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CP2-ER-1000/FR1

Data Management Implementation Plan for the Paducah Plumes Operations Paducah Gaseous Diffusion Plant, Paducah, Kentucky

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Data Management Implementation Plan for the Paducah Plumes Operations Paducah Gaseous Diffusion Plant, Paducah, Kentucky

Date Issued—May 2025

U.S. DEPARTMENT OF ENERGY
Office of Environmental Management

Prepared by
FOUR RIVERS NUCLEAR PARTNERSHIP, LLC,
managing the
Deactivation and Remediation Project at the
Paducah Gaseous Diffusion Plant
under Contract DE-EM0004895

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APPROVALS

Data Management Implementation Plan
for the Paducah Plumes Operations
Paducah Gaseous Diffusion Plant
Paducah, Kentucky

CP2-ER-1000/FR1

May 2025

Approved by:

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FR0	Initial Issue	All	10/12/2021	Signature on file
FR1	Full revision based on periodic review.	All	5/19/2025	Signature on file

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CONTENTS

ACRONYMS

COC	chain-of-custody
CY	calendar year
DMIP	Data Management Implementation Plan
DOE	U.S. Department of Energy
EDD	electronic data deliverable
EW	extraction well
FRNP	Four Rivers Nuclear Partnership, LLC
FY	fiscal year
GIS	Geographic Information System
ID	identification
NEPCS	Northeast Plume Containment System
NWPGS	Northwest Plume Groundwater System
O&M	operations and maintenance
OREIS	Oak Ridge Environmental Information System
PC	personal computer
PEGASIS	PPPO Environmental Geographic Analytical Spatial Information System
PEMS	Project Environmental Measurements System
PGDP	Paducah Gaseous Diffusion Plant
PPPO	Portsmouth/Paducah Project Office
QA	quality assurance
QC	quality control
RM	records management
RTL	ready-to-load
SMO	Sample Management Office
SOW	statement of work

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EXECUTIVE SUMMARY

This Data Management Implementation Plan (DMIP) identifies and documents data management requirements and applicable procedures, expected data types and information flow, and roles and responsibilities for data management activities associated with Plumes Operations at the Paducah Gaseous Diffusion Plant. This document supports the Northeast Plume Containment System (NEPCS) and the Northwest Plume Groundwater System (NWPGS) operation and maintenance plans (DOE 2020, DOE 2021). The DMIP will operate under the Four Rivers Nuclear Partnership, LLC, (FRNP) Quality Assurance Program Description, with FRNP's quality organization providing oversight for quality activities associated with the Plumes Operations DMIP. The DMIP and the NEPCS and NWPGS operation and maintenance plans address aspects of the data quality objectives of Plumes Operations.

Data management for this project is implemented throughout the life cycle for environmental measurements data. This life cycle occurs from the planning of data for environmental characterization, through the collection, review, and actual use of the data for decision-making purposes, to the long-term storage of data.

Data types to be managed for the project include field data and analytical data. Historical data is downloaded from the Paducah Oak Ridge Environmental Information System (OREIS), if available. All historical data available in electronic format are stored in Paducah OREIS. Field data are recorded on sample data forms and are entered into the Paducah Project Environmental Measurements System (PEMS), as appropriate, for storage. Analytical data are planned and managed through Paducah PEMS and transferred to Paducah OREIS for long-term storage and reporting.

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1. INTRODUCTION

The purpose of this Data Management Implementation Plan (DMIP) is to identify and document data management requirements and applicable procedures, expected data types and information flow, and roles and responsibilities for all data management activities associated with Plumes Operations at the Paducah Gaseous Diffusion Plant (PGDP). This document supports the Northwest Plume Groundwater System (NWPGS) and Northeast Plume Containment System (NEPCS) operations and maintenance (O&M) plans (DOE 2020, DOE 2021). Data management provides a system for efficiently generating and maintaining technically and legally defensible data that provide the basis for making sound decisions regarding the environmental characterization at PGDP.

To meet current regulatory requirements for the U.S. Department of Energy's (DOE's) Plumes Operations, complete documentation of the information flow is established. Each phase of the data management process (planning, collecting, analyzing, managing, verifying, assessing, validating, reporting, consolidating, and archiving) must be planned and documented appropriately. The Plumes Operations manager is responsible for confirming that data collection has been completed and for performing data management for this project.

The scope of this DMIP is limited to environmental information generated under Plumes Operations. This information includes electronic and/or hard copy records obtained by the project that describe environmental conditions. Information generated by the project (e.g., laboratory analytical results from samples collected) and obtained from sources outside the project (e.g., historical data) falls within the scope of this DMIP. Certain types of information, such as personnel, radiological surveys, or financial records, are outside the scope of this DMIP.

The DMIP will operate under the Four Rivers Nuclear Partnership, LLC, (FRNP) Quality Assurance Program Description, with the FRNP quality organization providing oversight for quality activities associated with the Plumes Operations DMIP. The DMIP and the Plumes Operations O&M plans address aspects of the data quality objectives of Plumes Operations.

1.1 PROJECT MISSION

Requirements and responsibilities described in this plan apply to activities conducted by FRNP in support of Plumes Operations. Specific activities involving data include sampling of groundwater and subsequent storing, analyzing, and shipping samples, and evaluation, verification, validation, assessment, and reporting of analytical results.

1.2 DATA MANAGEMENT ACTIVITIES

Data management is implemented throughout the life cycle of Plumes Operations. This life cycle occurs from the planning of data for environmental characterization and operations efficiency, through the collection, review, and actual use of the data for decision-making purposes, to the long-term storage of data. Data management activities include the following:

- Acquire existing data
- Plan data collection
- Prepare for sampling activities
- Collect field data
- Collect field samples

- Submit samples for analysis
- Process laboratory analytical data
- Verify data
- Validate data
- Assess data
- Consolidate, analyze, and use data and records
- Submit data to Paducah Oak Ridge Environmental Information System (OREIS)

Section 6 contains a detailed discussion of the activities listed above.

1.3 DATA MANAGEMENT INTERACTIONS

The Sample Management Office (SMO) oversees the use of the Paducah Project Environmental Measurements System (PEMS) and ensures that data deliverables meet DOE's standards. SMO personnel enter information into Paducah PEMS related to the fixed-base laboratory data once the samples have been delivered and receipt of samples has been verified. The fixed-base laboratory electronic data deliverables (EDDs) are loaded into Paducah PEMS. The SMO is responsible for data verification, validation if applicable, and for transferring the data from the ready-to-load (RTL) files to the Paducah OREIS database. The Plumes Operations manager or designee is responsible for data assessment.

The SMO develops the statement of work (SOW) to be performed by an analytical laboratory in the form of a project-specific laboratory SOW. Analytical methods, reporting limits, and deliverable requirements are specified in this SOW. For routine work, a laboratory SOW is developed annually, prior to the beginning of the fiscal year (FY). Laboratory SOWs for nonroutine or special sampling events will be developed as needed throughout the FY.

The SMO receives EDDs, performs contractual screenings, and distributes laboratory data packages and data assessment packages. The SMO ensures that laboratory data package and electronic-deliverable formats are properly specified and interfaces with the contract laboratory to ensure that the requirements are understood and met.

2. DATA NEEDS AND SOURCES

Multiple data types are generated and/or assessed during this project. These data types include field data, analytical data (including environmental data), and Geographic Information System (GIS) data.

2.1 HISTORICAL DATA

Historical data consist of analytical data and lithologic descriptive data from extraction wells (EWs) and monitoring wells previously installed in support of Plumes Operations. Historical data that are available electronically are downloaded from Paducah OREIS, as needed.

2.2 FIELD DATA

Field data for the project includes sample collection information, field measurement analyses, and monitoring well water levels.

2.3 ANALYTICAL DATA

Analytical data for the project is collected for environmental characterization and operational efficiency. Analysis is conducted on samples that are collected and shipped to fixed-base laboratories.

Operational samples are also drawn into a localized, automated online gas chromatograph in accordance with the Northwest Plume O&M Plan.

2.4 GEOGRAPHIC INFORMATION SYSTEM COVERAGE

The Paducah GIS network is used for preparing maps used in data analysis and reporting of both historical and newly generated data. Coverage for use during the project is as follows:

- Stations (station coordinates are downloaded from Paducah OREIS)
- Facilities
- Plumes
- Plant buildings
- Plant roads
- Plant fences
- Streams

3. DATA FORMS

Chain-of-custody (COC) forms, data packages with associated quality assurance (QA)/quality control (QC) information, field forms, and sample data forms are maintained according to the requirements defined in CP3-RD-0010, *Records Management Process.*

Field documentation is scanned electronically to an area on the network. Plumes Operations records are submitted electronically to FRNP records management (RM). The electronic file is considered the record. Copies are flagged accordingly.

3.1 FIELD FORMS

Sample information is environmental data describing the sampling event and consists of station (or location), date collected, time collected, sampler comments, and other sampling conditions. This information is recorded on COC forms, sample labels, and/or sample data forms and is entered directly into Paducah PEMS by the SMO. The Plumes O&M plans provide information on sampling locations and analytical parameters required at each location, and the frequency of collection for Plumes Operations samples.

Sample COC forms contain sample-specific information recorded during collection of the sample. Any deviations from the Plumes O&M plans are noted on the sample COC form or sample data form. The sampling group reviews each sample COC and data form for accuracy and completeness as soon as practical following sample collection.

Sample COC forms are generated from Paducah PEMS and contain the information presented in Table 1.

Table 1. COC Information

Information that is preprinted	Information that is entered manually
Laboratory COC number	Sample date and time
Project name or number	Sample comments (optional)
Sample identification (ID) number (reflects sample type)	
Sampling location	
Sample matrix (e.g., WG = groundwater)	
Analysis (e.g., trichloroethene)	
Sample container (volume, type, preservation)	

Sample ID numbers are identified in Paducah PEMS and are assigned by the SMO according to the project, sample type, location of the sample, and timing of the sample. An example of the sample numbering schemes used for Plumes Operations is provided below for each project.

NEPCS Sampling ID Numbers. Used for all groundwater and QC samples, such as field duplicates, field blanks, and trip blanks in the following format.

LF#-MMYY, where:

L is the location number to be sampled (SP234, SP235, 765SP3, 765ASP3, etc.);

F denotes the sampling event frequency (M for monthly or W for weekly, etc.);

# denotes the event number (for monthly samples, 1–12 would indicate the month of the FY; for weekly samples, 1–5 would indicate the week of the month in which the sample was collected);

MM is the month of the year in which the sample was collected; and

YY is the calendar year (CY) in which the sample was collected.

For example, sample ID number 765ASP3W1-1024 was collected at a specific location, 765ASP3, during the first week in October 2024. A field duplicate sample is identified by the addition of a "D" after the location in the numbering scheme. Sample 765ASP3DW1-1024 is the field duplicate sample of 765ASP3W1-1024. Adding "FB" (for field blank) to the front of the numbering scheme identifies the field blank. For example, FB765ASP3W1-1024 is the field blank that corresponds with sample 765ASP3W1-1024. Adding "TB" to the front of the numbering scheme, dropping the location, and then adding "NEP" (for NEPCS project) identifies the trip blank. For example, TB1NEPW1-1024 is the first trip blank that was planned at the Northeast Plume during the first weekly sampling event in October 2024.

NWPGS Sampling ID Numbers. Used for all groundwater and QC samples, such as field duplicates, field blanks, and trip blanks in the following format.

LF#-MMYY, where:

L is the location number to be sampled (HV171, HV082, HV217, HV222, AHV14, NWPSP5, etc.);

F denotes the sampling event frequency (M for monthly, Q for quarterly, SA for semiannual, or W for weekly, etc.);

# denotes the event number (for monthly samples, 1–12 would indicate the month of the FY; for quarterly samples, 1–4 would indicate the quarter of the FY; for semiannual samples, 1 or 2 for the semiannual period in which the sample was collected);

MM is the month of the year in which the sample was collected; and

YY is the CY in which the sample was collected.

For example, sample ID number HV082SA1-1024 was collected at a specific location, HV082, during the first semiannual event in October 2024. A field duplicate sample is identified by the addition of a "D" after the location in the numbering scheme. Sample HV082DSA1-1024 is the field duplicate sample of HV082SA1-1024. Adding "FB" to the front of the numbering scheme identifies the field blank. For example, FBHV082SA1-1024 is the field blank that corresponds with sample HV082SA1-1024. Adding "TB" to the front of the numbering scheme, dropping the location, and then adding "NWP" (for NWPGS project) identifies the trip blank. For example, TB1NWPSA1-1024 is the first trip blank that was planned at the Northwest Plume during the first semiannual sampling event in October 2024.

For the HV082 monthly sample, a grab sample and a temporal composite sample are planned. To indicate the grab sample, a "GR" is added after the event number. To indicate the temporal composite sample, a "CP" is added after the event number (i.e., HV082M1GR-1024 or HV082M1CP-1024).

3.2 LITHOLOGIC DESCRIPTION FORMS

Lithologic description forms are not necessary for use during routine activities under Plumes Operations.

3.3 WELL CONSTRUCTION DETAIL FORMS

Well logs and construction diagrams contain information recorded by the engineer or geologist during construction of the EWs. These forms are not necessary for use during routine activities under Plumes Operations.

3.4 SAMPLE DATA FORMS

Sample data forms are utilized for recording sampling information during groundwater sampling, as well as special sampling events. Sample data forms are maintained according to CP3-ES-2700, *Sample and Miscellaneous Data Forms*.

4. DATA AND DATA RECORDS TRANSMITTALS

4.1 PADUCAH OAK RIDGE ENVIRONMENTAL INFORMATION SYSTEM DATA TRANSMITTALS

Data is loaded to Paducah OREIS prior to reporting. Official data reporting will be generated from data stored in Paducah OREIS. SMO personnel will coordinate and load all data to Paducah OREIS.

4.2 DATA RECORDS TRANSMITTALS

SMO and Plumes Operations personnel will make record transfers to FRNP RM according to CP3-RD-0010, *Records Management Process*. SMO personnel will submit the following project data as records on behalf of Environmental Monitoring.

- Laboratory SOWs;
- Data assessment packages, which include COCs and completed sample data forms; and
- Laboratory data packages.

5. DATA MANAGEMENT SYSTEMS

5.1 PADUCAH PROJECT ENVIRONMENTAL MEASUREMENTS SYSTEM

Paducah PEMS is the data management system that supports the project's sampling and measurement collection activities, provides cradle-to-grave tracking of sampling and analysis activities, and generates Paducah OREIS RTL files. Appropriate project staff access Paducah PEMS throughout the life cycle of the project. The SMO uses Paducah PEMS to support the following functions:

- Initiate the project
- Generate laboratory SOW
- Plan for sampling
- Record sample collection and field measurements
- Record the dates of sample shipments to the laboratory (if applicable)
- Receive and process analytical results
- Verify data
- Access and analyze data
- Transfer project data (in RTL format) to Paducah OREIS

Paducah PEMS is used to generate sample COC forms, sample data forms, track collection and receipt of samples by the laboratory, import laboratory-generated data, update field and laboratory data based on data verification, data validation if applicable, data assessment and transfer data to Paducah OREIS. Requirements for addressing the day-to-day operations of Paducah PEMS include backups and security.

The information technology group performs system backups regularly. The security precautions and procedures implemented by the SMO are designed to minimize the vulnerability of the data to unauthorized access or corruption. Only users approved by the SMO manager have access to Paducah PEMS and the electronic data files. Users have Homeland Security Presidential Directive-12 universal serial bus card readers installed on their personal computer (PC) to control access to the PC and the network.

5.2 PADUCAH OAK RIDGE ENVIRONMENTAL INFORMATION SYSTEM

Paducah OREIS is the centralized, standardized, quality assured, and configuration-controlled data management system that is the long-term repository of for Paducah environmental management projects. Paducah OREIS is comprised of hardware, commercial environmental data (measurements and geographic) software, customized integration software, an environmental measurements database, a geographic

database, and associated documentation. Plumes Operations uses Paducah OREIS for the following functions:

- Access to existing data
- Spatial analysis
- Report generation
- Long-term storage of project data (as applicable)

5.3 U.S. DEPARTMENT OF ENERGY—PORTSMOUTH/PADUCAH PROJECT OFFICE ENVIRONMENTAL GEOGRAPHIC ANALYTICAL SPATIAL INFORMATION SYSTEM

The PPPO Environmental Geographic Analytical Spatial Information System (PEGASIS) provides a systematic approach to retrieve, display, and download analytical, geotechnical, and hydrological data, maps, and geophysical information for Portsmouth/Paducah Project Office sites using a web browser. The information includes analytical sample results from various environmental studies, restoration reports and supporting documents, maps, and facility drawings managed by DOE and its contractors. PEGASIS is a website that allows project managers, DOE, state and federal regulators, and the public to have access to environmental sampling data for hundreds of investigative wells and sampling events, solid waste management units, and site-specific GIS features from all of the environmental studies at the site. Project data is uploaded from Paducah OREIS to PEGASIS on a quarterly basis.

6. DATA MANAGEMENT TASKS AND ROLES AND RESPONSIBILITIES

6.1 DATA MANAGEMENT TASKS

The following data management tasks, which are associated with fixed-base laboratory data, are numbered, and grouped according to the activities summarized in Section 1.2.

6.1.1 Acquire Existing Data

The primary background data for this project are historical analytical data and field information recorded in Paducah PEMS and Paducah OREIS.

6.1.2 Plan Data Collection

The Plumes Operations O&M plans provide additional information for the tasks of project environmental data collection. Laboratory SOWs are developed annually, prior to the beginning of the FY based on the requirements identified in the Plumes Operations O&M plans. In addition, SOWs are developed for other sampling events, as needed.

6.1.3 Prepare for Sampling Activities

The data management tasks involved in sample preparation, as specified in CP3-ES-5004, *Sample Tracking, Lab Coordination, and Sample Handling*, include identifying all sampling locations and preparing descriptions of these stations, developing sample and analysis summaries to be conducted at each sampling location, developing operational data collection sheets for routine O&M, identifying sample containers and preservation, developing sample data forms, preparing sample kits and COC forms, and coordinating sample delivery to the laboratory. The SMO conducts activities associated with the analytical laboratories.

Coordinates for sample locations are established in Paducah OREIS. Coordinates for nonroutine sampling events are obtained using a Global Positioning System.

The sampling group and SMO personnel perform data management activities associated with field sampling in accordance with CP3-ES-5007, *Data Management Coordination.*

The sampling group and SMO review field forms and sampling information for completeness.

6.1.4 Collect Field Data and Samples

Paducah PEMS is used to identify, track, and monitor each sample and associated data from the point of collection through final data reporting. Project documentation includes sample data forms, COC forms, laboratory data packages, and electronic analytical results.

Data management requirements for sample data forms and field forms specify that (1) sampling documentation must be controlled from initial preparation to completion, (2) sampling documentation generated must be maintained in a project file, and (3) modifications to planned activities and deviations from procedures shall be recorded.

The comprehensive sampling lists in the Plumes Operations O&M plans are used as the basis for finalizing the sample containers to be used for sample collection and ordering a sufficient number of containers and other supplies. Before the start of routine sampling, the SMO specifies the contents of sample kits, which includes sample containers provided by the laboratories, labels, preservatives, and COC forms. Sample labels and COC forms are completed according to CP3-ES-2709, *Chain-of-Custody Forms, Sample Labels, and Custody Seals*.

The sampling group collects samples for the project. The field team records pertinent sampling information on the COC and sample data form. The SMO enters the information from the COC and sample data forms into Paducah PEMS. A QC check of the sample information and field measurement data entry is made and includes comparing printouts of 100% of the data in Paducah PEMS to the original COC and sample data form. The QC check is documented and added to the data assessment package to be maintained with the project files.

6.1.5 Submit Samples for Analysis

Before the start of field sampling, the sampling group coordinates the delivery of samples with the SMO who, in turn, coordinates with the analytical laboratories. The SMO presents a general sampling schedule to the analytical laboratories. The SMO also coordinates the receipt of samples and containers with the laboratories. The SMO ensures that data packages and EDDs from the laboratories contain the appropriate information and are in the correct format.

6.1.6 Process Laboratory Analytical Data

Data packages and EDDs received from the laboratory are tracked, reviewed, and maintained in a secure environment. Paducah PEMS is used for tracking project-generated data. The following information is tracked, as applicable: sample delivery group number, date received, number of samples, sample analyses, receipt of EDD, and comments. The laboratory EDDs are checked as specified in CP3-ES-5007, *Data Management Coordination*.

6.1.7 Laboratory Contractual Screening

Laboratory contractual screening is the process of evaluating a set of data against the requirements specified in the analytical SOW to ensure that all requested information is received. The contractual screening includes, but is not limited to, the analytes requested, methods used, units, holding times, and reporting limits achieved. Contractual screening is performed for 100% of the data. The SMO is responsible for the contractual screening upon receipt of data from the analytical laboratory according to CP3-ES-5003, *Quality Assured Data*.

6.1.8 Data Verification

Data verification is the process for comparing a data set against a set standard or contractual requirement. Verification is performed by SMO personnel electronically, manually, or by a combination of both according to CP3-ES-5003, *Quality Assured Data*. Verification is performed for 100% of the data. Data verification may include contractual screening and criteria specific to Plumes Operations. Data is flagged as necessary. Verification codes are stored in Paducah PEMS and transferred with the data to Paducah OREIS.

6.1.9 Data Validation

Data validation is the process performed by a qualified individual for a data set, independent from sampling, laboratory, project management, or other decision-making personnel for Plumes Operations. Data validation evaluates the laboratory adherence to analytical-method requirements. Data validation is managed and coordinated by the SMO. Analytical data collected during one month of the FY for Northeast Plume and one month of the FY for Northwest Plume undergo data validation in accordance with FRNP data validation plans. Validation codes are input and stored in Paducah PEMS and transferred with the analytical data to Paducah OREIS.

6.1.10 Data Assessment

Data assessment is the process for assuring that the type, quality, and quantity of data are appropriate for their intended use. It allows for the determination that a decision (or estimate) can be made with the desired level of confidence, given the quality of the data set. Data assessment follows data verification and data validation (if applicable) and must be performed at a rate of 100% to ensure data is useable.

The data assessment is conducted by the Plumes Operations manager or their designee in conjunction with project team members according to CP3-ES-5003, *Quality Assured Data*. Once data assessment is complete, a QA review is completed by SMO personnel (personnel performing the QA review must be different than the personnel who performed data assessment). Data assessment codes are stored in Paducah PEMS and transferred with the analytical data to Paducah OREIS. Data is made available for reporting upon completion of the data assessment, and associated documentation (Data Assessment Review Checklist) is filed with the project files. Any problems found during the review process are resolved and documented in the data assessment package.

6.1.11 Data Consolidation and Usage

The data consolidation process consists of the activities necessary to prepare the evaluated data for the users. The SMO personnel prepare files of the assessed data from Paducah PEMS for loading to Paducah OREIS for future use. Data used in reports (e.g., FFA Semiannual Progress Reports and the Five-Year Review) distributed to external agencies is obtained from data in Paducah OREIS and has been through the data review process. All data reported has the approval of the Plumes Operations manager.

6.1.12 Submit Data to Paducah Oak Ridge Environmental Information System

Official data reporting for the Plumes Operations will be generated from data stored in Paducah OREIS. SMO personnel are responsible for transmitting the data to Paducah OREIS once verification, validation, and assessment have been completed.

6.2 DATA MANAGEMENT ROLES AND RESPONSIBILITIES

The following project roles are defined, and the responsibilities are summarized for each data management task described in the previous subsection.

6.2.1 Plumes Operations Manager

The Plumes Operations manager is responsible for the day-to-day operation of facilities including the NWPGS and NEPCS. The Plumes Operations manager ensures the requirements of policies and procedures are met, implements equipment maintenance and calibration requirements, and assesses data in accordance with CP3-ES-5003, *Quality Assured Data*. The Plumes Operations manager may designate a member of the project team to perform data assessment. The Plumes Operations manager ensures compliance to procedures relating to data management with respect to the project and that the requirements of CP3-ES-5003, *Quality Assured Data,* are followed. Additionally, the Plumes Operations manager or designee confirms that Plumes Operations routine sampling requirements are met as defined in the current Plumes Operations O&M plans.

6.2.2 Project Team

The project team consists of the technical staff and support staff (including the SMO and/or characterization personnel) that conducts the various tasks required to successfully operate the NWPGS and NEPCS.

6.2.3 Data Users and Data Reviewers

Data users and data reviewers are members of the project team who require access to project information to perform reviews, analyses, or ad hoc queries of the data. The data user or data reviewer determines project data usability by comparing the data against predefined acceptance criteria and assessing that the data are sufficient for the intended use.

6.2.4 Records Management Manager

The RM manager is responsible for the long-term storage of project records. The SMO and Plumes Operations interfaces with the RM manager and transfers documents and records in accordance with DOE requirements.

6.2.5 Quality

Quality will provide oversight of the data management process, which will include documentation reviews in support of the oversight requirements.

6.2.6 Sample Management Office Manager

The SMO manager oversees the day-to-day operations of the SMO. The SMO manager is responsible for the long-term storage of project data and for transmitting data to external agencies according to the *Paducah Gaseous Diffusion Plant Data Management Plan*, DOE/LX/07-2498&D1. Data are transmitted via

PEGASIS. The SMO manager ensures compliance with procedures relating to data management and ensures that the requirements of CP3-ES-5003, *Quality Assured Data*, are followed.

6.2.7 Sample Management Office

The SMO enters the data into Paducah PEMS, including COC information, field data, data assessment and validation codes, and any pertinent sampling information. The SMO also is responsible for contracting any fixed-base laboratory used during the sampling activities. The SMO also provides coordination for sample shipment to the laboratory, contractual screening of data packages, and transmittal of data packages to RM. The SMO populates Paducah PEMS in order to generate COCs, sample labels, and sample data forms. After receiving the fixed-base laboratory EDD, the SMO loads the EDD to Paducah PEMS, performs electronic verification of the data, and then compiles the data assessment package. The SMO prepares data for transfer from Paducah PEMS to Paducah OREIS and coordinates submittal of electronic records, which include COCs, sample data forms, laboratory data packages, data assessment packages, and data validation reports. These roles can be completed by a scientist or any other personnel appointed by the SMO manager.

6.2.8 Sampling Group

The sampling group is responsible for preparing sample kits, performing sampling according to the Plumes Operations O&M plans, and shipping samples to off-site laboratories. This group records field information on sample data forms and required field information on COC forms. The sampling group coordinates sample delivery to the laboratories with the SMO.

7. REFERENCES

CP2-ES-0006, *Environmental Monitoring Plan Fiscal Year 2025 Paducah Gaseous Diffusion Plant, Paducah, Kentucky*

CP2-QA-1000, *Quality Assurance Program Description for the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*

CP3-ES-5003, *Quality Assured Data*

CP3-RD-0010, *Records Management Process*

CP3-ES-2700, *Sample and Miscellaneous Data Forms*

CP3-ES-2709, *Chain-of-Custody Forms, Sample Labels, and Custody Seals*

CP3-ES-5004, *Sample Tracking, Lab Coordination, and Sample Handling*

CP3-ES-5007, *Data Management Coordination*

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