

West Virginia Department of Environmental Protection

Austin Caperton  
Cabinet Secretary

# Title V Operating Permit Revision



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

**Permit Action Number:** MM01 **SIC:** 2869  
**Name of Permittee:** Union Carbide Corporation  
**Facility Name/Location:** Institute Facility  
**County:** Kanawha  
**Permittee Mailing Address:** P.O. Box 8361, South Charleston, WV 25303

**Description of Permit Revision:** Increase of the hourly loading rate from 17,100 to 23,100 gallons as well as an increase in VOC's and Methyl Isobutyl Ketone (MIBK) emissions.

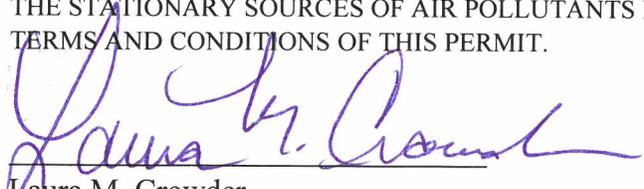
**Title V Permit Information:**

**Permit Number:** R30-03900005-2017 (Group 3A of 8)  
**Issued Date:** August 1, 2017  
**Effective Date:** August 15, 2017  
**Expiration Date:** August 1, 2022

**Directions To Facility:** From I-64, take the Institute exit, turn right onto State route 25. Plant entrance is located about 1/4 mile west on Route 25.

---

THIS PERMIT REVISION IS ISSUED IN ACCORDANCE WITH THE WEST VIRGINIA AIR POLLUTION CONTROL ACT (W.VA. CODE §§ 22-5-1 ET SEQ.) AND 45CSR30 - "REQUIREMENTS FOR OPERATING PERMITS." THE PERMITTEE IDENTIFIED AT THE FACILITY ABOVE IS AUTHORIZED TO OPERATE THE STATIONARY SOURCES OF AIR POLLUTANTS IDENTIFIED HEREIN IN ACCORDANCE WITH ALL TERMS AND CONDITIONS OF THIS PERMIT.

  
Laura M. Crowder

Director, Division of Air Quality

February 4, 2020

Date Issued

**1.0 Emission Units and Active R13, R14, and R19 Permits**

**1.1. Emission Units**

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Control Device
L1B	B1L	Barge Loading	1940s	None
L1B1	2B1L	Barge Unloading includes West Suction Pot	1981	None
L1B2	2B1L	Barge Unloading includes West Knockout Pot	1981	None

**1.2. Active R13, R14, and R19 Permits**

The underlying authority for any conditions from R13, R14, and/or R19 permits contained in this operating permit is cited using the original permit number (e.g. R13-1234). The current applicable version of such permit(s) is listed below.

Permit Number	Date of Issuance
R13-2646A	August 8, 2006
<u>R13-2646B</u>	<u>August 16, 2019</u>

## 5.0 Barge/Tank Truck/Rail Car Operations

### 5.1. Limitations and Standards

- 5.1.1. VOC emissions, which include HAPs, released to the atmosphere through emission point B1L as the result of loading operations as noted in 5.1.3 of this permit shall not exceed ~~9.6~~ **13.1** pounds per hour and 1.3 tons per year. Loading operations shall include activities associated with line cleaning/line flushing. **[45CSR13, R13-2646, 4.1.1]**
- 5.1.2. Emissions of Methyl Isobutyl Ketone (MIBK) and ethylene glycol as the result of barge loading operations shall not exceed ~~1.12~~ **1.12** and 0.01 tons per year respectively. **[45CSR13, R13-2646, 4.1.2]**
- 5.1.3. The permittee shall not exceed an hourly loading rate of ~~17,100~~ **23,100** gallons per hour of any product or material that has the potential to emit a regulated air pollutant and shall not exceed the following annual limits for the corresponding chemical or non-HAP materials listed in Table 5.1.3.

<b>Chemical Name</b>	<b>Methyl Isobutyl Ketone</b>	<b>Ethylene Glycol</b>	<b>Non-HAP Materials<sup>1</sup></b>
Annual Throughput gal/year*	10,000,000	7,500,000	7,000,000

\* Compliance shall be determined using a 12 month rolling total.

<sup>1</sup> Non-HAP Materials shall mean volatile organic compounds that do not contain any HAPs except for methyl isobutyl ketone that may be present at a concentration not to exceed 0.5 % by weight.

**[45CSR13, R13-2646, 4.1.3]**

- 5.1.4. VOC and total HAP emissions, which include ethylene glycol and methanol, released to the atmosphere through emission point 2B1L as the result of unloading operations which requires the operation of the vacuum pump shall not exceed 26.2 pounds per hour on an hourly basis and 2.0 tons per year on an annual basis. Unloading operations shall include line clear/line flushing activities. Compliance with this limit shall be established by limiting the number of barges that undergo unloading activities to no more than 121 per year. Compliance with this limit shall be determined using a 12 month rolling total. **[45CSR13, R13-2646, 4.1.4]**
- 5.1.5. The permittee shall install, operate and maintain a nitrogen blanketing system when unloading barges containing flammable organic liquids (organic liquid with a flash point less than 140 °F) that contain VOCs in the vapor space of the storage compartment. The permittee is prohibited from purging empty barges that contain VOC laden vapors that would result in the release of the discharge of VOCs into the atmosphere. **[45CSR13, R13-2646, 4.1.5]**
- 5.1.6. Compliance with all annual emission limits stated in 5.1.1, 5.1.2, and 5.1.4 shall be determined using a 12 month rolling total. A rolling 12 month total shall mean the sum of the emissions by pollutant for the previous twelve consecutive calendar months. **[45CSR13, R13-2646, 4.1.6]**

### 5.2. Monitoring Requirements

- 5.2.1. None.