



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001**

July 12, 2018

**MEMORANDUM TO:** Andrea Kock, Acting Deputy Director  
Division of Decommissioning, Uranium Recovery,  
and Waste Programs  
Office of Nuclear Material Safety  
and Safeguards

**THRU:** Richard Chang, Acting Chief */RA/*  
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**FROM:** Robert Lee Gladney, Project Manager  
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Office of Nuclear Material Safety  
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**SUBJECT:** GUIDANCE FOR THE AUGUST 13-14, 2018, MONITORING ONSITE  
OBSERVATION VISIT TO THE SAVANNAH RIVER SITE F AND H  
AREA TANK FARMS (DOCKET NO. PROJ0734)

The U.S. Nuclear Regulatory Commission (NRC) staff is planning an onsite observation visit on August 13-14, 2018, to the U.S. Department of Energy, Savannah River Site F and H Area Tank Farms to monitor activities related to the disposal of non-high-level waste, per the NRC responsibilities under the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005.

The enclosed guidance describes the areas of focus for the onsite observation visit. The detailed agenda and summary will be included in the onsite observation visit report.

**Enclosure:** Guidance for Onsite Observation Visit  
**cc:** (w/ Enclosure)  
WIR Service List  
WIR ListServ

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DATED JULY 12, 2018

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**ADAMS Accession No: ML18192A328 \* via email**

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<b>DATE</b>	06/25/2018	07/11/2018	07/12/2018	07/12/2018	07/12/2018

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## **GUIDANCE FOR THE AUGUST 13-14, 2018, MONITORING ONSITE OBSERVATION VISIT TO THE SAVANNAH RIVER SITE F AND H AREA TANK FARMS**

### **PURPOSE:**

The purpose of this document is to provide guidance for a planned monitoring onsite observation visit (OOV) on August 13-14, 2018, to the U.S. Department of Energy (DOE) Savannah River Site (SRS) F and H Area Tank Farms (TFs) to monitor activities related to the disposal of non-high-level waste, per the U.S. Nuclear Regulatory Commission (NRC) responsibilities under Section 3116(b) of the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005 (NDAA).

### **OBJECTIVES:**

1. Observation and technical review of activities and documentation; and
2. Continued discussion on technical issues from previous OOVs, technical review reports (TRRs), or teleconference calls.

### **BACKGROUND:**

NDAA Section 3116(a) authorizes the DOE, in consultation with the NRC, to determine whether certain radioactive waste related to the reprocessing of spent nuclear fuel is not high-level waste provided certain criteria are met. NDAA Section 3116(b) requires the NRC to monitor the DOE disposal actions to assess compliance with Title 10, *Code of Federal Regulations* (10 CFR), Part 61, Subpart C performance objectives for low-level waste.

Per NDAA Section 3116(a), by letter dated September 30, 2010, the DOE submitted the "Draft Basis for 3116 Determination for Closure of F Tank Farm (FTF) at the Savannah River Site," DOE/SRS-WD-2010-001 (draft FTF WD, Agencywide Documents Access and Management System (ADAMS) Accession No. ML102790078) to the NRC for review. The purpose of the DOE draft WD was to demonstrate compliance with the criteria in NDAA Section 3116(a), including compliance with the performance objectives (POs) in 10 CFR Part 61, Subpart C. Per the NRC NDAA consultation role, the NRC staff reviewed the DOE draft FTF WD and supporting performance assessment (PA). In October 2011, the NRC staff documented the results of its review in a Technical Evaluation Report (TER) (ADAMS Accession No. ML112371751), where the NRC staff listed a number of recommendations for the DOE to provide information the NRC staff needs to assess compliance with the performance objectives. The DOE considered the NRC staff TER observations and recommendations in finalizing its FTF waste determination (WD-2012-001) and basis document (DOE/SRS-WD-2012-001, Rev. 0) in March 2012 (ADAMS Accession Nos. ML121140043 and ML121140051, respectively).

On February 6, 2013, the DOE submitted, "Draft Basis for Section 3116 Determination for Closure of H Tank Farm (HTF) at the Savannah River Site," DOE/SRS-WD-2013-001, Rev. 0 (draft HTF WD, ADAMS Accession No. ML13045A504) to the NRC for review. The purpose of the draft waste determination was to demonstrate compliance with the criteria in Section

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3116(a) of the NDAA, including compliance with the performance objectives in 10 CFR Part 61, Subpart C. In its consultation role, the NRC staff reviewed the draft waste determination and supporting PA. In June 2014, the NRC staff documented the results of its review in a TER (ADAMS Accession No. ML14094A496). Similar to the process for FTF, the NRC staff listed a number of recommendations in its HTF TER for the DOE to provide information that the NRC staff needs to assess compliance with the performance objectives. Many of the recommendations listed in the HTF TER were similar to those made in the FTF TER. The DOE considered the NRC staff TER observations and recommendations in finalizing its HTF waste determination (DOE-WD-2014-001) and basis document (DOE/SRS-WD-2014-001, Rev. 0), ADAMS Accession Nos. ML15051A352 and ML15051A353 respectively, in December 2014.

To assist with fulfillment of its monitoring responsibilities under the NDAA, the NRC staff updated its FTF Monitoring Plan (ADAMS Accession No. ML12212A192) to include information on HTF monitoring activities. The combined monitoring plan, "*U.S. Nuclear Regulatory Commission Plan for Monitoring Disposal Actions Taken by the U.S. Department of Energy at the Savannah River Site F-Area and H-Area Tank Farm Facilities in Accordance With the National Defense Authorization Act for Fiscal Year 2005*," October 6, 2015 (ADAMS Accession No. ML15238A761), referred to as the Combined Tank Farm Monitoring Plan. The Combined Tank Farm Monitoring Plan contains the monitoring areas and monitoring factors, which describe how the NRC will monitor the DOE tank farm actions to assess compliance with the Part 61 performance objectives. This SRS TFs OOV guidance was developed in accordance with the NRC 2015 TFs Monitoring Plan (ADAMS Accession Package No. ML15238B403) to ensure consistency in the NRC staff NDAA Section 3116(b) monitoring activities.

### **OBSERVATION REQUIREMENTS:**

This OOV of the disposal actions taken by the DOE at the SRS TFs focuses on the POs set out in 10 CFR Part 61, Subpart C. Those POs are: (i) protection of the general population from releases of radioactivity (§61.41), (ii) protection of individuals against inadvertent intrusion (§61.42), (iii) protection of individuals during operations (§61.43), and (iv) stability of the disposal site after closure (§61.44). The NRC staff will use the following information to direct the activities during this OOV.

#### **Observation and Technical Review of Activities and Documentation:**

The NRC plans to conduct the following activities during this OOV (and next to each activity is the associated monitoring factor(s) (MFs) from the NRC 2015 TFs Monitoring Plan (ADAMS Accession No. ML15238B403):

1. Discuss recent DOE tank closure and related activities, including deployment of the in tank Cesium (Cs) removal system. (related to many MFs)
2. If practical, DOE to provide a tour of the tank farms to observe progress made on tank farm closure, and/or provide a tour of General Separation Area (GSA) streams. (related to many MFs)
3. Discuss recent DOE research activities and/or take tour of SRNL. (related to many MFs)

4. Discuss DOE GSA PORFLOW model update/related activities. (MF 6.3 “Tank Farm PA Revisions”)

5. Discuss recently NRC issued Technical Review Reports (TRRs) issued since the February 2016 OOV.

- Tank 12 and 16 Grouting TRR, ADAMS Accession No. ML16231A444 (MFs 3.2, 3.3, and 3.4)
- Tank 12 Inventory and Special Analysis TRR, ADAMS Accession No. ML17277B235 (MFs 1.1, 1.2, 1.3)
- FTF and HTF Environmental Monitoring TRR, ADAMS Accession No. ML18051B154 (MF 4.3)
- Draft Tank 18 Real Waste Release Testing and Associated PA Documentation<sup>1</sup> (MF 2.1)

6. NRC to discuss recent CNWRA research activities

Follow-Up Action Items from previous OOVs, TRRs, or teleconference calls:

All Follow-Up Action Items were completed.

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<sup>1</sup> If the TRR has not been issued, we can take the opportunity to discuss the draft evaluation and associated research.