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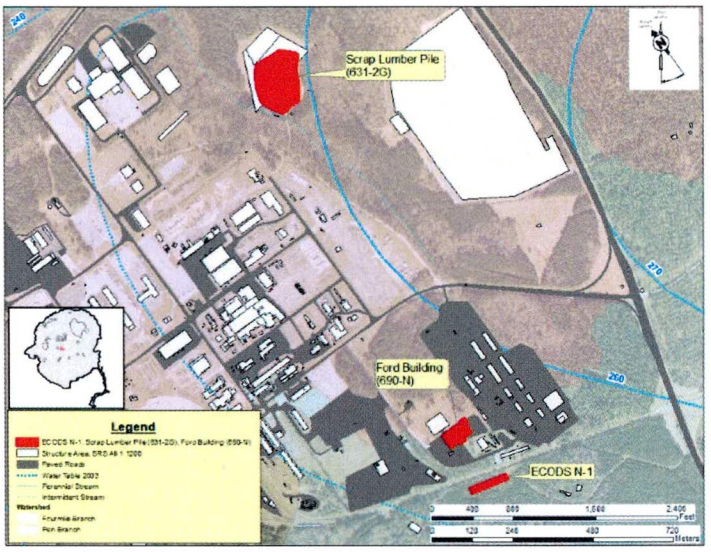
United States Department of Energy Statement of Basis/Proposed Plan Fact Sheet for the ECODS N-1, CSSLP, and Ford Building OU, SEMS Number: 93

SRNS-RP-2022-00528

Savannah River Site, South Carolina **December 2022**

INTRODUCTION



This fact sheet summarizes the Statement of Basis/Proposed Plan for the Early Construction and Operational Disposal Site (ECODS) N-1 (no building number [NBN]), Central Shops Scrap Lumber Pile (631-2G) (CSSLP), and Building 690-N, Process Heat Exchanger Repair Facility (aka Ford Building) Operable Unit (OU) located at the Savannah River Site (SRS). These three subunits will be referred to as the ECODS N-1, CSSLP, and Ford Building OU. The United States Department of Energy owns and operates the SRS. Hazardous substances that are regulated under the federal law requirements of the Resource Conservation and Recovery Act and the Comprehensive Environmental Response, Compensation, and Liability Act are managed at the SRS as part of a comprehensive cleanup program.

A remedial action is needed at the ECODS N-1, CSSLP, and Ford Building OU because asbestos containing material is present in subsurface soils at the ECODS N-1 subunit; arsenic is present in surface soil and in surface sediment within the CSSLP subunit; cesium-137 and polychlorinated biphenyls (PCBs) are present on the Ford Building remnant concrete slab; and cobalt-60 is present in surface soils surrounding the slab at the Ford Building subunit. The presence of these contaminants may pose a threat to human health and the environment. The Statement of Basis/Proposed Plan for the ECODS N-1, CSSLP, and Ford Building OU outlines the range of remedial alternatives evaluated to reduce the risk to contaminated media at each subunit and presents the proposed remedy. The document describes how the public can comment on the proposed remedial action through written comments and by participating in public meetings.

ECODS N-1, CSSLP, AND FORD BUILDING OU BACKGROUND

ECODS N-1 Subunit

The ECODS N-1 subunit is located south of N Area (i.e., Central Shops) and consists of relatively flat terrain, encompassed with standing timber. The subunit is approximately (~)350 feet (ft) long

by 50 ft wide. The site was used from August 1952 to June 1954 for disposal of construction debris and other non-radioactive waste materials. The waste was buried in two trenches, each ~150 ft long and located end-to-end.

Three separate characterization efforts were conducted, and no threat to human or ecological receptors, threat of migration of contaminants to groundwater, or presence of principal threat source material (PTSM) were identified for this unit. However, asbestos-containing material (fragments of cementitious paneling) was encountered during the 2020 characterization effort. The material was covered with soil at a depth of about 3 ft below ground surface along with other construction debris.

CSSLP Subunit

The CSSLP subunit is located north of the N Area facility boundary in slightly southwestern sloping terrain, covered by immature timber and heavy underbrush. The subunit is split into two separate areas, the Upland Area and the Surface Water Impoundment Area. The Upland Area is ~3 acres, and the Surface Water Impoundment Area is ~1 acre. Starting in 1951 the unit was used for equipment laydown and rubble storage in addition to an area for burning construction-related material. Historically, the CSSLP was used to burn various unknown types and quantities of wood, which may have included treated lumber and creosote-treated wood. Starting in 1975, operating procedures called for the CSSLP to receive inert, nonhazardous materials including nails, hinges, scrap lumber, poles, crates, pallets, and unsalvageable wood products. Some time prior to 1996, the Surface Water Impoundment Area was created to capture surface water runoff from the Upland Area of the CSSLP. Active burning at the CSSLP ended in the mid-2000s.

A risk assessment determined that exposure to arsenic in surface soil within the Upland Area and surface sediment within the Surface Water Impoundment Area exceeds an acceptable risk level (1E-06) for the hypothetical future resident and future industrial worker receptor scenarios. A risk greater than or equal to 1E-06 indicates a probability of one chance in 1,000,000 of an individual developing cancer. No threat to human or ecological receptors, threat of migration of contaminants to groundwater, or presence of PTSM were identified for the surface water within the Surface Water Impoundment Area.

Ford Building Subunit

The Ford Building subunit is located in the N Area facility boundary in relatively flat terrain, with minimal vegetation. The Ford Building was constructed in the 1950s as a one-story metal frame structure on a concrete pad, covering 9,700 ft^2. The building operated from the 1950s until the early 2000s. It was initially used for testing control rod drive mechanisms prior to their installation in the SRS reactors, then modified as a facility to repair leaking contaminated process water heat exchangers from SRS reactors, and finally used to house construction crews and store miscellaneous equipment and supplies that were chemically and radiologically contaminated.

In support of facility Deactivation and Decommissioning (D&D), a risk evaluation of the Ford Building slab and the soils beneath the slab identified the presence of cesium-137 and PCBs on the concrete slab as a problem warranting action for the residential and industrial worker scenarios. In 2021, the D&D phase of the Ford Building was completed, and the facility structure was demolished to its respective slab and an engineered concrete cover system was installed over the entire remnant concrete slab area.

A risk assessment of the soils surrounding the Ford Building determined that exposure to cobalt-60 in surface soils exceeds an acceptable risk of 1E-06 for the hypothetical future resident and future industrial worker receptor scenarios. No threat to ecological receptors, threat of migration of contaminants to groundwater, or presence of PTSM were identified for the surrounding soils.

The ECODS N-1, CSSLP, and Ford Building OU is in an area currently designated for industrial use. No current or projected future development of the OU is planned, nor is the current land use expected to change. Groundwater is not part of the OU and will be addressed by the Central Shops Groundwater OU.

CLEANUP GOALS

Contaminants are present at all three subunits at levels that are not suitable for unrestricted use. Cleanup goals for the ECODS N-1, CSSLP, and Ford Building OU include the following:

- Prevent human exposure (residential and industrial worker) to friable asbestos present in the subsurface at the ECODS N-1 subunit.

- Prevent human exposure (residential and industrial worker) to arsenic in surface soils 0-1 ft within the Upland Area, and surface sediments 0-1 ft within the Surface Water Impoundment Area, at the CSSLP subunit at levels exceeding 1E-06 risk and/or SRS background concentration.

- Prevent human exposure (residential and industrial worker) to cesium-137 at the Ford Building remnant concrete slab at levels exceeding 1E-06 risk and to PCBs above 1 mg/kg for free release. There is no exposure risk to human receptors under the current configuration (i.e., concrete cover system).

- Prevent human exposure (residential and industrial worker) to cobalt-60 in surface soils 0-1 ft at the Ford Building subunit at levels exceeding 1E-06 risk.

PROPOSED REMEDY

The preferred remedial alternative for each subunit is identified below:

The Land Use Controls (LUCs) alternative was selected as the preferred alternative at the ECODS N-1 subunit. LUCs would include engineering controls (signs indicating access restrictions and the presence of asbestos containing material) and administrative measures (deed restrictions, excavation permit restrictions, and worker protection programs) to effectively reduce exposure of contaminated media to human receptors. This alternative does not support unrestricted land use and would require five-year remedy reviews.

Excavation (hot spot removal) and disposal was selected as the preferred alternative at the CSSLP subunit. This alternative includes excavating contaminated media exceeding the 1E-06 risk threshold and/or SRS background concentration down to 1 ft below ground surface, disposing of the contaminated media off-site, and backfilling with clean soil to grade. This alternative will eliminate exposure of contaminated media to human receptors. The preferred action supports unrestricted land use and would not require five-year remedy reviews.

LUCs to prevent human exposure to cesium-137 and PCBs on the remnant concrete slab and cobalt-60 in surface soils surrounding the slab was selected as the preferred alternative for the Ford Building subunit. LUCs would include engineering controls (warning and 'no trespassing' signs, as well as inspection and maintenance of the concrete cover system) and administrative measures (deed restrictions, excavation permit restrictions, and worker protection programs) to effectively reduce exposure of contaminated media to human receptors. This alternative does not support unrestricted land use and would require five-year remedy reviews.

The United States Environmental Protection Agency and the South Carolina Department of Health and Environmental Control concur with the proposed remedy for the ECODS N-1, CSSLP, and Ford Building OU.

FOR MORE INFORMATION

The Administrative Record File, which contains the information pertaining to the selection of the response action, is available at the following locations:

US Department of Energy
Public Reading Room
Gregg-Graniteville Library
University of South Carolina – Aiken
471 University Parkway
Aiken, South Carolina 29801
(803) 641-3456

Thomas Cooper Library
Government Information and Maps Department
University of South Carolina
1322 Greene Street
Columbia, South Carolina 29208
(803) 777-4841

The FFA ARF is available electronically at the following address: http://www.srs.gov/general/programs/soil/arf/arfirf.html.

Hard copies of the Statement of Basis/Proposed Plan for the ECODS N-1, CSSLP, and Ford Building OU are available at the following locations during the public comment period:

Reese Library
Government Information Department
Augusta University
2500 Walton Way
Augusta, Georgia 30904
(706) 737-1744

Asa H. Gordon Library
Savannah State University
2200 Tompkins Road
Savannah, Georgia 31404
(912) 358-4324

HOW TO SUBMIT COMMENTS

The public comment period for the Statement of Basis/Proposed Plan for the ECODS N-1, CSSLP, and Ford Building OU begins February 16, 2023 and ends April 2, 2023. To request a public meeting during the public comment period, to obtain more information concerning this document, or to submit written comments, contact one of the following:

Barbara Smoak
Savannah River Nuclear Solutions, LLC
Savannah River Site
Building 730-1B
Aiken, South Carolina 29808
(803) 952-8060
barbara.smoak@srs.gov

The South Carolina Department of Health and Environmental Control
Attn: Ms. Stacey French, P.E., Director
Division of Waste Management
Bureau of Land and Waste Management
2600 Bull Street
Columbia, South Carolina 29201
(803) 898-2000