

# Fact Sheet



## For Proposed 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 original Fact Sheet corresponding with the issuance of the initial Title V operating permit issued on May 8, 2008.

Permit Number: **R30-05100009-2008**

Application Received: **December 10, 2009**

Plant Identification Number: **03-054-051-00009**

Permittee: **Bayer MaterialScience LLC**

Facility Name: **New Martinsville Facility**

Mailing Address: **North State Route 2, P.O. Box 500, New Martinsville, WV 26155-0500**

*Permit Action Number: MM02*

*Revised: Proposed*

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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.

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### 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). The facility is characterized by primary and secondary SIC codes 2869 and 2821, respectively.

The proposed permit reflects the results of a compliance demonstration required by the replacement standards in accordance with the hazardous waste combustor (HWC) MACT, 40C.F.R.63, subpart EEE. These results were reported within the notification of compliance status report submitted on November 12, 2009. This modification serves to align permit conditions with the new emission standards and associated operating limits defined during compliance testing.

This permit revision also included Bayer's modification of minor NSR permit R13-842D. The purpose of this NSR permit modification was also to synchronize its conditions with the new HWC replacement standards. Lastly, on January 29, 2010, WVDAQ recognized two permits as inactive, R13-1040B and

R13-2351B for the Dispersion and Aspartame Units respectively. As a result, Sections 11 and 12 of the Title V permit were revised appropriately to reflect the shutdowns.

### Emissions Summary

The emission reductions noted below are a result of shutting down the equipment permitted under R13-2351B. The primary HAPs reduced were hydrazine, triethyl amine, and toluene at 0.1, 1.05, and 0.2 tons per year respectively.

<b>Emissions Summary [Tons per Year]</b>		
<b>Regulated Pollutants</b>	<b>Potential Emissions</b>	<b>Change in Emissions</b>
Carbon Monoxide (CO)	69.3	
Nitrogen Oxides (NO <sub>x</sub> )	109.7	
Particulate Matter (PM <sub>10</sub> )	16.9	
Total Particulate Matter (TSP)	14.2	
Sulfur Dioxide (SO <sub>2</sub> )	7.6	
Volatile Organic Compounds (VOC)	128.7	-7.04

*PM<sub>10</sub> is a component of TSP.*

<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>	<b>Change in Emissions</b>
Total HAPs	24.4	-1.39

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

### Title V Program Applicability Basis

Taking into account the proposed changes, the subject facility maintains the potential to emit 109.7 tpy of NO<sub>x</sub> and 121.7 tpy of VOC. As a result of this facility's potential to emit over 100 tons per year of a criteria pollutant, Bayer MaterialScience LLC is required to have an operating permit pursuant to 45CSR30 and Title V of the Federal Clean Air Act as amended.

### 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:	45CSR30	Operating permit requirement.
	45CSR34	Emission Standards for HAPs
	45CSR13	Minor NSR, Construction and Modification Permits
	40CFR63	Subpart EEE National Emission Standard for Hazardous Air Pollutants from Hazardous Waste Combustors
State Only:	45CSR4	No objectionable odors.

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> )
R13-0842E	01-29-2010	

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

The following discussion explains the proposed changes to be made in the various permit sections.

#### Permit Subsection 1.1. Equipment Table

The equipment listed within the ATP and SPU (Dispersion) sections of the table were removed. This also includes control equipment listed at the end of the table pertaining to the ATP and SPU (Dispersion) units.

#### Permit Subsection 1.2. Active Permit Table

The modification permit R13-0842E was added to the list, which replaced R13-0842D. Additionally, permit numbers R13-1040 and R13-2351 were removed from the table since these permits are now recognized as inactive due to the shutdown of the ATP and SPU (Dispersion) units.

#### Permit Condition 3.1.9.

Added a reference to the newly issued R13-0842E and struck a reference to R13-2351 since this permit is now inactive.

#### Permit Conditions 3.5.3. and 3.5.5.

Updated boilerplate language regarding submittal of reports and annual compliance certifications to reflect EPA's request to submit annual compliance certifications electronically.

#### Permit Condition 6.1.8

Removal of PM, CO, Hydrocarbon, and hydrogen chloride emissions limits to reflect the changes implemented by minor source NSR permit number R13-842E. These limits were recognized as less stringent than those adopted by the Hazardous Waste Combustor (HWC) MACT standard under 40 C.F.R. 63, Subpart EEE. Additionally, streamlining language for PM was no longer necessary and was removed.

#### Permit Condition 6.1.9.

In accordance with minor NSR permit R13-842E the incinerator limit on operating hours was changed from 8000 hrs/yr to 8760 hrs/yr. This was requested by the permittee to align with the requirements of the HWC MACT.

Permit Condition 6.1.14.

This permit condition was modified to incorporate phase II replacement standards in accordance with 40 C.F.R. 63, Subpart EEE (HWC MACT).

Permit Condition 6.1.15.

As a result of demonstrating compliance with the HWC replacement standards the source defined new waste feed cut off limits in accordance with a performance test demonstration as outlined within their Notification of Compliance Status (NOCS) Report. These new limitations were incorporated within the existing table where appropriate.

Permit Condition 6.1.17.

Additionally, also in accordance with the permittee's NOCS report, new operating limits were defined and incorporated within this condition to replace the previous phase I interim standards and their associated operating limitations.

Permit Condition 6.1.28.

Incorporated changes approved by minor source NSR permit R13-0842E pertaining to a waste tank control requirement. As it was outlined in the NSR permit revision the tank is considered a pressure vessel and therefore, does not vent to the atmosphere during normal operation. As a result, the control requirement was removed from R13-842E and thus the Title V permit.

Permit Condition 6.4.2(d).

Also, in accordance with the changes implemented by R13-842E, the recordkeeping was removed for the waste tank carbon drum change outs since, there is no carbon drum or vent on the waste tank.

Permit Condition 6.6.1.

A compliance plan was added as a result of the HWC testing in order to address questions raised with respect to inlet air monitoring values tabulated during the compliance test. After working in conjunction with Josh Woody of WVDAQ's Hazardous Waste Section to evaluate a material and energy balance conducted by Gary Gross of EPA, it was noted that the inlet air monitoring device was calibrated by passive monitoring equipment rather than direct measurement comparisons. Therefore, the objective of this compliance plan is to verify the values being reported are representative of actual flows as well as to provide a correlation between combustion air inlet values and the exiting stack flow measurements.

Permit Section 11.0.

This entire section was removed and reserved as a result of the ATP unit shutdown and minor source NSR permit R13-1040B becoming inactive.

Permit Section 12.0

Select permit conditions from this section were also removed and reserved as a result of the SPU (Dispersion) Unit shutdown and minor source NSR permit R13-2351 being recognized as inactive. This includes the removal of the following permit conditions: 12.1.1, 12.1.2, 12.1.3, 12.2.1, 12.4.1, 12.4.2, 12.4.3, and 12.4.4. Each of these requirements were derived from the inactive permit. The sections that remain pertain to limiting HAP emissions below major source thresholds for the remaining non-dispersion SPU equipment.

## **Non-Applicability Determinations**

The subject facility is located in Marshall County, WV. As a result, the volatile organic compound (VOC) regulations of 45CSR21 do not apply.

Bayer's New Martinsville facility is a major source of carbon dioxide emissions however, the hazardous waste combustor is not subject to PSD permitting requirements at this time due to there being no permitted increases of CO<sub>2</sub> or other regulated pollutants, which would trigger significant increase levels and a PSD permit review at this time.

### **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: June \_\_, 2011 \* No public comment period, EPA notice only.  
Ending Date: July \_\_, 2011

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

Jesse Hanshaw, P.E.  
Title V Permit Writer  
West Virginia Department of Environmental Protection  
Division of Air Quality  
601 57th Street, S.E.  
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**

Jesse Hanshaw, P.E.  
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. 1221 • Fax: 304/926-0478

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

Pending