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REVISION/CHANGE LOG			
Revision/Change Letter	Description of Changes	Pages Affected	Date of Revision/Change
FR0	Initial Bluesheeting	All	10/20/2017
FR1	Non-Intent Revision to Incorporate Bluesheeting Changes	All	12/14/2017
FR2	Added Use Reference and new steps 6.2.2 through 6.2.4	3 & 4	8/29/2019
FR2A	Periodic Review has been completed with no changes identified in procedure technical content. Nonintent change to correct SMA, SME, approver and dates has been incorporated per CP3-NS-2001. Date for review cycle has been reset.	All	9/13/2021
FR2B	Periodic Review has been completed with no changes identified in procedure technical content. Nonintent changes have been incorporated per CP3-NS-2001. Date for review cycle has been reset.	All	11/04/2024

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1.0 PURPOSE AND SCOPE

1.1 Purpose

This procedure defines the required equipment and action steps necessary to conduct daily routine operational data collection and maintenance for the Northwest Plume Groundwater System (NWPGS) and Northeast Plume Groundwater Containment Systems (NEPCS). These systems are collectively called the Northwest Northeast Plumes (NWNPEP).

1.2 Scope

This procedure applies to all activities associated with daily routine operational data collection for the NWNPEP.

2.0 REFERENCES

2.1 Use References

- CP2-ER-0012, *Waste Management Plan for the Paducah Plume Operations Paducah Gaseous Diffusion Plant, Paducah, Kentucky*
- CP3-SM-1101, *Work Package Development*
- CP4-ER-0014, *Normal NW Plume Groundwater Shutdown and Restart*
- Job Hazard Analysis (JHA)-10844, *NW/NE Plumes Water Treatment*

2.2 Source References

- CP2-ER-0067, *Health and Safety Plan for the Paducah Plumes Operations, Paducah, Kentucky*
- DOE/OR/07 1253, *Operations and Maintenance Plan for the Northwest Plume Groundwater System Interim Remedial Action Plan at PGDP Paducah, Kentucky*
- DOE/OR/07 1535, *Operations and Maintenance Plan for the Northeast Plume Groundwater System Interim Remedial Action Plan at PGDP Paducah, Kentucky*

3.0 COMMITMENTS

None

4.0 PRECAUTIONS AND LIMITATIONS

4.1 Precautions

None

4.2 Limitations

None

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5.0 PREREQUISITES

- 5.1 Prior to performing any action steps identified in this procedure for the first time, review this document based upon its level of use in accordance with CP3-OP-0207, *Use of Procedures*.
- 5.2 Prior to daily use, verify that the procedure is current.
- 5.3 Prior to performing any action steps identified in this procedure, complete any required applicable training as per their Training Position Description (TPD).
- 5.4 Prior to using this procedure as a work control document, follow the requirements as defined in CP3-SM-1101, *Activity Level Work Request, Planning, Scheduling and Release*, for the activities being performed.
- 5.5 All forms completed in the performance of this procedure shall be completed in compliance with CP3-OP-0024, *Forms Control*.
- 5.6 Obtain the approval of the NE/NW Pump and Treat Project Manager before executing this procedure.

6.0 INSTRUCTIONS

6.1 Preparation Activities

Technician

- 6.1.1 Don personal protective clothing as specified in the CP2-ER-0067, *Health and Safety Plan for the Paducah Plumes Operations, Paducah, Kentucky* and JHA-10844.
- 6.1.2 Check communications equipment to make sure it is functional.

6.2 Daily Operational Data Collection and Maintenance

NOTE:

Activities required by the data collection and maintenance sheets do **NOT** have to be completed in a specific order.

NOTE:

The inspection and maintenance frequency during bypass of the sand filters is presented in Appendix B, *Increase in Operational Inspections and Maintenance During Sand Filter Bypass*. Additional data collected during bypass of the sand filters will be documented in the “Comments” section of form CP4-ER-0017-F02, *Daily NWNEP Operational Data Collection And Maintenance Form*.

Technician

- 6.2.1 Note significant daily events and observations in the “Comments” section of the data collection sheets.
- 6.2.2 **If** leaks or other minor abnormalities are observed, **then** shut down the system as required according to CP4-ER-0014, *Normal NW Plume Groundwater Shutdown and Restart*.

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- 6.2.3 Manually or using hand/power tools make repairs necessary to correct the minor leaks or abnormalities.
- 6.2.4 Restart the system according to CP4-ER-0014 as required.
- 6.2.5 Complete form CP4-ER-0017-F02, Daily Northwest/Northeast Plumes (NWNEP) Operational Data Collection and Maintenance Form.
- 6.2.6 Complete form CP4-ER-0017-F03, *NWNEP Winterization Checklist*, during the month of October (each year) **and** place in appropriate file.
- 6.2.7 Document all cases where data is outside of normal operating ranges in the “Readings/Comments” block on each form and circle this information in red.
- 6.2.8 Sign the bottom of each page of the data collection forms.

7.0 ACCEPTANCE CRITERIA

None

8.0 POST PERFORMANCE WORK ACTIVITIES

Technician

- 8.1.1 Give all completed data collection sheets to the Northeast/Northwest (NE/NW) Pump and Treat Project Manager.
- 8.1.2 Verbally alert the NE/NW Pump and Treat Project Manager of unusual observations or notes.
- 8.1.3 Verbally alert the NE/NW Pump and Treat Project Manager of all data collected, which is outside normal operating ranges.

9.0 RECORDS

9.1 Records Generated

The following records may be generated by this procedure:

- CP4-ER-0017-F02, *Daily Northwest Northeast Plume Operational Data Collection And Maintenance Form*
- CP4-ER-0017-F03, *Northwest Northeast Plume Winterization Checklist*

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

9.2 Records Disposition

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

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Appendix A – Acronyms/Definitions

ACRONYMS

GWOU – Groundwater Operable Unit

NE/NW – Northeast/Northwest

NEPCS – Northeast Plume Groundwater Containment Systems

NWNEP – Northwest Northeast Plumes

NWPGS – Northwest Plume Groundwater System

TPD – Training Position Description

DEFINITIONS

Technician - The person performing the technical aspects of this procedure. The person performing this work could have job functions including but not limited to the Frontline Supervisor or the Operator/Maintenance Mechanic.

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Appendix B – Increase in Operational Inspections and Maintenance During Sand Filter Bypass

- i. The following table outlines the inspection and maintenance frequency during temporary bypass of the sand filters. Data collected during bypass of the sand filters will be documented on the “comments” line of form CP4-ER-0017-F02, *Daily NWNPE Operational Data Collection and Maintenance Form*.

Inspection or Maintenance Activity	Normal Frequency	Bypass Procedure Frequency
Read Differential Pressure on Ion Exchange Columns	Daily	Twice Daily for first week then back to normal frequency
Read Pump Discharge Pressure (PI-J306) and Tower Differential Pressure (PDIS-E301) on the Air Stripper	Daily	Twice Daily for first week then back to normal frequency
Visually Inspect Air Stripper Trays	Quarterly	Weekly for 1 month, Monthly for 2 months, then back to normal

- ii. A schedule for inspection and maintenance activities will be generated based on the start date of the bypass operation. Specific days for inspection and maintenance activities may be altered to accommodate weekends and holidays.