

**DEPARTMENT OF DEFENSE
DEPARTMENT OF THE ARMY**

**DRAFT FINDING OF NO SIGNIFICANT IMPACT
DECOMMISSIONING AND DISMANTLEMENT OF THE DEACTIVATED
SM-1A NUCLEAR POWER PLANT**

United States Army Garrison Alaska Fort Greely
Delta Junction, Alaska

Proposed Action

The United States Army Corps of Engineers (USACE) provides notice that a Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FNSI) have been prepared for the Army's Proposed Action to decommission and dismantle the Deactivated Stationary Medium Power Model 1A Nuclear Power Plant (SM-1A) at United States (U.S.) Army Garrison Alaska Fort Greely (Fort Greely) and release the property for unrestricted use.

Under the Proposed Action, USACE would 1) complete the proposed decommissioning and dismantlement of SM-1A in accordance with a Decommissioning Plan (DP) approved by the Army Reactor Office (ARO); 2) terminate the SM-1A decommissioning permit issued by the U.S. Army Deputy Chief of Staff G-3/5/7 through the ARO; and 3) release the SM-1A site for unrestricted use in accordance with U.S. Nuclear Regulatory Commission regulations established in 10 Code of Federal Regulations (CFR) 20.1402, *Radiological Criteria for Unrestricted Use* and adopted by the Army. Implementation of the Proposed Action would occur over approximately 6 years beginning in 2022 and ending in 2028.

The Draft EA and Draft FNSI have been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, as amended (Title 42, United States Code [USC] 4321 et seq.); Council on Environmental Quality (CEQ) regulations implementing NEPA (40 Code of Federal Regulations [CFR] 1500-1508, *CEQ Regulations for Implementing the Procedural Provisions of NEPA*)¹ (1978, as amended in 1986 and 2005); and the Army's NEPA regulations (32 CFR 651, *Environmental Analysis of Army Actions*).

USACE has thoroughly reviewed the Proposed Action and determined that it would not have significant adverse effects on the natural or human environment. Therefore, the Proposed Action does not require the preparation of an Environmental Impact Statement (EIS) as defined in 32 CFR 651.41, *Conditions requiring an EIS*, and 32 CFR 651.42, *Actions normally requiring an EIS*.

¹ Substantive preparation of the Draft Environmental Assessment (EA) began prior to updates to the regulations implementing the provisions of NEPA that became effective on September 14, 2020. Therefore, the Draft EA has been prepared in accordance with the NEPA regulations that were previously in effect.

Purpose and Need

The **purpose** of the Proposed Action is to safely remove, transport, and dispose of all materials and equipment, structures, and residual contamination associated with SM-1A; release the SM-1A site for unrestricted use in accordance with radiological dose criteria established by the NRC in 10 CFR 20.1402 and adopted by the Army; and terminate the U.S. Army-issued SM-1A decommissioning permit. The **need** for the Proposed Action is to complete the decommissioning of SM-1A within 60 years (by 2032) of permanent cessation of operations in accordance with NRC regulations 10 CFR 50.82(a)(3) and AR 50-7.

Background

SM-1A was constructed between 1958 and 1962 and operated from 1962 to 1972. Following the reactor's final shutdown in 1972, the highly radioactive nuclear fuel was removed and disposed of, minor decontamination was performed, and SM-1A was placed into a safe storage (SAFSTOR) configuration. The decommissioning of a nuclear reactor is required within 60 years of permanent cessation of operations in accordance with U.S. Nuclear Regulatory Commission (NRC) regulations in 10 CFR 50.82(a)(3) and AR 50-7, *Army Reactor Program*, which establishes the Army's intent to follow NRC guidelines. Therefore, the decommissioning of SM-1A must be completed by 2032. In its current condition, SM-1A does not support the Army's mission in Alaska or at Fort Greely.

Existing Conditions

SM-1A is in an approximately 1.5-acre fenced site in the central portion of Fort Greely. Fort Greely comprises approximately 6,840 acres near Delta Junction, Alaska, approximately 100 miles southeast of Fairbanks. The deactivated reactor and associated systems are primarily in a cylindrical structure—known as the Vapor Container (VC)—adjacent to Building 606 North. Building 606 North and Building 606 South also contain critical infrastructure associated with Fort Greely's existing utility systems. Building J-5 (also known as Building 607), immediately east of the VC, is used for parts and materials storage.

Buildings 606 North, 606 South, and 607 (also known as J-5) are owned by Doyon Utilities, LLC, Fort Greely's utility privatization (UP) contractor. Access to unrestricted areas and equipment associated with SM-1A is controlled by the UP contractor, while access to restricted areas containing radioactive waste is controlled by USACE. The federal government maintains ownership of SM-1A reactor components and associated radioactive waste. Fort Greely owns the land associated with SM-1A facilities.

The Army has determined, and the Alaska State Historic Preservation Office (SHPO) has concurred, that the SM-1A Reactor Facility is individually eligible for listing in the National Register of Historic Places (NRHP). USACE is the lead federal agency for purposes of consultation regarding the Proposed Action under Section 106 of the National Historic Preservation Act (NHPA).

Alternatives Analyzed

The EA analyzes the Proposed Action Alternative and the No Action Alternative. These alternatives are described below.

Under the Proposed Action Alternative, USACE would implement the ARO-approved DP to decommission and dismantle buildings and infrastructure associated with SM-1A, including Building 606 North, the VC, and Building J-5. All radioactive and non-radioactive waste (including soils containing residual contamination) would be characterized, packaged, transported, and disposed of in accordance with applicable federal, state, and local regulatory requirements. Construction and demolition (C&D) waste would be recycled to the extent practicable, or disposed of in Alaska at on- or off-post landfills, as applicable. Radioactive waste, along with non-radioactive regulated solid waste that cannot be disposed of in Alaska (e.g., lead, polychlorinated biphenyls), would be transported by trucks, trains, and vessels along existing routes for disposal at permitted facilities in the contiguous 48 states. Excavated areas of the SM-1A would be backfilled with clean fill soils meeting applicable Fort Greely requirements to support release of the site for unrestricted future use in accordance with radiological dose criteria in 10 CFR 20.1402.

Following completion of the Proposed Action Alternative, no remnants of SM-1A would remain on site, and the decommissioning permit would be terminated. The Proposed Action Alternative would fulfill the Proposed Action's purpose and need as described above.

Under the No Action Alternative, USACE would continue to maintain SM-1A in a SAFSTOR condition under its current Reactor Possession Permit (SM1A-1-19, Amendment 1-20). Decommissioning would not take place within 60 years of SM-1A's deactivation. Although the No Action Alternative does not meet the Proposed Action's purpose and need, it is analyzed in the EA in accordance with 40 CFR 1502.14, *Alternatives Including the Proposed Action*, to provide a comparative baseline for the analysis of potential effects from the Proposed Action Alternative.

Environmental Effects

The Draft EA analyzes potential environmental impacts from the Proposed Action Alternative and No Action Alternative to the following resources: cultural resources, water resources, socioeconomics and environmental justice, biological resources, air quality, transportation and traffic, utilities, soils, waste, and safety and health. Neither alternative would have significant adverse impacts on these resources. The Proposed Action Alternative would incorporate best management practices (BMPs) to proactively minimize environmental impacts and comply with applicable environmental regulatory requirements. The development and implementation of formal mitigation measures would not be required because potential impacts from the Proposed Action Alternative would be less than significant. The Draft EA determined that the Proposed Action Alternative would have beneficial short-term and/or long-term effects on stormwater management and groundwater, the local demography and economy, soils, radioactive and non-radioactive waste, and safety and health; and a cumulatively beneficial effect on safety and health.

The Proposed Action Alternative would have an *adverse effect* on historic properties under NHPA Section 106. In consultation with the Alaska SHPO and participating Section 106 consulting parties, USACE will execute a memorandum of agreement (MOA) that will resolve the adverse effect consistent with 36 CFR 800.6(c) and ensure that it remains less-than-significant. Proposed draft stipulations in the Draft MOA consist of the following:

- A. *Historic American Engineering Record (HAER) Level III-Equivalent Documentation*: HAER-equivalent documentation is appropriate to resolve adverse effects on significant historic properties, such as the SM-1A Reactor Facility. USACE shall prepare, or direct to be prepared, documentation equivalent to HAER Level III standards as defined in the *Secretary of the Interior Standards and Guidelines for Architectural and Engineering Documentation*.

The HAER Level III-equivalent documentation shall include the SM-1A Reactor Facility, including Buildings 606 and 607 and associated infrastructure. The documentation will include information obtained from USACE's Office of History and Fort Greely, including motion picture film, photographs, and documents, as appropriate.

- B. Upon completion, USACE will submit the draft documentation to the Signatories and other consulting parties for their thirty (30) day review. USACE shall incorporate and/or respond to all submitted comments before finalizing the documentation.
- C. USACE shall provide copies of the final documentation to SHPO, Fort Greely, and the USACE Office of History. USACE will identify other appropriate repositories for the documentation in consultation with the Signatories and other consulting parties. USACE shall ensure the resulting documentation is suitable for dissemination to the public with the goal of creating awareness for the historical significance of the SM-1A Reactor Facility. USACE shall provide copies of the documentation to the other consulting parties upon written request.
- D. Within two (2) years of USACE's award of the decommissioning and dismantlement contract, USACE shall distribute a draft digital version of a proposed historical plaque/marker to the Signatories and other consulting parties. This historical plaque/marker's design shall be agreed upon by the Signatories with input from the other consulting parties prior to installation. Within one (1) year of completion of the decommissioning and dismantlement, USACE/Fort Greely shall erect the agreed upon plaque/marker at the previous site of SM-1A. Additional plaques/markers shall be installed at publicly accessible sites. These additional plaques/ markers shall have their designs and locations agreed upon by the Signatories and consulting parties prior to installation. Upon final installation of these historical plaque/markers, USACE/Fort Greely shall photograph the installed plaque/markers and distribute to all the Signatories and consulting parties.
- E. During decommissioning and dismantlement, when safe and feasible, USACE shall salvage historical items from the SM-1A Reactor Facility, including but not limited to informational safety plaques and currently unknown salvageable time capsule contents. Within two (2) years of USACE's award of the decommissioning and dismantlement contract, USACE will develop a detailed plan for the

identification, curation, storage, and transportation of these historical items, along with specific steps for consultation. USACE shall submit this plan for review and comment by the Signatories and other consulting parties.

Salvaged items will remain under the control of the Army; items shall be salvaged from SM-1A and sent to an as-yet unidentified facility for storage. USACE will distribute a letter to the Signatories and other consulting parties with an item inventory and location, as well as a point of contact to help retrieve items for future exhibits. USACE shall inform the Signatories and other consulting parties of circumstances that will prevent salvage and display of these items.

- F. Since the HAER Level III-equivalent documentation will document the decommissioning and dismantlement process, USACE shall complete the requirements of Stipulations I.A through I.C within one (1) year of completion of the decommissioning and dismantlement of the SM-1A Reactor Facility (currently estimated for completion by 2028).

The Section 106 MOA will be executed before this FNSI is signed. With implementation of measures specified in the Section 106 MOA and other applicable BMPs described in the EA, the Proposed Action Alternative would have no significant adverse impacts on the natural or human environment.

Finding of No Significant Impact

Based on information gathered and analyzed in the EA, the Department of the Army finds that implementing the Proposed Action would not significantly impact the quality of the natural or human environment as defined in 32 CFR 651.41-42; therefore, preparation of an EIS is not required.

U.S. Army Corps of Engineers, Baltimore District

COL John T. Litz
District Engineer

Date

U.S. Army Garrison Fort Greely

LTC Joel M. Johnson
Garrison Commander

Date