| CP3-ES-5007<br>FRev. 0 | TITLE:<br>Data Management Coordination | Page 1 of 10 |
|---|---|---|
| **DOCUMENT CATEGORY**: | Administrative | |
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| **FUNCTIONAL AREA**:<br>Sample Management Office<br>**SUBJECT MATTER AREA:**<br>Data Management | **SUBJECT MATTER EXPERT**:<br>Jaime Morrow, Sample Management Office Manager | |
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| REVISION/CHANGE LOG | | | |
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| FR0 | Initial release, replaces CP4-ES-5007, update procedure to address CA-005230 and general revisions | ALL | 1/23/2025 |

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## 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 [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*

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

### 2.2   Source References

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

- DOE/LX/07-2498&D1, *Paducah Gaseous Diffusion Plant Data Management Plan*

## 3.0   COMMITMENTS

None

## 4.0   RESPONSIBILITIES

### 4.1   Requester

Submits request for project sample data to Sample Management Office (SMO).

### 4.2   Sample Management Office Manager

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

### 4.3   SMO

Populates samples in PEMS.  Manages loading electronic data deliverables (EDDs), performs 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 and CP3-ES-5003, *Quality Assured Data*.

### 4.5   Environmental Monitoring Manager

Coordinates sampling required by Environmental Monitoring Plan (EMP) with the SMO.  Approves sampling chain of custody (COC) forms.

## 5.0 GENERAL INFORMATION

None

## 6.0 INSTRUCTIONS

### 6.1 Obtaining Access to PEMS and/or OREIS

NOTE:

A potential user must have a network account to be able to directly access PEMS or OREIS.

**Requester**

**6.1.1** Send request for access to PEMS or OREIS to the Sample Management Office Manager. Request can be verbal or via e-mail.

**Sample Management Office 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 organization.

**6.1.6** Review **and** approve user access to databases as needed.

**6.1.7** Terminate access approval when appropriate.

### 6.2 Data Management Coordination Activities

**Requester**

**6.2.1** Provide SMO with required analytical Statement of Work (SOW) information and sample information to populate PEMS.

**SMO**

**6.2.2** Generate COC forms from PEMS.

NOTE:

Verification should be completed by someone other than the person who populated PEMS.

**6.2.3** Verify information on the COC form 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 EMP, **then** verify information on the COC forms against the EMP **and** complete CP3-ES-5007-F01, *Review Checklist for EMP Project Verification*.

**6.2.6** Provide COC forms and completed CP3-ES-5007-F01 form to Environmental Monitoring Manager.

## Environmental Monitoring Manager

**6.2.7** Review COC forms against requirements in the EMP.

**6.2.8** **If** discrepancies are noted, **then** resolve issues with the SMO.

**6.2.9** **If NO** discrepancies are noted, **then** sign CP3-ES-5007-F01 form and return to the SMO.

## SMO

> 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 quality control documentation.

**6.2.10** Enter data into PEMS as required by CP3-ES-5004, *Sample Tracking, Lab Coordination*, *and Sample Handling*.

**6.2.11** 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 in PEMS.

**6.2.12** Print data entry from PEMS **and** verify against the original COC form and/or sample data form.

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

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

**6.2.15** **If** Geographic Information System coordinates are obtained for the project, **then** ensure plant coordinates and state plane coordinates are provided for loading into OREIS.

**6.2.16** Load laboratory EDDs into PEMS once received from the laboratory.

**6.2.17** Check 100% of the first 4 EDDs loaded to PEMS from a specific laboratory, **and** 10% of subsequent EDDs, by comparing the laboratory sample results from data package to data loaded to PEMS.

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

**6.2.19** Ensure the following is documented in the electronic PEMS loading notes:

- Project Identification (ProjectID)

- SOW Number(s), if needed

- Date Loaded

- Number of Records Loaded

- Electronic Deliverable Origin

- Count of Detections

- Initial Verification Checks (if any)

- Errors Noted (if any)

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

**6.2.21** **If** data validation was performed, **then** enter data validation codes in PEMS.

**6.2.22** Prepare electronic project data assessment package (DAP) **and** send to Data Reviewer for assessment.

## Data Reviewer

**6.2.23** Assess the data according to CP3-ES-5003.

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

**6.2.25** Notify SMO that data assessment is complete via e-mail.

## SMO

**6.2.26** Once data assessment is complete, enter data assessment codes into PEMS, if applicable.

**6.2.27** Perform QA review.

**6.2.28** **If** project DAP contains data that is of non-environmental matrices (i.e., waste or characterization projects), **then** submit project DAP for a DC review as noted in Section 6.6 of CP3-ES-5003.

**6.2.29** Notify SMO that data is complete so that the Ready-To-Load file can be created and loaded into OREIS.

**6.2.30** Ensure completion of the  project DAP **and** submit to Records Management for archival.

## 7.0    RECORDS

### 7.1    Records Generated

The following records may be generated by this procedure:

- Project DAP

- CP3-ES-5007-F01, *Review Checklist for EMP Project Verification*

- EDD Verifications

Forms are to be completed according to CP3-OP-0024, *Forms Control*.

### 7.2    Records Disposition

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

**Appendix A–Acronyms/Definitions**

## ACRONYMS

**COC**–Chain-of-Custody

**EDD**–Electronic Data Deliverable

**EMP**–Environmental Monitoring Plan

**OREIS**–Oak Ridge Environmental Information System

**PEMS**–Project Environmental Measurements System

**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 data reports, PEMS queries/reports, PEMS loading notes, COCs, sample data forms, any notations or information applicable to the data set provided by reviewers or SMO, 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 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.

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

**PEMS**–The database system used for field preparation and tracking of data collection activities. 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–CP3-ES-5007-F01-Review Checklist for EMP Project Verification

CP3-ES-5007-F01–Review Checklist for EMP Project Verification

Month: _____    Year: _____

| Project Title: | ProjectID: | Satisfactory Yes | N/A | Comment |
|---|---|---|---|---|
| **Groundwater Sampling Programs** | | | | |
| C-746-S&T Landfill Quarterly | | ☐ | ☐ | |
| C-746-U Landfill Quarterly | | ☐ | ☐ | |
| C-404 Landfill Semiannual | | ☐ | ☐ | |
| C-404 Companion Wells | | ☐ | ☐ | |
| C-746-K Landfill Semiannual | | ☐ | ☐ | |
| NE Plume Optimization MWs Quarterly | | ☐ | ☐ | |
| Northwest Plume O&M Quarterly | | ☐ | ☐ | |
| Northwest Plume O&M Quarterly & Semiannual | | ☐ | ☐ | |
| C-400 Wells Quarterly | | ☐ | ☐ | |
| C-400 Wells Quarterly & Semiannual | | ☐ | ☐ | |
| SWMU1 Monitoring Wells Semiannual | | ☐ | ☐ | |
| SWMU 211-A Wells Semiannual | | ☐ | ☐ | |
| Water Policy Boundary Quarterly | | ☐ | ☐ | |
| Water Policy Boundary Annual | | ☐ | ☐ | |
| Carbon Filter Treatment (Before) | | ☐ | ☐ | |
| Carbon Filter Treatment (After) | | ☐ | ☐ | |
| Environmental Surveillance Quarterly | | ☐ | ☐ | |
| Environmental Surveillance Quarterly & Semiannual | | ☐ | ☐ | |
| Environmental Surveillance Annual | | ☐ | ☐ | |
| Environmental Surveillance Biennial | | ☐ | ☐ | |
| Geochemical Environmental Surveillance Triennial | | ☐ | ☐ | |
| **Surface Water Sampling Programs** | | | | |
| C-746-S&T Landfill Surface Water Quarterly | | ☐ | ☐ | |
| C-746-U Landfill Surface Water Quarterly | | ☐ | ☐ | |
| KPDES Outfalls Permit KY0004049 | | ☐ | ☐ | |
| NE Plume CERCLA Outfall | | ☐ | ☐ | |
| KDPES Outfalls ERPP | | ☐ | ☐ | |
| C-613 Sediment Basin Quarterly | | ☐ | ☐ | |

**Appendix B–CP3-ES-5007-F01-Review Checklist for EMP Project Verification (continued)**

CP3-ES-5007-F01–Review Checklist for EMP Project Verification (continued)

| Project Title: | ProjectID: | Satisfactory Yes | N/A | Comment |
|---|---|---|---|---|
| **Surface Water Sampling Programs (continued)** | | | | |
| Surface Water Quarterly | | ☐ | ☐ | |
| Surface Water Seeps Quarterly | | ☐ | ☐ | |
| ERPP Surface Water Quarterly | | ☐ | ☐ | |
| ERPP Surface Water Annual | | ☐ | ☐ | |
| **Sediment Sampling Programs** | | | | |
| Sediment Monitoring Semiannual | | ☐ | ☐ | |
| ERPP Sediment Monitoring Annual | | ☐ | ☐ | |
| **Air Filter Sampling Programs** | | | | |
| Ambient Air Monitoring Filters Quarterly | | ☐ | ☐ | |
| **Leachate Sampling Programs** | | | | |
| C-746-S Landfill Leachate Annual | | ☐ | ☐ | |
| C-746-U Landfill Leachate Annual | | ☐ | ☐ | |
| C-404 Leachate Pit | | ☐ | ☐ | |

| Project Title: | ProjectID: | Satisfactory Yes | N/A | Comment |
|---|---|---|---|---|
| **Non-EMP Routine Projects** | | | | |
| Northeast Plume Operations | | ☐ | ☐ | |
| Northwest Plume Operations | | ☐ | ☐ | |
| Site Drinking Water | | ☐ | ☐ | |
| KDOW Compliance Bimonthly | | ☐ | ☐ | |
| | | ☐ | ☐ | |
| | | ☐ | ☐ | |
| | | ☐ | ☐ | |
| | | ☐ | ☐ | |
| | | ☐ | ☐ | |
| | | ☐ | ☐ | |

Reviewed by: _____

Sample Management Office

Approved by: _____

Environmental Monitoring Manager