

CP4-ER-0001 FRev. 2A	TITLE: Northwest Groundwater System Startup and Shutdown of the Air Compressors	Page 1 of 6
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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 and Update to Current Form	All	11/13/2017
FR2	General revision.	All	3/3/2021
FR2A	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	3/13/2024

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1.0 PURPOSE AND SCOPE

1.1 Purpose

This procedure is to define the startup and shutdown procedures for the Northwest Plume Air Compressors at C-612.

1.2 Scope

Startup and shutdown is valid only for two Air Compressors labeled A1-A and A1-B in C-612.

2.0 REFERENCES

2.1 Use References

- CP3-OP-0207, *Use of Procedures*
- CP3-SM-1101, *Work Package Development*

2.2 Source References

- CP2-ER-0067, *Health and Safety Plan for the Paducah Plumes Operations and C-613 Sediment Basin Paducah, Kentucky*
- CP4-ER-0014, *Normal Northwest Plume Groundwater Shutdown and Restart*
- CP4-ER-0017, *Northwest/Northeast Plume Daily Operational Data Collection and Maintenance*
- DOE/OR/07 1253, *Operations and Maintenance Plan for the Northwest Plume Groundwater System Interim Remedial Action Plan at PGDP Paducah, Kentucky*
- JHA-10844, *Maintenance, Operations, and Testing for the Northwest and Northeast Plume and Water Treatment Operations*

3.0 COMMITMENTS

None

4.0 PRECAUTIONS AND LIMITATIONS

4.1 Precautions

Cut resistant or leather gloves shall be worn for handling items with sharp edges or corners.

4.2 Limitations

None

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5.0 PREREQUISITES

- 5.1 Prior to performing the action steps identified in this procedure, users shall have reviewed this document based upon its Level of Use according to CP3-OP-0207, *Use of Procedures*.
- 5.2 Prior to performing the action steps identified in this procedure, the performer shall have completed the required applicable training.
- 5.3 Prior to using this procedure as a work control document, follow the requirements as defined in CP3-SM-1101, *Work Package Development* for the activities being performed.

Technician

6.0 INSTRUCTIONS

NOTE:

The Technician will determine the sequence of compressors.

6.1 Air Compressor Startup (Cold Start)

- 6.1.1 Close the air service valves (ACV-001 and ACV-002) between the air dryer and the check valves on each compressor package.
- 6.1.2 Start the units by pushing either the AUTO LEAD **or** the AUTO LAG buttons on each compressor.

NOTE:

The unit is equipped with a minimum [65 pounds per square inch, gauge (psig)] pressure/check valve; therefore no special procedure to maintain the unit reservoir pressure is required.

- 6.1.3 **When** the compressors are started let them run for approximately five minutes **or** until the temperature stabilizes **or** reaches 120°F, **then** open the air service valves (ACV-001 and ACV-002) serving both compressors.

6.2 Air Compressor Startup (Hot Start)

- 6.2.1 Close the air service valves (ACV-001 and ACV-002) between the air dryer and the check valves on each compressor package.
- 6.2.2 Start the units by pushing either the AUTO LEAD **or** the AUTO LAG buttons on each compressor.
- 6.2.3 **When** the units are started let them run for approximately one minute, **then** open the air service valves (ACV-001 and ACV-002) serving both compressors.

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6.3 Air Compressor Shutdown

CAUTION:

Stopping the unit at a pressure below full unload may cause oil carry-over and can damage the air/oil separator element. The oil reservoir will automatically blow down as the motor stops.

- 6.3.1 Close the air service valves (ACV-001 and ACV-002) between the air dryer and the check valve on both compressors.
- 6.3.2 Allow the unit to build up to full unload pressure and run unloaded for 1 to 2 minutes.
- 6.3.3 Press the STOP-RESET button on each compressor.
- 6.3.4 If needing to reset the compressor, **then** press the STOP-RESET button.

7.0 ACCEPTANCE CRITERIA

None

8.0 POST PERFORMANCE WORK ACTIVITIES

None

9.0 RECORDS

9.1 Records Generated

The following records may be generated by this procedure:

None

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

9.2 Records Disposition

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

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Appendix A – Acronyms/Definitions

ACRONYMS

Psig – Pounds per square inch, gauge

DEFINITIONS

Technician - The person performing the steps in this procedure. The person performing this work could have job functions including but not limited to the Frontline Supervisor, an Operator or Maintenance Mechanic.