

# Fact Sheet



## For Final Renewal Permitting Action Under 45CSR30 and Title V of the Clean Air Act

Group 3 of 3  
Market Development Plant  
Permit Number: R30-03900004-2011  
Plant Identification Number: 03900004  
Permittee: Union Carbide Corporation  
A Subsidiary of The Dow Chemical Company  
Facility Name: Technology Park Operations, South Charleston  
Mailing Address: P.O. Box 8361  
South Charleston, WV 25303

*Revised: N/A*

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Physical Location: South Charleston, Kanawha County, West Virginia  
UTM Coordinates: 438.7 km Easting • 4,245.5 km Northing • Zone 17  
Directions: From Charleston take Kanawha Turnpike exit.  
Travel west on Kanawha Turnpike approximately 0.5 miles.

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### Facility Description

This permit (Group 3 of 3) will cover facility manufacturing operations. (Group 2 of 3) will cover facility support activities and infrastructure operations. The research and development groups (Group 1 of 3) provide experimental, analytical, and engineering support for the development of new products, process technology for manufacturing, and support for existing products and processes. Primary SIC Code for this Facility: 2869

**Emissions Summary**

<b>Plantwide Emissions Summary [Tons per Year]</b>		
<b>Regulated Pollutants</b>	<b>Facility Wide Potential Emissions</b>	<b>Facility Wide 2009 Actual Emissions</b>
Carbon Monoxide (CO)	17.79	10.4
Nitrogen Oxides (NO <sub>x</sub> )	37.71	1.9
Particulate Matter (PM <sub>10</sub> )	0.63	0.06
Total Particulate Matter (TSP)	0.77	0.06
Sulfur Dioxide (SO <sub>2</sub> )	4.01	0.01
Volatile Organic Compounds (VOC)	195.85	78.5
<i>PM<sub>10</sub> is a component of TSP.</i>		
<b>Hazardous Air Pollutants</b>	<b>Facility Wide Potential Emissions</b>	<b>Facility Wide 2009 Actual Emissions</b>
Toluene	10.5	1.11
Total HAPs (Including Toluene)	15.0	3.88

*Some of the above HAPs may be counted as PM or VOCs.*

**Title V Program Applicability Basis**

This facility has the potential to emit over 100 tons per year of VOC's and 10.5 tons per year of Toluene. Due to this facility's potential to emit over 100 tons per year of a criteria pollutant and over 10 tons per year of a single HAP, Union Carbide Corporation's Technology Park Operations 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.

This facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR6	Open burning prohibited.
	45CSR7	Particulate Matter emissions
	45CSR11	Standby plans for emergency episodes.
	45CSR13	
	WV Code § 22-5-4 (a) (14)	The Secretary can request any pertinent information such as annual emission inventory reporting.
	45CSR30	Operating permit requirement.
	45CSR34	Emission Standards for HAPs pursuant to 40 C.F.R. Parts 61 and 63.
	40 C.F.R. Part 61	Asbestos inspection and removal

	40 C.F.R. Part 63, Subpart FFFF	Miscellaneous Organics NESHAP (MON)
	40 C.F.R. Part 82, Subpart F	Ozone depleting substances
State Only:	45CSR4	No objectionable odors.
	45CSR42	Greenhouse Gas Emissions Inventory Program

Each State and Federally-enforceable condition of the draft Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the draft Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the draft 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> )
R13-2631A	5/8/2009	

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 B," which may be downloaded from DAQ's website.

**Determinations and Justifications**

Changes made to the Title V Permit since the last revision is summarized below:

- 45CSR30 – *Requirements for Operating Permits*  
 Previously, the facility was divided into 2 Groups. Group 1 is Research and Development. Group 2 has now been divided into two separate Title V Permits, Group 2 and Group 3. The Environmental Operations and Shared Services/Energy Systems is included in Group 2. The Market Development Plant is included in Group 3. This division is a result of the intention of the Permittee to transfer the Group 3 Permit to a new Owner/Operator in the future.
- 40CFR63 – Subpart FFFF - *Miscellaneous Organics NESHAP (MON)*  
 The permittee has discovered that 2,2,4 – Trimethylpentane is contained in a solvent used in the Organo Metallic Product Unit. Storage Vessel K18 is now recognized as a Group 2 batch process under the MON. The vessel has been listed in Attachment 1.  
  
 40CFR§63.2455(b) required a TRE Index Evaluation for the Continuous Process Vent - Group 2 K06/E-325-Product Separation and Solvent Recovery – Recovery Device. The report was submitted by cover letter dated June 21, 2010. No further action is required. The citation has been made to the last page of the permit.

### **Non-Applicability Determinations**

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

1. 45CSR27 - *To prevent and control the emissions of Toxic Air Pollutants:*

The potential emissions for the entire facility are lower than the threshold values in 45CSR27 Table A, so the facility is not subject to the Best Available Technology requirements.

2. 40 C.F.R. Part 64 - Compliance Assurance Monitoring (CAM)

Group 3 is not subject for the following reasons:

Union Carbide Corporation's Technology Park Market Development Process is not subject to the Compliance Assurance Monitoring (CAM) rule because they are subject to 40 C.F.R. Part 63 Subpart FFFF that was proposed after November 11, 1990.

3. 40 C.F.R. Part 63, Subpart EEEE - *OLD MACT*

Storage Tank T6392-28832 (SPA) was subject to recordkeeping requirements from this subpart. However, the tank now stores propylene glycol instead of methanol. As such, this tank is no longer subject to Subpart EEEE.

4. 45CSR42 - *Greenhouse Gas Emissions*

This facility has greenhouse gas emissions less than the de minimus amounts listed in 45CSR§42-3.1, which is listed in Condition 3.1.9. As such, there are no applicable reporting requirements.

### **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: December 10, 2010  
Ending Date: January 10, 2011

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

Mike Egnor  
Title V Permit Writer  
West Virginia Department of Environmental Protection  
Division of Air Quality  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304

### **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.

**Point of Contact**

Mike Egnor  
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. 1208 • Fax: 304/926-0478

**Response to Comments (Statement of Basis)**

Not applicable