

# 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 March 29, 2019.

Permit Number: **R30-05100009-2019**

Application Received: **July 15, 2019(MM01) and March 20, 2020(MM02)**

Plant Identification Number: **051-00009**

Permittee: **Covestro LLC**

Facility Name: **New Martinsville Facility**

Mailing Address: **17595 Energy Road, Proctor, WV 26055**

Permit Action Number: *MM01, MM02*

Revised: *May 22, 2020*

---

Physical Location:	Natrium, Marshall County, West Virginia
UTM Coordinates:	514.50 km Easting • 4397.50 km Northing • Zone 17
Directions:	The plant is approximately seven (7) miles north of New Martinsville on WV State Route 2.

---

### Facility Description

The New Martinsville facility is an integrated chemical plant whose primary purpose is to produce isocyanates, polyesters, polyethers, and acrylics. The majority of the production units in this plant are involved with the production of polyurethane products (isocyanates and polyols).

This Modification (MM01) incorporates changes permitted under R13-3463. This will add a polyurethane dispersion facility to the New Martinsville site. The new process will consist of two lines with a total annual capacity of 40 MM pounds. Overall the proposed polyurethane dispersion manufacturing process has the potential to emit, after controls, 2.68 tons of VOC per year and 0.46 tons of HAPs per year. These potentials include emissions from tanks, process vents, loading racks, and equipment leaks.

Per the Combustion MACT (40 CFR Part 63 Subpart EEE) a new Performance test was performed in August of 2019 and the results and the new Notification of Compliance were submitted to both EPA and WVDEP in November 2019. Modification (MM02) serves to align the permit with the new operating parameter limits. There is no change in potential emissions associated with the minor modification

(MM02). This modification only affects two conditions 5.1.15 and 5.1.17 of this permit as a result of the Comprehensive Performance Test that was performed in 2019. Testing under 40 C.F.R. Part 63, Subpart EEE is required every five years.

**Emissions Summary**

The change in potential emissions associated with the minor modification (MM01) is as follows:

Pollutants	Change in Potential Emissions, TPY
VOC	+2.68
Total HAPs	+0.46

**Title V Program Applicability Basis**

With the proposed changes associated with this modification, this facility maintains the potential to emit 100 tons per year of Carbon Monoxide, Nitrogen Oxides, and Volatile Organic Compounds. Due to this facility's potential to emit over 100 tons per year of criteria pollutants, the company 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	Permits for Construction, Modification, Relocation and Operation of Stationary Sources
	45CSR30	Operating permit requirement.
	45CSR34	Emission Standards for Hazardous Air Pollutants
	40 C.F.R. Part 63, Subpart VVVVVV	National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources
State Only:	None	

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**

The active permits/consent orders affected by this modification are as follows:

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit ( <i>if any</i> )
R13-3463	January 24, 2020	

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

Changes from R13-3463 have been incorporated in the Title V permit. These changes include the following:

- In the Emission Units Table, new sections were added as Prepolymer Reactors, Distillation Reactor, Formulation Reactor, Product Loading Rack, Acetone Recovery and Cleaning. Applicable requirements were added as sections 12,13 and 14 of this permit.
- Raw material storage tanks 1205, 1206, 1207, 1208, 1209, 1315, 1316, 1317, 1324, 1326 and 1327 are existing and already included in the Emission Units Table. Tank 1206 was updated per company's request. Tank 502 was added to the Emission Units Table.
- 40 CFR 63 Subpart VVVVVV (Chemical Manufacturing Area Sources). Hydrazine is found on the list in Table 1 to Subpart VVVVVV. As specified in 40 CFR §63.11494(a), chemical manufacturing operations that use or produce one of the chemicals listed in Subpart VVVVVV are subject to this regulation. Because of safety considerations, Covestro only purchases, stores, and uses hydrazine monohydrate (N<sub>2</sub>H<sub>2</sub>•H<sub>2</sub>O) (CAS number 7803-57-8). Hydrazine monohydrate is a different compound than hydrazine, has a different molecular weight and has different chemical properties. Hydrazine monohydrate is not listed by CAS number in 40 CFR Part 63 Subpart VVVVVV, Table 1 and as such this chemical is not a HAP. However, at some point in the reaction process the hydrogen bond between the hydrazine atom and the water is broken and the hydrazine reacts with the other raw materials. Covestro cannot always determine the exact concentration of hydrazine during the reaction. Covestro has made a conservative decision and declared the Polyurethane Dispersion Process a Chemical Manufacturing Process Unit (CMPU) affected facility subject to Subpart VVVVVV.
- Explanation for applicable sections of Subpart VVVVVV are as follows:

❖ §63.11495 *What are the management practices and other requirements?*

The facility is subject to the requirements of 40 CFR §63.11495 as follows:

- Each process vessel in organic HAP service is equipped with a cover or lid that is in place at all times. (§63.11495(a)(1))
- Quarterly inspections are conducted for equipment in HAP service and leaks are repaired promptly. (§63.11495(a)(3) and (4))
- It has a small heat exchange system, 8,000gal/min, and does not meet one or more of the conditions in §63.104(a). The permittee must develop and operate in accordance with a heat exchange system inspection plan. (§63.11495(b))

The facility is not subject to the requirements of 40 CFR §63.11495 as follows:

- There is no transfer of liquids containing Table 1 HAPS to tank truck or railcars. (§63.11495(a)(2))

❖ §63.11496 *What are the standards and compliance requirements for process vents?*

- §63.11496(a) - This is a batch unit. As shown in permit application R13-3463, the uncontrolled organic HAP emissions are < 10,000 lb/yr so only the recordkeeping requirements of §§63.11496(a)(2), (3), and (4) apply. Compliance with this requirement is fulfilled by condition 5.4.4 of R13-3463 (condition 13.4.4 of the proposed modification to the Title V permit).
- §63.11496(b)-This is a batch unit only and no continuous process vents, so §63.11496(b) does not apply.
- §§63.11496(c) and (d)- This unit has no combined streams and no halogenated streams, so §§63.11496(c) and (d) do not apply.
- §63.11496(f)- This unit does not have any metal HAP process vents, so §63.11496(f) does not apply.
- §63.11496(h)- This unit does not have any surge control vessels and bottoms receivers, so §63.11496(h) does not apply.

❖ §63.11497 *What are the standards and compliance requirements for storage tanks?*

There is one HAP storage tank associated with this CMPU that contains a Table 1 HAP. Tank 1206 contains Hydrazine Hydrate. The maximum true vapor pressure of hydrazine hydrate is <5.2 kPA, so none of the conditions of Table 5 to Subpart VVVVVV apply.

❖ §63.11498 *What are the standards and compliance requirements for wastewater systems?*

Per 40 CFR §63.11498, standards only apply to partially soluble HAPS – listed in Table 7 of Subpart VVVVVV. The only HAP listed from this CMPU is xylene. Based on process knowledge, the xylene contained in the wastewater will be <10,000 ppm (see condition 13.1.1.g of the proposed modification to the Title V permit). The wastewater stream will be discharged to the on-site NPDES permitted wastewater system which consists of neutralization, equalization, clarification, biological oxidation and carbon treatment; hence the facility complies with the requirements in 40 CFR §63.11498(a). Compliance with this requirement is fulfilled by condition 13.4.5 of the proposed modification to the Title V permit.

❖ §63.11499 *What are the standards and compliance requirements for heat exchange systems?*

Heat exchangers for this unit have not been completely designed at this time. (Construction has not commenced). They will be designed to meet the requirements of §63.11499.

### **Non-Applicability Determinations**

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

- 40 CFR 60 Subpart DDD (VOC Emissions from Polymer Mfg.) Per 40 CFR §60.560 the provisions of this subpart apply to affected facilities involved in the manufacture of polypropylene, polyethylene, polystyrene, or poly (ethylene terephthalate); none of which are produced by this modification.
- 40 CFR 60 Subpart NNN (Distillation Operations), 40 CFR§60 Subpart RRR (Reactor Operations), 40 CFR 60 Subpart VV/VVa (SOCMI Equipment Leaks): Generally, Subparts NNN, RRR, and VV/VVa apply to each affected facility (as defined in the respective Subpart) that "produces any of the listed chemicals (as defined in the respective Subpart) as a product, co-product, by-product, or intermediate. The proposed two production lines uses acetone as a carrier solvent, but it is "not produced" as an intermediate or final product from the two production lines. Therefore, these subparts do not apply.
- 40 CFR 63 Subpart BBBBBBBB (Chemical Preparations Industry). This modification is not part of NAICS code 325998 nor does it manufacture a target HAP, both of which are defined in 40 CFR §63.11588.

- 40 CFR 60 Subpart Kb (Volatile Organic Liquid Storage Vessels constructed, reconstructed, or modified after July 23, 1984). Per 40 CFR §60.110b, vessels with a storage capacity of greater than 75 cubic meters (19,812 gallons) that store a volatile organic liquid (VOL) with a vapor pressure greater than 15.0 kilopascals (kPa) (constructed, reconstructed, or modified after July 23, 1984) are subject to the control requirements of Subpart Kb. Of the vessels proposed in the application that have a capacity greater than 75 cubic meters, all the VOLs that are proposed to be stored in the vessels with a capacity greater than 75 cubic meters have a maximum true vapor pressure of less than 0.3 kPa. Thus, Tanks 1205, 1206, 1207, 1208, 1209, 1315, 1316, 1317, 1324, 1326, 1327, and 502 are not subject to the requirements of Subpart Kb per 40 CFR §60.110b.

### **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: Not Applicable for minor modifications.  
Ending Date: N/A

### **Point of Contact**

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

Beena Modi  
West Virginia Department of Environmental Protection  
Division of Air Quality  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304  
Phone: 304/926-0499 ext. 41283 • Fax: 304/926-0478  
Beena.j.modi@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 (Statement of Basis)**

N/A