



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

March 27, 2019

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Brian Hennessey, 730-B
SRS Remedial Project Manager
Area Completion Projects
Savannah River Operations Office
P.O. Box A
Aiken, South Carolina 29802



Dear Mr. Hennessey:

The U.S. Environmental Protection Agency (EPA) has received and is reviewing the Sampling and Analysis Plan for the M-Area Inactive Process Sewer Lines (MIPSL) Operable Unit (OU), Revision 0.

EPA can not provide approval for the above mentioned document until the comments below are addressed. If you have any questions, please contact me at (404) 229 -9500.

Sincerely,

A handwritten signature in black ink, appearing to read "Diedre Lloyd".

Diedre Lloyd
Remedial Project Manager
Restoration and Sustainability Branch
Region 4, Superfund Division
61 Forsyth Street, S.W.
Atlanta, Georgia 30303

cc: Angelia Holmes, DOE-SRS, C. L. Bergren, SRNS-ACP (Signed Original), Karen Adams, DOE-SRS, Susan Fulmer, SCDHEC

EPA COMMENTS on the
SAMPLING AND ANALYSIS PLAN for the
M-AREA INACTIVE PROCESS SEWER LINES OPERABLE UNIT

REVISION 0
SEMS NUMBER: 19

SAVANNAH RIVER SITE
AIKEN, SOUTH CAROLINA

EPA COMMENTS:

- 1) According to the Savannah River Site (SRS) Area Completion Projects (ACP) Programmatic Quality Assurance Project Plan for Environmental Data Collection and Management, ERD-AG-2005-00001 (Program Level QAPP), the development of individual waste unit Sampling and Analysis Plans (SAPs) and appropriate Data Usability Reports (DURs) should be used in conjunction with the Program Level QAPP to provide quality assurance for waste unit specific data collected objectives. The Sampling and Analysis Plan for the M-Area Inactive Process Sewer Lines (MIPSL) (081-M) Operable Unit (U) (SAP) does not include all of the information that is required to be included by the Program Level QAPP. As such, the SAP requires augmentation to include the following items, organized according to the Worksheets provided in the Uniform Federal Policy for Quality Assurance Program Plans (UFP-QAPP):
 - **Worksheet #1 – Lead Organization:** The Lead Organization is not identified in the SAP.
 - **Worksheet #4 - Project Personnel Sign-Off Sheet: Identifies key project personnel and specifies technical disciplines:** The key project personnel and their technical disciplines are not identified.
 - **Worksheet #10 - Clearly states the particular environmental problem to be solved, decision to be made, or outcome to be achieved. Includes sufficient background information to provide a historical, scientific, and regulatory perspective for this particular project:** The information regarding the extent of contamination at the MIPSL is not sufficient to describe the problem at the MIPSL OU.
 - **Worksheet #11 - Provides the Data Quality Objectives in accordance and compliance with EPA's Data Quality Objective Process (EPAQA/G-4) document, must provide a list of decisions and alternative actions (remediation, removal, further assessments, no further action:** The SAP has not provided sufficient descriptions needed to identify the goal of the study, and has not provided a list of decisions and alternative actions.
 - **Worksheet #12 - Identifies the data quality indicators, measurement performance criteria, and quality control (QC) sample and/or activity used to assess the measurement performance for both the sampling and analytical measurement systems.** The SAP does not include measurement performance criteria for analytical measurements.
 - **Worksheet #16 – 1) Provides work schedule for all tasks including report preparation, response to comments, etc.; 2) Identifies all required reports, records, data reports, quality assurance (QA) reports/documents:** The SAP does not include a schedule of tasks for the sampling and analysis at the MIPSL OU and does not identify all required reports, records, data reports, and QA reports/documents, including data quality assessments.

- **Worksheet # 17 - Provides an extensive discussion regarding the rationale for the sampling design:** The SAP does not include an extensive discussion regarding the rationale for the sampling design.
- **Worksheet #21 – Includes sampling equipment; on-site support facilities; lists key personnel in charge of sampling; describes decontamination procedures:** The SAP does not include this information.
- **Worksheet #22 – Includes a list of field equipment; testing and acceptance criteria; supplies, and personnel responsible for supplying and testing such equipment:** The SAP does not provide this information.
- **Worksheet #28 - Identifies the type, number and frequency of procedures and frequency of QA/QC sample collection along with the required QC statistically derived limits for each analyte (for spike samples, internal standards, surrogate spikes):** The SAP does not provide the statistically-derived limits for all analytical QC spikes and standards.
- **Worksheet #29 – Describes data handling procedures:** The SAP does not provide this information.
- **Worksheet #34 - Identifies the guidance documents or SOPs governing the data review, verification and validation processes:** The SAP has not provided information about the guidance documents or standard operating procedures (SOPs) that will be used for data verification and validation.

Please revise the SAP to address these items to ensure the SAP adequately documents the data collection plan and all required quality control measures in accordance with the Program Level QAPP.

- 2) SAP Section 3.1.1 (State the Problem) does not provide a sufficient description of the site conditions or the extent of contamination being addressed under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) remedial response action. Section 3.1.1 states that a soil vapor extraction treatment of soils at the M-Area Inactive Process Sewer Lines (MIPSL) has reduced the concentration of Trichloroethylene (TCE) and Tetrachloroethylene (PCE), but does not include information about the location and extent of the lateral and vertical soil contamination originally identified below the ground surface at this Operable Unit (OU). Therefore, it is unclear how the proposed sampling scheme is sufficient to bound the extent of TCE and PCE contamination, especially laterally. In accordance with EPA document *Guidance on Systematic Planning Using the Data Quality Objectives Process* (EPA/240/B-06/001) dated February 2006 which states that Step 1 of the seven step data quality objective (DQO) process is to define the problem that necessitated the remedial action, such information is necessary to ensure the objectives of the project are sufficiently addressed. Please revise Section 3.1.1 to provide a more complete description of the extent of contamination within the MIPSL OU, and the problems originally identified as warranting action.
- 3) Section 3.1.2 (Identify Goals of the Study) defines the goal of the proposed sampling as identifying whether soils below the existing MIPSL pipeline infrastructure have met the Remedial Goals (RGs), however the sampling design does not appear to support such a goal. For example, the SAP Table 2 (Data Quality Objectives Worksheet for Soil Media) states the conditions at this area included the discharge of contamination from the MIPSL to subsurface soils. Section 3.1.3 (Identify Information Inputs) states three soil borings near MH-1, one soil boring near MH-11, two soil borings near MH-12, and one soil boring near MH-13 will be advanced to a depth of 100 feet for collection of soil samples every five feet. However, the SAP

does not state how it was determined such a small number of borings will provide sufficient data to bound the lateral extent of TCE and PCE concentrations in soils at the MIPS L OU. Information which documents how the number and location of samples proposed is sufficient to characterize the soils which are subject to compliance with the MIPS L Record of Decision (ROD) remedial goals (RGs) needs to be provided. Please revise the SAP to provide additional information about how the proposed sampling scheme is sufficient to meet the data needs for identifying if MIPS L soils meet the ROD RGs.

- 4) The scale of the SAP figures appears to apply to the distance between manholes and is not representative of the size of the sample locations. For example, in Figure 3 (Proposed Sample Locations for the MIPS L OU, 2018), Page 15 of 22, the circles used to represent the sample locations are sized such that, according to the scale of the figure, would represent 75 feet in diameter. As such, the figure appears to depict sampling locations covering more land area which is not accurate or realistic. Please revise Figure 3 to provide more accurate scaling of sample locations in comparison to the size of the OU.