CP4-ES-5007 FRev. 2A	**TITLE**: Data Management Coordination	Page 1 of 9

DOCUMENT CATEGORY:	☒ Administrative		☐ Technical

LEVEL OF USE:	☒ Information Level	☐ Reference Level	☐ Continuous Use

FUNCTIONAL AREA: Sample Management Office **SUBJECT MATTER AREA:** Sample Management Office	**SUBJECT MATTER EXPERT**: Lisa Crabtree, Sample Management Office Manager
NUCLEAR SAFETY REVIEW DOCUMENTATION: FRNP-20-0171-S	**APPROVED BY/DATE** (Signature on file): Lisa Crabtree, Sample Management Office Manager 10/25/2022
REQUIRED REVIEW DATE (or expiration date for temporary change): 10/25/2025	**EFFECTIVE DATE**: 11/3/2022

REVISION/CHANGE LOG			
Revision/Change Letter	Description of Changes	Pages Affected	Date of Revision/Change
FR0	Bluesheet	ALL	10/20/17
FR1	Non-intent to incorporate bluesheet and into new template.	ALL	12/5/17
FR1A	Non-intent change to add Note to section 6.2 and correct reference in 2.1.	3,4	4/23/19
FR2	Address corrective actions for AI-0003668 associated with CA-002468 for verification of sampling events under the Environmental Monitoring Plan. Created form, CP4-ES-5007-F01, *Review Checklist for EMP Project Verification*.	4,6,8,9	4/21/2020
FR2A	Periodic Review has been completed with no changes identified in procedure technical content. Nonintent change to correct FA, SMA, SME, Approver, and dates has been incorporated per CP3-NS-2001. Date for review cycle has been reset.	All	10/25/2022

TABLE OF CONTENTS

1.0   PURPOSE AND SCOPE

1.1   Purpose

This procedure describes data management coordination activities performed to organize and maintain the integrity of data generated at the Paducah Site.

1.2   Scope

This procedure describes the process of gaining access to the Environmental databases [Paducah Oak Ridge Environmental Information System (OREIS) and Project Environmental Measurements System (PEMS)] as well as coordination activities performed by the various groups responsible for data management activities at the Paducah Site.

2.0   REFERENCES

2.1   Use References

- CP3-ES-5003, *Quality Assured Data*

- CP4-ES-5004, *Sample Tracking, Laboratory Coordination, and Sample Handling*

2.2   Source References

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

3.0   COMMITMENTS

None

4.0   RESPONSIBILITIES

4.1   Requester

Submits request for project sample data from the environmental databases (Paducah OREIS and PEMS).

4.2   Environmental Monitoring Manager/Data Entry Specialist

Manages the long-term electronic storage of data, loading data to Paducah OREIS, and ensures compliance to the Paducah Data Management Policy.

4.3   Scientistt/Data Entry Specialist

Assists the project in populating PEMS. Manages loading electronic data deliverables, electronic verification of data and tracks the data assessment process. Interfaces with the project for activities relating to data.

4.4   Data Reviewer

Performs data assessment and determines if the data was generated according to this procedure.

5.0   GENERAL INFORMATION

None

6.0 INSTRUCTIONS

6.1 Obtaining Access to the Environmental Databases Process or Subprocess

> NOTE:
>
> A potential user must have a network account to be able to directly access the environmental databases.

Requester

6.1.1 Send request for access to the environmental databases to the Environmental Monitoring Manager. Request can be verbal or via e-mail.

Environmental Monitor Manager

6.1.2 Grant appropriate access to requester.

6.1.3 Provide applicable system and user documentation and training to requester.

6.1.4 Conduct periodic checks of system access by approved users.

6.1.5 Request a list of database users from the Information Technology (IT) organization.

6.1.6 Review **and** approve user access to databases annually.

6.1.7 Terminate access approval when appropriate.

6.2 Data Management Coordination Activities

Requester

6.2.1 Provide Sample Management Office (SMO) with required analytical Statement of Work (SOW) information and sample information to populate the Paducah PEMS.

Scientist/Data Entry Specialist

6.2.2 Generate Chain-of-Custody (COC) forms from the Paducah PEMS.

> NOTE:
>
> Verification should be completed by someone other than the person who populated the Paducah PEMS.

6.2.3 Verify information on the COC against the information from the SOW and/or sampling plan.

6.2.4 **If** any entries are identified that need to be corrected, **then** make the necessary corrections in PEMS and go to Step **6.2.2**.

6.2.5 **If** samples fall under the Environmental Monitoring Plan**, then** verify information on the COC against the EMP **and** complete CP4-ES-5007-F01, *Review Checklist for EMP Project Verification*.

NOTE:

Field measurements are not collected or recorded in PEMS for field duplicate samples. As required under the Kentucky Wastewater Laboratory Certification Program field duplicate sample results will be included with the field laboratory QC documentation.

6.2.6 Enter data into PEMS as required by CP4-ES-5004, *Sample Tracking, Laboratory Coordination*, *and Sample Handling*.

6.2.7 Enter other non-sample information required by PEMS (e.g., lithologic descriptions, well construction, etc.).

NOTE:

Verification should be completed by someone other than the person who entered the data.

6.2.8 Print data entry from PEMS **and** verify against the original.

6.2.9 Document verification by noting on the PEMS printout **and** initial and date the note.

6.2.10 **If** any entries are identified that need to be corrected, **then** make the necessary corrections in PEMS **and** go to Step **6.2.4**.

6.2.11 **If** Geographic Information System (GIS) coordinates are obtained for the project, **then** ensure plant coordinates and state plane coordinates are provided for loading into Paducah OREIS and the Paducah GIS.

6.2.12 Load laboratory Electronic Data Deliverables (EDDs) into PEMS once received from the laboratory.

6.2.13 Check 100% of the first 4 EDDs loaded to Paducah PEMS from a specific laboratory, **and** 10% of subsequent EDDs, by comparing the laboratory printouts or data packages to printouts of data loaded to Paducah PEMS.

6.2.14 **If** discrepancies are found, **then** notify the SMO immediately.

6.2.15 Ensure the following is documented in the electronics PEMS loading logs and/or the PEMS loading notes:

- Project Identification

- Statement(s) of Work Number(s)

- Date Loaded

- Number of Records Loaded

- Description

- Electronic Deliverable Origin

- Initial Detections

- Initial Verification Checks (if any)

- Errors Noted

6.2.16 Verify the data according to CP3-ES-5003, *Quality Assured Data.*

Data Reviewer

6.2.17 Assess the data according to CP3-ES-5003.

6.2.18 Notify the SMO if there are any data assessment questions to be submitted to the laboratory.

Scientist/Data Entry Specialist

6.2.19 Once data assessment is complete, enter data assessment codes into PEMS, if applicable

6.2.20 **If** data validation was performed, **then** enter data validation codes into PEMS.

6.2.21 Notify Data Entry Specialist that data is complete so that the Ready-To-Load (RTL) file can be created and loaded into Paducah OREIS.

6.2.22 Complete the data assessment package **and** submit to Records Management for archival.

7.0 RECORDS

7.1 Records Generated

The following records may be generated by this procedure:

- Data Assessment Package

- CP4-ES-5007-F01, *Review Checklist for EMP Project Verification*

Forms are to be completed in accordance with CP3-OP-0024, *Forms Control*.

7.2 Records Disposition

The records are to be maintained in accordance with CP3-RD-0010, *Records Management Process*.

Appendix A – Acronyms/Definitions

ACRONYMS

COC– Chain-of-Custody

EDD – Electronic Data Deliverable

EMP – Environmental Monitoring Plan

GIS – Geographic Information System

IT – Information Technology

OREIS – Oak Ridge Environmental Information System

PEMS – Project Environmental Measurements System

RTL – Ready-To-Load

SMO – Sample Management Office

SOW – Statement of Work

DEFINITIONS

Data Assessment Package – Includes, but is **NOT** limited to, completed forms from CP3-ES-5003, *Quality Assured Data*, PEMS loading notes, data sheets, any notations or information applicable to the data set provided by reviewers or data management group and data verification/assessment/validation results.

Data Integrity – The accuracy, consistency, and completeness of the data that are maintained by a computer system.

Environmental Monitoring Plan– A plan that documents the rationale, sampling frequency, parameters, and analytical methods for environmental monitoring (EM) activities at the Paducah Site and provides information on site characteristics, environmental pathways, dose assessment methodologies, and quality assurance management.

Geographic Information System – Location information designed to display data spatially.

Paducah OREIS – The database system used for long-term storage of data. Paducah OREIS is the primary database system used for official data reporting.

Project Environmental Measurements System – The database system used for field preparation and tracking of data collection activities. This system is provided to project personnel and pre-populated with project information. The system generates chains-of-custody, bottle labels, and other field forms; stores analysis type and preservative information; tracks sampling progress; and stores location information. It also is used to load analytical data to perform electronic data verification on analytical data.

Appendix B – CP4-ES-5007-F01- Review Checklist for EMP Project Verification

Month: _____

Year: _____

Project:	Satisfactory (☐)			Comment
	Yes	No	N/A	
KPDES Outfalls Permit KY0004049	☐	☐	☐	
KPDES Outfalls ERPP	☐	☐	☐	
Ambient Air Monitoring Filters	☐	☐	☐	
C-746-S&T Landfill Quarterly	☐	☐	☐	
C-746-U Landfill Quarterly	☐	☐	☐	
C-746-S&T Landfill Surface Water Quarterly	☐	☐	☐	
C-746-U Landfill Surface Water Quarterly	☐	☐	☐	
Surface Water Quarterly	☐	☐	☐	
Surface Water Seeps Quarterly	☐	☐	☐	
ERPP Surface Water Quarterly	☐	☐	☐	
ERPP Surface Water Annual	☐	☐	☐	
Water Policy Boundary Quarterly	☐	☐	☐	
Water Policy Boundary Annual	☐	☐	☐	
C-404 Landfill Semiannual	☐	☐	☐	
C-613 Sed Basin Quarterly Discharge	☐	☐	☐	
C-404 Companion Wells	☐	☐	☐	
NE Plume Optimization MWs Quarterly	☐	☐	☐	
C-746-S Landfill Leachate Annual	☐	☐	☐	
C-746-U Landfill Leachate Annual	☐	☐	☐	
C-746-K Landfill Semiannual	☐	☐	☐	
Northwest Plume O&M Quarterly	☐	☐	☐	
Northwest Plume O&M Quarterly & Semiannual	☐	☐	☐	
Environmental Surveillance Annual	☐	☐	☐	
Environmental Surveillance Biennial	☐	☐	☐	
Environmental Surveillance Quarterly	☐	☐	☐	
Environmental Surveillance Quarterly & Semiannual	☐	☐	☐	
Semiannual Sediment Monitoring	☐	☐	☐	

Appendix B – CP4-ES-5007-F01- Review Checklist for EMP Project Verification (continued)

Project:	Satisfactory (☐)			Comment
	Yes	**No**	**N/A**	
ERPP Sediment Monitoring	☐	☐	☐	
C-400 Wells Quarterly	☐	☐	☐	
C-400 Wells Quarterly & Semiannual	☐	☐	☐	
Carbon Filter Treatment (Before)	☐	☐	☐	
Carbon Filter Treatment (After)	☐	☐	☐	
SWMU1 Monitoring Wells Semiannually	☐	☐	☐	
C-404 Leachate Pit	☐	☐	☐	
Geochemical Environmental Surveillance Monitoring (Triennial)	☐	☐	☐	
NE Plume CERCLA Outfall	☐	☐	☐	

Additional Scheduled Projects:	Satisfactory (☐)			Comment
	Yes	**No**	**N/A**	
	☐	☐	☐	
	☐	☐	☐	
	☐	☐	☐	
	☐	☐	☐	
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Reviewed by: _____

                   (signature/date)