposed Mixed Oxide (MOX) Fuel Fabrication Facility that would convert depleted uranium and surplus weapons-grade plutonium into MOX fuel. The proposed MOX facility would be located at the Savannah River Site in South Carolina, and would be part of DOE's surplus plutonium disposition program. Because Congress gave the NRC licensing and related regulatory authority over the proposed MOX facility, its construction and operation will require NRC approvals, issued pursuant to the *Code of Federal Regulations*, Title 10, Part 70 (10 CFR Part 70).

Support facilities are part of the proposed action: an associated Pit Disassembly and Conversion Facility (PDCF) would be constructed, along with a Waste Solidification Building (WSB). The PDCF would provide for the recovery of plutonium from disassembled weapons, converting it to plutonium dioxide powder for feedstock. The WSB would be used for processing liquid waste streams and converting them to solid transuranic waste (TRU) or low-level waste (LLW). A pipeline would also be constructed between the support facilities and the MOX facility.

R-RIDS = ADM-03
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Overall, the DEIS is well-written and clearly explains the proposed action and the alternatives. We particularly appreciate the discussion of mitigation plans which was included in the DEIS. Based on EPA's review of the document, the document received an "EC-1" rating; that is, environmental concerns exist regarding some aspects of the proposed project. Specifically, hazardous and radioactive wastes generated from the proposed facility will require specialized waste management procedures, as well as safety and emergency response plans, in order to prevent impacts.

Transuranic (TRU), low-level radioactive waste (LLW), and hazardous and non-hazardous (both liquid and solid) wastes are expected to be generated during operation of the proposed facility, and will require specialized handling, storage, transportation and disposition measures in order to safeguard human health and the environment.

Exhausts from the proposed facility will be treated to remove radioactive materials before the exhaust is discharged to the atmosphere. Monitoring is planned during the operation and decommissioning phases of the project. Groundwater quality impacts are not anticipated, since there would be no discharges to underlying aquifers; regular monitoring of the double-walled liquid high-alpha waste pipeline is planned.

Thank you for the opportunity to comment on this DEIS. If you have any questions or require technical assistance, you may contact Ramona McConney of my staff at (404) 562-9615.

Sincerely,

A handwritten signature in black ink, appearing to read "Heinz Mueller", with a stylized, cursive script.

Heinz J. Mueller, Chief
Office of Environmental Assessment

Attachment

**EPA Review and Comments on
Construction and Operation of a Mixed Oxide Fuel Fabrication (MOX) Facility
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Draft Supplemental General Management Plan and
Draft Environmental Impact Statement (DEIS)**

General: The DEIS clearly describes the proposed action and the anticipated environmental impacts of the project. We appreciate the tables which summarize the data in the DEIS.

Endangered Species: The DEIS discusses the presence of endangered species in the vicinity of the Savannah River Site. The document states that the facility construction and operation would have no effect on threatened and endangered species under USFWS and SCDNR jurisdictions.

Air Quality: The DEIS states that transuranic, (TRU), and low-level radioactive wastes, (LLW), will be generated during operation of the proposed facility. Exhausts from the proposed facility will be treated to remove radioactive materials before the exhaust is discharged to the atmosphere. Please provide further information in the FEIS regarding frequency and duration of air quality monitoring measures and monitoring of the facility's emissions to the atmosphere.

The DEIS discusses the need to demonstrate that the offgas treatment system will limit hydrazene, (listed as a hazardous air pollutant under the Clean Air Act), to very low levels. The DEIS states that these levels would not cause adverse health impacts to members of the public or employees. Information about plans for monitoring the offgas treatment system for hydrazene should be included in the FEIS.

Radiological Impacts: The DEIS states that annual radiological impacts to SRS employees and the public from exposure to radioactive air pollutants are expected to be small. The DEIS also cites plans for emergency preparedness. Plans for regular monitoring of the double-walled liquid high-alpha waste pipeline are discussed in the document.

Hazardous Waste Management: Hazardous waste from the proposed MOX facility would be shipped off-site to commercial RCRA permitted facilities. Estimated volumes for TRU, low-level, and hazardous waste would represent approximately 3% and 20% of Waste Isolation Pilot Plant (WIPP) and SRS storage capacities.