Northwest Clean Air Agency (NWCAA) hereby issues

REGULATORY ORDER 50

Project Summary: The Petrogas Ferndale Terminal (the facility) is a propane and butane product storage, processing, and transfer facility. The facility receives products by rail, pipeline, and truck. Products are stored in tanks connected to either a high-pressure system or a low-pressure system, which is refrigerated. Products from the low-pressure system are shipped out via marine vessels. Products from the high-pressure system are shipped out via rail, truck, or pipeline.

This order establishes federally enforceable limits upon the facility's potential-to-emit Volatile Organic Compounds from its stationary sources. Compliance with these limits, which were requested by the facility, limits facility-wide emissions below major source thresholds.

Owner/Operator	**Facility Name and Location**
Petrogas West LLC 11931 Wickchester Lane, Suite 370 Houston, TX 77043	Petrogas Ferndale Terminal 4100 Unick Road Ferndale WA, 98248 Contact: Nicole Finnamore

As authorized by Northwest Clean Air Agency Regulation Section 121, this Order is issued subject to the following restrictions and conditions[1]:

1. Limit facility-wide emissions of Volatile Organic Compounds (VOC) from stationary sources, as defined in WAC 173-401-200, to less than 80.0 tons of VOC during any 12-month rolling period. The facility includes operations at the wharf.

2. Conduct a leak detection and repair (LDAR) program for VOC facility-wide. Include all stationary equipment including compressors, pumps, sampling connections, valves, connectors, and pressure relief devices. Temporary hoses and connections to rail cars, trucks, and marine vessels in use while loading or unloading may be excluded.

   (A) Develop a facility-specific leak detection and repair (LDAR) Plan within 90 days of the effective date of this Regulatory Order and submit the LDAR Plan to NWCAA for review. Model the LDAR Plan on 40 CFR 60.5397a.

   (B) Follow the LDAR Plan at all times when the facility is in operation.

[1] Nothing in this order 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 www.eho.wa.gov under PCHB.

(C) Keep records of all activities undertaken as part of the LDAR Plan as per Condition 6 below.

3. Within 30 days after the end of each calendar month, for that month and the previous 12-month period, calculate VOC emissions for all stationary sources facility-wide, and keep records supporting how calculations were performed. Calculate VOC emissions as follows or use other methods approved in writing by NWCAA:

(A) Leaks: use data from LDAR program conducted in accordance with Condition 2 and follow the US Environmental Protection Agency's (EPA's) guidance to calculate emissions.

(B) Tanks with the potential to vent to atmosphere: account for all vapor losses using methods and emission factors in EPA's Compilation of Air Pollution Emission Factors (AP-42) Section 7.

(C) Sampling at truck rack, rail car, laboratory and pipeline: If routing samples to flare, calculate as per Condition 3.H. If not routing samples to flare, calculate mass of samples and assume 100% of each sample is VOC and evaporated.

(D) Hose disconnects, railcar and truck (loading and unloading):

(i) If routing vapors to flare, calculate as per Condition 3.H.

(ii) If not routing vapors to flare, multiply number of railcars by:

1. For propane unloading: 0.1047 lb/railcar
2. For butane loading: 3.2619 lb/railcar
3. For butane unloading: 0.0524 lb/railcar

(iii) If not routing vapors to flare, multiply number of trucks by:

1. Propane loading: 4.38 lb/truck
2. Propane unloading: 0.12 lb/truck

(E) Marine vessel hose disconnects:

(i) Butane loading: 148 pounds multiplied by number of ship disconnects.

(ii) Propane loading: 142 pounds multiplied by number of ship disconnects.

(F) Marine vessel sampling and all freeze tests: calculate mass of samples and assume 100% of each sample is VOC and evaporated.

(G) Combustion at gas-fired heaters and compressors: Multiply hours of operation by the emission factor selected for the unit. Select emission factors based on the following hierarchy:

(A) If the unit has been stack tested for VOC, use the latest stack test data, with VOCs on an "as propane" basis.

(B) If the unit hasn't been stack tested for VOC, use AP-42.

(H) Flaring:

i. Continuously measure gas flow using a flow meter that is calibrated per manufacturer's recommendations and guidelines or American Petroleum Institute (API) recommendations, whichever is more stringent. Use engineering estimates for the pilot gas flow.

ii. Use process knowledge for density and use Ideal Gas Law to calculate mass before combustion.

iii. If the flare has undergone source testing, apply the destruction efficiency from the most recent test to determine the mass of post-combustion emissions.

iv. If the flare has not undergone source testing, assume 99% destruction efficiency to determine the mass of post-combustion emissions.

(I) Thermal oxidizer: Continuously measure gas flow using a flow meter that is calibrated per manufacturer's recommendations and guidelines or API recommendations, whichever is more stringent. Use Ideal Gas Law and density of propane to calculate mass, then multiply by one percent to determine the mass of post-combustion emissions.

(J) Combustion at diesel-fired generators, engines, and pumps: Multiply hours of operation by the most appropriate emission factor(s) from AP-42 Section 3.

4. If VOC emissions calculated according to Condition 3 are more than 90% of the limits in Condition 1, submit a written notification to the NWCAA within 30 days of the discovery.

5. If the limits in Condition 1 were exceeded, submit a written notification to the NWCAA within 7 days of the discovery.

6. Keep all records created in support of this Regulatory Order on-site for at least five years and make records readily available to the NWCAA upon request.

Attest and Concurrence:

Brad Grant	Petrogas Executive Vice President & Chief Legal Officer	Date
Mark Buford	NWCAA Executive Director	Date