

Fact Sheet



For Final Minor Modification Permitting Action Under 45CSR30 and Title V of the Clean Air Act

This Fact Sheet serves to address the changes specific to this Minor Modification and shall be considered a supplement to the Fact Sheet corresponding with the Title V operating permit issued on August 18, 2015.

Permit Number: **R30-02900008-2015**
Application Received: **January 7, 2019 and April 9, 2019**
Plant Identification Number: **03-54-02900008**
Permittee: **Ergon Corporation - West Virginia, Inc.**
Mailing Address: **P.O. Box 356, Newell, WV 26050**

Permit Action Number: *MM05/MM06* Revised: *January 27, 2020*

Physical Location: Newell, Hancock County, West Virginia
UTM Coordinates: 531.25 km Easting • 4495.35 km Northing • Zone 17
Directions: Two miles south of Newell on State Route 2

Facility Description

Ergon Corporation - West Virginia, Inc. (EWVI) owns and operates a petroleum refinery (SIC 2911 and NAICS 324110) in Newell, West Virginia. The refinery processes crude oil and produces several petroleum products such as diesel, gasoline, kerosene, and crude oils. The facility has the potential to operate twenty-four (24) hours a day for seven (7) days per week.

This modification incorporates the changes authorized by R13-2334AC and R13-2334AD, which include addition of a new crude/feedstock railcar unloading facility (per R13-2334AC) and addition of piping to allow the existing NGL pressurized storage vessels (V-4002 and V-4003) to vent to the refinery's existing fuel gas system (per R13-2334AD). In addition, the "emergency" status of the two existing fire pump engines FWPUMP1 and FWPUMP2 was eliminated per the company's request in R13-2334AD since they are occasionally used for non-emergency operations (an operational limit of 500 hours per year for each of the two engines was included in the permit with this modification).

Emissions Summary

With the proposed changes in permits R13-2334AC and R13-2334AD, the facility's total increases to their potential to emit are:

Pollutant	PTE increase	Total PTE
	TPY	TPY
VOCs	26.39	197.75
Benzene	0.62	3.14
Hexane	0.64	4.56
Iso-Octane	0.06	1.72
Toluene	0.33	9.14
Ethylbenzene	0.05	1.11
Xylene	0.14	4.41
Total HAPs	1.96	24.82

Title V Program Applicability Basis

With the proposed changes associated with this modification, this facility maintains the potential to emit 227.31 tons per year of Carbon Monoxide, 200.54 tons per year of Nitrogen Oxides, and 197.75 tons per year of Volatile Organic Compounds. Due to this facility's potential to emit over 100 tons per year of criteria pollutants, Ergon - West Virginia, Inc. is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

The modification to this facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR13	Construction Permits
	45CSR16	40 CFR Parts 60, 65 Performance Standards
	45CSR30	Operating permit requirement
	45CSR34	Emission Standards for Hazardous Air Pollutants
	40 C.F.R. 60 Subparts Kb	NSPS for Storage Tanks
	40 C.F.R. 60 Subparts VVa	Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006
	40 C.F.R. 60 Subpart GGGa	NSPS for Equipment Leaks of VOCs in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006

40 CFR 63 Subpart ZZZZ	National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
40 C.F.R. 65 Subpart C	Consolidated Federal Air Rule - Storage Vessels
40 C.F.R. 65 Subpart G	Consolidated Federal Air Rule - Closed Vent Systems, Control Devices, and Routing to a Fuel Gas System on a Process

Each State and Federally-enforceable condition of the Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit (<i>if any</i>)
R13-2334AD	October 11, 2019	

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table," which may be downloaded from DAQ's website.

Determinations and Justifications

This Title V minor modification includes the revisions authorized by NSR permits R13-2334AC and R13-2334AD. As a result of the 45CSR13 changes, the following changes were made to the Title V permit under minor modifications MM05/MM06:

- The Emission Units Table 1.1 was revised to add the following equipment: Rail Car Unloading (Rail-UL), NGL Bullet Tanks V-4002 and V-4003; also, Emission Unit IDs for the existing Fire Water Pump Engines FWPUMP1 and FWPUMP2 were revised according to R13-2334AD; also, revised the design capacities of the engines: for FWPUMP1 from 350 hp to 210 hp, and for FWPUMP2 - from 350 hp to 265 hp (according to the company, the 350 hp capacity of the engines was a typo on their part).
- Revised condition 3.1.12 to match underlying condition 2.5.1 of the R13-2334AD.
- General boilerplate conditions 3.5.3, 3.5.5 and 3.5.6 were revised.
- Section 5.0 - conditions 5.1.9 and 5.1.10 were revised to add Railcar Unloading and Air Separator / Recovery Drum emission limits and Railcar Unloading throughput limits (respectively); also, conditions 5.1.15 and 5.2.6 were added to demonstrate compliance with the emission and throughput limits of conditions 5.1.9 and 5.1.10.
- Section 7.0 - condition 7.1.1 was updated to add product type for NGL pressurized storage tanks V-4002 and V-4003 ("Natural Gas Liquids"). Also, conditions 7.1.8, 7.1.9, 7.2.4, 7.4.7 and 7.4.8 were added to include requirements applicable to tanks V-4002 and V-4003. Each tank has capacity of 10,984 ft³ (311 m³) such that Subpart Kb is potentially applicable. 40 CFR 60 Subpart Kb applies to storage vessels used to store volatile organic liquids with a capacity greater than or equal to 75 m³ (19,813 gallons). However, pressure vessels designed to operate in excess of 204.9 kPa (29.7 psi) and without emissions to the atmosphere are exempt (per 40 CFR §60.110b(d)(2)). The NGL bullet tanks were installed in the spring of 2016 under permit R13-2334Y. Originally, since the bullet tanks were

designed to operate at up to 300 psi (2,068.4 kPa) with no venting required, permit R13-2334Y exempted them from the requirements of 40 CFR 60 Subpart Kb, and they were not included with the operating permit. However, based on operational experience, the company has determined that the NGL bullet tanks must operate closer to 190 psi (1,310 kPa) for the safe loading of NGL trucks and this requires venting. Therefore, the exemption under 40 CFR §60.110b(d)(2) does not apply. The company proposed to comply with 40 CFR 60 Subpart Kb using the alternative Means of Compliance option under 40 CFR §60.110b(e) (requirement 7.1.8) which allows sources to comply with many of the requirements of 40 CFR 60 Subpart Kb by complying with 40 CFR 65 Subparts C and G. Therefore, the only applicable provisions of 40 CFR 60 Subpart Kb are the requirements for determining the maximum true vapor pressure of the VOLs (40 CFR §60.116b(e), condition 7.2.4) and the provisions of 40 CFR §60.7(a)(1) (condition 7.4.8). The main requirement of 40 CFR 65 Subpart C and Subpart G is to route the emissions from the bullet tanks to the fuel gas system. According to the 40 CFR 65 Subpart C §65.42(c), for each storage vessel storing a liquid for which the maximum true vapor pressure of the total regulated material in the liquid is greater than or equal to 76.6 kPa, the owner or operator shall meet the requirements in paragraph (b)(4), (5), or (6) of 40 CFR §65.42, but since we need requirements for the "Route to process or fuel gas system" - only 40 CFR §65.42(b)(6) applies (condition 7.1.9(b)).

- Section 8.0 "Equipment Leak Detection and Repair Requirements" - according to the Regulatory Applicability Sections of the Engineering Evaluations for R13-2334AC and R13-2334AD, the "equipment" along the piping from the bullet tanks (V-4002 and V-4003) to the existing fuel gas system and along the piping from the crude oil / feedstock unloading to the existing piping to the existing crude storage tanks are subject to the requirements of 40 CFR 60 Subpart GGGa which references the LDAR program of 40 CFR 60 Subpart VVa. Therefore, the equipment mentioned above is subject to the LDAR requirements already included in Section 8.0 of the permit.
- Section 11.0 - the following additional requirements were added for the fire water pump engines FWPUMP1 and FWPUMP2: 11.1.3 (an operational limit of 500 hours per year for each of the two engines was included in order to eliminate emergency status of the engines, per the company's request, since they are occasionally used for non-emergency operations) and 11.2.3 (to demonstrate compliance with the 500 hours per year limit); also, citations of the existing conditions 11.1.1, 11.2.1.a and 11.4.1.b were updated with the underlying R13-2334AD permit's condition numbers. Also, existing conditions 11.1.1, 11.2.1, 11.2.2 and 11.4.1 (Part 63 Subpart ZZZZ requirements) were revised to reflect the change of the category of the engines from "Emergency CI" to "Non-Emergency CI < 300 hp" (in order to correct a previous typo on the company's side, the engines' capacities were changed as follows: for FWPUMP1 from 350 hp to 210 hp, and for FWPUMP2 - from 350 hp to 265 hp).

Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following:

1. 40 CFR 63 Subpart CC, *National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries* - this subpart applies only to the affected sources located at major sources of HAPs. Since this facility remains an area source of HAPs, this subpart is not applicable.
2. Permit R13-2334AD requirement 11.1.3 (based on the 40 CFR 63 Subpart ZZZZ §63.6604(b)) was left out of the permit, because it is only applicable to emergency engines.

Request for Variances or Alternatives

None

Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

Comment Period

Beginning Date: N/A for minor modifications

Ending Date: N/A

Point of Contact

All written comments should be addressed to the following individual and office:

Natalya V. Chertkovsky-Veselova
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: 304/926-0499 ext. 1220 • Fax: 304/926-0478
natalya.v.chertkovsky@wv.gov

Procedure for Requesting Public Hearing

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

Response to Comments

Not applicable.