

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 October 3, 2011.

Permit Number: **R30-03900007-2011**
Application Received: **March 28, 2013**
Plant Identification Number: **03-54-03900007**
Permittee: **Bayer CropScience**
(Larvin)
(Group 6 of 8)
Facility Name: **Institute Site**
Mailing Address: **P.O. Box 1005**
Institute, WV 25112

Permit Action Number: MM02 Revised: November 22, 2013

Physical Location: Institute, Kanawha County, West Virginia
UTM Coordinates: 432.0 km Easting • 4,248.3 km Northing • Zone 17
Directions: The facility is located west of Institute, WV, adjacent to State Route 25
and West Virginia State College.

Facility Description

Bayer CropScience, an agricultural chemical based company, operates a multi-product, multi-process chemical plant. The Plant has five basic manufacturing units along with several other production facilities primarily responsible for producing raw materials used in the manufacture of agricultural chemicals. The principal products produced at the Institute site are SEVIN brand carbaryl, TEMIK brand aldicarb, LARVIN brand thiodicarb, RHODIMET AT-88, oxamyl, BPMC, Carbofuran, and Carbosulfan. SIC Codes: 2879; 2869

Group Description

The facility was divided into 8 Title V Permits. They were broken down as follows:
Group 1 – Powerhouses, Maintenance, Wastewater Treatment Unit, Laboratories

- Group 2 – Rhodimet
- Group 3 – Carbofuran Unit, Carbosulfan Unit
- Group 4 – Aldicarb, BPMC, Oxamyl
- Group 5 – Polymers (Note this process was closed in 2004 and no Title V Group 5 Permit was issued)
- Group 6 – Larvin Unit
- Group 7 – Naphthol Unit, PANA, Jet
- Group 8 – Phosgene, MIC, SEVIN

Emissions Summary

Condition 4.1.1 has been revised to show the increased emissions from the Larvin area due to the fact that these emissions are no longer permitted to vent to the Boiler E480.

Previous emissions for Table 4.1.1:

Emission Point	Pollutant	Emission Limit	
		lbs/hr	tpy
330B (15e)	NOx	6.67	10.3
	SOx	58.0	34.8
	PM10	2.23	1.83
	Total VOC	2.49	1.81
	Total HAPs	3.30	1.98
332C	NOx	8.68	37.98
	SOx	0.58	2.56
	PM10	0.07	0.29
	PM2.5	0.07	0.29
	Total VOC	0.51	2.23
	Total HAPs	0.26	1.14

Modified emissions for Table 4.1.1:

Emission Point	Pollutant	Emission Limit	
		lbs/hr	tpy
330B (15e)	NOx	7.79	11.0
	SOx	106.6	64.0
	PM10	2.95	2.26
	Total VOC	5.91	3.86
	Total HAPs	7.44	4.47
332C	NOx	9.24	40.4
	SOx	1.07	4.69
	PM10	0.08	0.32
	PM2.5	0.08	0.32
	Total VOC	1.19	5.23
	Total HAPs	0.95	4.17

The proposed changes addressed in permit application R13-0641D shall result in the affected emission points undergoing a net emissions rate change as shown in the following Table 1 - Net Emissions Summary.

Table 1 - Net Emissions Summary

Pollutant	lbs/hr	tpy
NOx	1.68	3.12
SOx	49.09	31.33
PM10	0.73	0.46
PM2.5	0.01	0.03
Total VOC	4.10	5.05
Total HAPs	4.83	5.52

Title V Program Applicability Basis

This facility still has the potential to emit over 100 TPY of criteria pollutants and over 25 TPY of aggregate HAPs. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, and over 25 tons per year of aggregate HAPs, Bayer CropScience's Institute Site 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:	45CSR6 45CSR7 45CSR10 45CSR11 45CSR13	Open burning prohibited. Particulate Matter emissions Sulfur Oxide emissions Standby plans for emergency episodes. Permits for construction, modification, relocation, etc.
	WV Code § 22-5-4 (a) (14)	The Secretary can request any pertinent information such as annual emission inventory reporting.
	45CSR30 45CSR34 40 C.F.R. Part 61 40 C.F.R. Part 63 Subpart MMM	Operating permit requirement. Hazardous Air Pollutants Asbestos inspection and removal Pesticide Active Ingredient (PAI) MACT
State Only:	45CSR4 45CSR21 (Section 40) 45CSR27	No objectionable odors. Volatile Organic Compound emissions Toxic Air Pollutants

*Other groups at this facility may be subject to additional applicable state and federal rules.

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>)
R13-0641D	9/5/2013	

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 as part of this minor modification are summarized below:

R13-0641D

1. Powerhouse #1 which contains Boilers #3 and #4 has been permanently shutdown. This control device (E480) has been removed from the Permit. References to this control device have been removed from the equipment table.
2. Some of the emission limits in Condition 4.1.1 have been revised. This is due to the fact that the Powerhouse #1 is no longer being used as a control device. All of the emissions from the Larvin process now are treated by the control devices in the Group 6 of 8 Permit. Additionally, the Permittee used new assumptions to calculate ODC (Ozone Deleting Compound) emissions. This has increased the HAP's in part in Condition 4.1.1.
3. Section 1.2 of the Permit has been revised to update the most recent version of the R13 Permit.
4. A new section of vent header will be installed to directly route the vent stream to the PTO. This does not affect this Permit.

Non-Applicability Determinations

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

1. 40 C.F.R. Part 64 - Compliance Assurance Monitoring (CAM)

Group 6 is not subject for the following reasons:

40CFR§64.2(a)(3) – This Group does not have any pollutant-specific emission units with potential, pre-control device emissions equal to or greater than 100 percent of the amount, in tons per year, of any pollutant that would require the unit to be classified as a major source.

2. Greenhouse Gas Tailoring Rule
This modification did not trigger a PSD permit. As such, there are no applicable GHG permitting 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: N/A

Ending Date: N/A

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 57th 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 57th Street SE
Charleston, WV 25304
Phone: 304/926-0499 ext. 1208 • Fax: 304/926-0478

Response to Comments (Statement of Basis)

None