

# The Savannah River Site Environmental Bulletin

February 21, 2018

Volume 30, Number 1

## ***Notice Of Proposed Floodplain and Wetland Action at the Savannah River Site***

The Department of Energy has proposed herbicide application at certain utility rights-of-way floodplain and wetland crossings to effectively control tree growth. Herbicide application will be by hand using backpack sprayers. A Floodplain and Wetland Assessment is being prepared in compliance with 10 CFR 1022 as documentation of potential impacts of the proposed action. The rights-of-way crossings subject to the assessment are associated with the watersheds of Upper Three Runs, Four Mile Branch, Pen Branch, Steel Creek, and Lower Three Runs within Aiken County, South Carolina and Barnwell County, South Carolina. A fifteen (15) day public comment period on the proposed action will be from February 21, 2018 to March 8, 2018.

Hard copies of the Flood Plain and Wetland Assessment are available at the following locations:

- Reese Library Government Information Section at Augusta University in Augusta, GA; and
- Asa H. Gordon Library at Savannah State University in Savannah, GA.

An electronic copy of the Flood Plain and Wetland Assessment can be found at the following website:

[http://www.srs.gov/general/pubs/FPWA\\_SRNS-J2210-2017-00093\\_r1.pdf](http://www.srs.gov/general/pubs/FPWA_SRNS-J2210-2017-00093_r1.pdf)

Copies of the Floodplain and Wetland Assessment for Herbicide Application to Utility Rights-of-Way at the Savannah River Site will be available in the Administrative Record after the end of the public comment period. The Administrative Record is available in the information repositories listed below:

- DOE Public Reading Room at the Gregg-Graniteville Library at the University of South Carolina (USC), Aiken campus in Aiken, SC; and
- Thomas Cooper Library Government Documents Department at USC in Columbia, SC.

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## ***Finding of No Significant Impact for the Final Environmental Assessment (EA) for the Acceptance and Disposition of Spent Nuclear Fuel Containing U.S.-Origin Highly Enriched Uranium from the Federal Republic Of Germany***

Issued By: United States Department of Energy

Action: Finding of No Significant Impact (FONSI)

**Summary:** The Department of Energy (DOE) has completed the Final Environmental Assessment for the Acceptance and Disposition of Spent Nuclear Fuel Containing U.S.-Origin Highly Enriched Uranium from the Federal Republic of Germany (DOE/EA-1977) (Spent Nuclear Fuel from Germany EA). DOE prepared this Spent Nuclear Fuel from Germany EA to evaluate potential environmental impacts of the receipt, storage, processing and disposition of certain spent nuclear fuel (SNF) from a research and development program of the Federal Republic of Germany (Germany). DOE is considering the feasibility of accepting this SNF containing U.S.-origin highly enriched uranium<sup>1</sup> (HEU) at DOE's Savannah River Site (SRS) for processing and disposition.

Based on the analysis in the Spent Nuclear Fuel from Germany EA, DOE has determined that the proposed action is not a

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major Federal action significantly affecting the quality of the environment within the context of the National Environmental Policy Act (NEPA), and thus does not require the preparation of an environmental impact statement. This Finding of No Significant Impact (FONSI) does not constitute a decision to select any alternative, and it is not a decision to proceed with the project.

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*1 Highly enriched uranium has a concentration of 20 percent or greater of the isotope uranium-235. Low-enriched uranium has a uranium-235 concentration of less than 20 percent. Natural uranium contains approximately 0.7 percent uranium-235.*

## **Contact Information and Document Availability:**

This FONSI and the Spent Nuclear Fuel from Germany EA are available on the DOE NEPA website at <http://energy.gov/node/918941> and also at the SRS website at: <http://www.srs.gov/general/pubs/envbul/nepa1.htm>.

## **For further information contact:**

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## **Notice of Public Availability**

### **Third Phase: Fifth Five-Year Remedy Review Report for Savannah River Site Operable Units with Engineered Cover Systems**

The Fifth Five-Year Remedy Review Report is being conducted in five phases for operable units (OUs) with similar remedies. The OUs are grouped by the following remedy types: (1) native soil cover and/or land use controls, (2) groundwater, (3) engineered cover system, (4) geosynthetic or stabilization/solidification cover system, and (5) operating equipment. The public is notified when each phase of the remedy review is conducted and when the phase is complete. The review for the third phase for OUs with engineered cover system remedies is complete and is being made available to the public.

The Comprehensive Environmental Response, Compensation, and Liability Act requires that remedial actions that result in hazardous substances, pollutants, or contaminants remaining at an OU at levels unsuitable for unrestricted land use be subject to a five-year remedy review. The Fifth Five-Year Remedy Review Report for Savannah River Site Operable Units with Engineered Cover Systems evaluated the engineered cover systems remedial actions selected through issued Records of Decision (RODs), Interim RODs, ROD Amendments, or Explanations of Significant Differences to determine whether the selected remedies remain protective of human health and the environment. The Fifth Five-Year Remedy Review Report for Savannah River Site Operable Units with Engineered Cover Systems is complete and is being issued by the U. S. Department of Energy (DOE), the lead agency for the Savannah River Site (SRS), with concurrence by the U. S. Environmental Protection Agency – Region 4 (EPA), and South Carolina Department of Health and Environmental Control (SCDHEC).

The five-year remedy review addressed three major questions:

- Are the remedies functioning as intended by the decision document?
  - Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives (RAOs) used at the time of remedy selection still valid?
  - Has any other information emerged that could call into question the protectiveness of the remedy?
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The report reviews ten (10) remedy decisions for SRS OUs that selected engineered cover systems as part of the final remedy. Engineered cover systems are like native soil covers, but have a lower permeability if well compacted and promote more effective surface drainage to minimize infiltration. SRS OUs were also included in the remedy review of engineered cover systems if the selected cover features included the use of common fill or clayey material from offsite sources and had some form of engineering controls (i.e., soil material requirements, soil compaction requirements, and/or stormwater management systems).

The Fifth Five-Year Remedy Review Report for SRS Operable Units with Engineered Cover Systems includes a review of the following operable units:

- Central Shops Burning/Rubble Pits (631-1G and 631-3G)
- D-Area Burning/Rubble Pits (431-D and 431-1D)
- F-Area Hazardous Waste Management Facility (904-41G, 904-42G, and 904-43G)
- Ford Building Seepage Basin (904-91G)
- H-Area Hazardous Waste Management Facility (904-44G, 904-45G, 904-46G, and 904-56G)
- K-Area Burning/Rubble Pit (131-K) and K-Area Rubble Pile (631-20G)
- M-Area Hazardous Waste Management Facility (904-51G and 904-112G)
- Metallurgical Laboratory Hazardous Waste Management Facility (904-110G)
- Mixed Waste Management Facility (643-28E)
- SRL Seepage Basins (905-53G1, 904-53G2, 904-54G, and 904-55G)

The exposure assumptions, toxicity data, cleanup levels, and RAOs used at the time of remedy selection are still valid for all the remedial actions evaluated. All ten (10) remedies were determined to be protective of human health and the environment.

In the Fifth Five-Year Remedy Review Report for Savannah River Site Operable Units with Engineered Cover Systems, the DOE, EPA, and SCDHEC determined that continued monitoring for 1,4-dioxane at the K-Area Burning Rubble Pit and K-Area Rubble Pile OU is no longer needed. SRS previously recommended monitoring of 1,4-dioxane at this OU due to the presence of chlorinated solvents. Groundwater wells were sampled in 2013 and all results for 1,4-dioxane were non-detect.

To aid in the review of the report, a Savannah River Site Fact Sheet for the Fifth Five-Year Remedy Review Report for SRS Operable Units with Engineered Cover Systems was also developed.

Copies of the Fifth Five-Year Remedy Review Report for Savannah River Site Operable Units with Engineered Cover Systems and the Fact Sheet are available in the Administrative Record. The Administrative Record is available in the information repositories listed below:

- DOE Public Reading Room at the Gregg-Graniteville Library at the University of South Carolina (USC)-Aiken campus in Aiken, SC; and
- Thomas Cooper Library Government Documents Department at USC in Columbia, SC

Hard copies of the Fifth Five-Year Remedy Review Report for Savannah River Site Operable Units with Engineered Cover Systems and the Fact Sheet are available at the following locations:

- Reese Library Government Information Section at Augusta University in Augusta, GA; and
- Asa H. Gordon Library at Savannah State University in Savannah, GA

An electronic copy of the Fifth Five-Year Remedy Review Report for Savannah River Site Operable Units with Engineered Cover Systems can be found at the following website: <http://www.srs.gov/general/programs/soil/rod/rod.html>

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An electronic copy of the Fact Sheet can be found at the following website: <http://www.srs.gov/general/programs/soil/pub/pubinv.html>

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## ***DOE Requests Temporary Authorization to Modify the Corrective Action System at the M-Area Hazardous Waste Management Facility: M-1 Air Stripper System at the Savannah River Site***

The U. S. Department of Energy at the Savannah River Site (SRS) has requested from the South Carolina Department of Health and Environmental Control (SCDHEC) a temporary authorization to modify the M-1 Air Stripper system by adding an additional recovery well, RWM019, and removing two recovery wells, RWM 9 and RWM 11, and converting them to monitoring wells.

The M-1 Air Stripper system consists of eleven groundwater recovery wells that removes and treats groundwater contaminated with volatile organic compounds (VOCs) (i.e., trichloroethylene and tetrachloroethylene) from the Lost Lake Aquifer Zone (LLAZ). Another system near the M-Area Settling Basin (MASB), a former disposal area, applied steam heat and soil vapor extraction to the vadose zone, M-Area Aquifer, and green clay (over 3 acres) to target a residual VOC source. To date, this system recovered over 450,000 pounds of contaminants. Follow-up characterization at the MASB indicated that contamination was still present outside the heating target zone and in the LLAZ (below treatment depth).

SRS is proposing this temporary authorization, consistent with SCDHEC regulations, which will focus on the area immediately to the east and south of the MASB in the LLAZ, which has high concentrations of dissolved VOCs in groundwater. This TA will consist of the installation of an additional recovery well, RWM019, which will transfer contaminated groundwater to be treated at the M-1 Air Stripper system.

Along with the addition of RWM019 to the M-1 Air Stripper, the SRS requests that recovery wells RWM 9 and RWM 11 be removed from the recovery well system. These two wells have significantly lower VOC concentrations and mass removal compared to the other recovery wells in the M-1 Air Stripper system. Other recovery wells will continue to operate that will capture some of the residual VOCs currently going to RWM 9 and RWM 11. Due to the M-1 Air Stripper flow rate requirements, at least one of these wells will need to be removed from the recovery well system when RWM019 becomes operational. Based on their low concentrations and mass removal, the SRS proposes to remove RWM 9 and RWM 11 from the recovery well system and use them as monitoring wells with semi-annual sampling.

### **For additional information, contact:**

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South Carolina Department of Health and Environmental Control  
Bureau of Land and Waste Management, Division of Waste Management,  
2600 Bull Street, Columbia, SC 29201

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### **For additional information, contact:**

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