



DRAFT for public comment

**Northwest Clean Air Agency (NWCAA) hereby issues  
Order of Approval to Construct (OAC) 1430**

**Project Summary:** Installation of a Solar Mars 100, 129.5 MMBtu/hr (12.6 MW), natural gas, turbine to replace an existing Solar Mars 90 turbine to drive the existing pipeline gas compressor associated with Unit 9.

**Approved Emission Unit:**

- One Solar Mars 100 (Mars 100) unit equipped with SoLoNOx technology.

Owner/Operator	Facility Name and Location
Williams – Northwest Pipeline, LLC 295 Chipeta Way Salt Lake City, Utah 84158 Contact: Monica Mogg	Williams – Northwest Pipeline, LLC Sumas Compressor Station 4738 Jones Road Sumas, Washington 98295

Note that in addition to other applicable rules and regulations, the approved emission unit is subject to applicable portions of the following federal regulations:

**New Source Performance Standards (NSPS)**

- 40 CFR 60 Subpart A - General Provisions
- 40 CFR 60 Subpart KKKKa – Standards of Performance for Stationary Combustion Turbines
- 40 CFR 60 Subpart OOOOb - Standards of Performance for Crude Oil and Natural Gas Facilities for Which Construction, Modification or Reconstruction Commenced after December 6, 2022

**Issuance of this Order is authorized by Northwest Clean Air Agency Regulation Section 300. The Owner/Operator must comply with the following restrictions and conditions<sup>1</sup>:**

- (1) Combust only pipeline quality natural gas in the Solar Mars 100 turbine (the turbine). Keep quarterly reports certifying that only natural gas from the pipeline was combusted by the

<sup>1</sup> Nothing in this permit is intended to, or shall, alter or waive any applicable law [including but not limited to defenses, entitlements, challenges or clarifications related to the Credible Evidence Rule, 62 FR 8315 (Feb. 27, 1997)] concerning the use of data for any purpose under the Act, generated by the reference method specified herein or otherwise.

Pursuant to Section 300.10 of the NWCAA Regulation and ch 43.21B RCW, this Order may be appealed to the Pollution Control Hearings Board (PCHB). To appeal to the PCHB, a written notice of appeal must be filed with the PCHB and a copy served upon the NWCAA within 30 days of the date the applicant receives this Order. Additional information regarding appeal procedures can be found at: <http://www.eluho.wa.gov/> under PCHB.

turbine.

- (2) Turbine visible emissions that exceed zero percent opacity in any consecutive 6-minute period, as determined by 40 CFR Part 60 Appendix A Method 9, are prohibited.
- (3) Do not exceed 9.0 ppm<sub>vd</sub> NO<sub>x</sub> at 15% oxygen from the turbine exhaust stack.
- (4) Do not exceed 25.0 ppm<sub>vd</sub> CO at 15% oxygen from the turbine exhaust stack.
- (5) Demonstrate periodic compliance with Conditions (4) and (5) by measuring the NO<sub>x</sub> and CO concentrations of the turbine exhaust stack at least every 4,380 hours of turbine operation using the following criteria:
  - (A) Conduct these measurements using a portable emissions analyzer capable of adjustment to the 15% oxygen concentration basis and verified as accurate in accordance with the process outlined in Condition (6).
  - (B) Test in accordance with EPA Conditional Test Method 34. An alternate test method may be used if approved in writing by NWCAA prior to the test.
  - (C) Perform three consecutive test runs using the portable emissions analyzer. If the average of the three runs indicate noncompliance with either Condition (4) or (5), shut down the unit as soon as is practical and contact the NWCAA promptly, but no later than 12 hours after noncompliance is found. Exceedance of the limits imposed by Condition (4) and/or (5) as indicated by the average of the three consecutive tests shall be prima facie evidence of a violation of Condition (4) and/or (5).
- (6) Verify the accuracy of any portable emissions analyzers used to satisfy the monitoring requirements of this Order no less than once every calendar year in conjunction with the annual source test required by Condition (7).
  - (A) Submit a protocol to NWCAA for approval for verifying the accuracy of any portable emissions analyzer prior to the analyzer's use to satisfy the monitoring requirements of this Order. After receiving approval for the protocol, comply with the requirements of the protocol.
  - (B) Keep records of the portable emissions analyzer accuracy verifications for not less than five years and make them available within five days for NWCAA review.
- (7) Conduct annual source testing as scheduled below, occurring no later than 13 months after the previous tests. Conduct NO<sub>x</sub> testing at four points in the normal operating range of the turbine, including the minimum point in the normal operating range and peak load. Conduct testing for other pollutants at peak load.

<u>Constituent</u>	<u>Test Method or Equivalent</u>	<u>Schedule</u>
Opacity of emissions	40 CFR 60 Appendix A Method 9	Annual
Carbon monoxide	40 CFR 60 Appendix A Method 10	Annual
Nitrogen oxides	40 CFR 60 Appendix A Method 20	Annual

- (8) Submit a test plan and a test report in accordance with NWCAA Section 367 and NWCAA Appendix A. Include the following process data in the test report: fuel usage, gas producer speed, power turbine speed, combustor inlet/exit temperatures, compressor suction/discharge pressures and ambient conditions for ISO correction.
- (9) Perform a boroscope analysis on the turbine according to the manufacturer's specified schedule (at a minimum) as detailed in the turbine O&M manual. Keep records of boroscope analyses performed.

- (10) Visually inspect the turbine fuel injectors according to the manufacturer's specified schedule (at a minimum) as detailed in the turbine O&M manual. Keep records of visual inspections of the turbine fuel injectors performed.
- (11) Maintain and operate the turbine in accordance with manufacturer's specifications and associated operation and maintenance manuals. Record all maintenance activities performed on the turbine.
- (12) Nuisance odors from the facility are prohibited at or beyond the property boundary as determined by NWCAA staff.
- (13) Provide written notice to the NWCAA of the date of removal of Solar Mars 90 (Unit 9) from the site. Provide written notice to the NWCAA of the date of initial startup of the Solar Mars 100 turbine. Postmark or email the notices no later than 15 days after startup and include a reference to OAC 1430.

---

Christos Christoforou, P.E.  
Engineer

---

Agata McIntyre, P.E.  
Engineering Manager