# West Virginia Department of Environmental Protection Division of Air Quality

# **Fact Sheet**



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

Permit Number: **R30-09900010-2023**Application Received: **February 22, 2022**Plant Identification Number: **03-54-099-00010** 

Permittee: **Braskem America**, Inc. Facility Name: **Neal Plant / Kenova** 

Mailing Address: 200 Big Sandy River Road, Kenova, WV 25530

Physical Location: Kenova, Wayne County, West Virginia

UTM Coordinates: 360.60 km Easting • 4246.10 km Northing • Zone 17

Directions: From I-64 take Exit 1. Go south on US 52, approximately 2 miles to the

stop sign and turn right. Then take another right at "T" intersection and then go 1/4 mile then turn left just after going through railroad underpass. Make a left after underpass and go one mile to the plant entrance on the

right.

#### **Facility Description**

Braskem America, Inc. (Braskem) owns and operates a polypropylene resin manufacturing facility located in Kenova, WV; the facility is commonly referred to as the Neal Plant. The Neal Plant operates under SIC code 2821. The process to produce polypropylene resin includes a feed purification system, a polymerization process, and a product finishing and shipping area. The Neal Plant's process includes a catalyst preparation system, two reaction loops, a material recovery step, and product extrusion process. The Neal Plant also operates a number of boilers to supply steam to various areas of the facility. The facility has the potential to operate 24 hours a day, 7 days a week.

# **Emissions Summary**

# Plantwide Emissions Summary [Tons per Year]

| Regulated Pollutants                    | Potential Emissions | 2021 Actual Emissions |
|---|---------------------|-----------------------|
| Carbon Monoxide (CO)                    | 74.91               | 18.77                 |
| Nitrogen Oxides (NO <sub>X</sub> )      | 72.95               | 17.78                 |
| Particulate Matter (PM <sub>2.5</sub> ) | 90.11               | 48.87                 |
| Particulate Matter (PM <sub>10</sub> )  | 92.94               | 51.73                 |
| Total Particulate Matter (TSP)          | 103.85              | 62.63                 |
| Sulfur Dioxide (SO <sub>2</sub> )       | 1.04                | 0.25                  |
| Volatile Organic Compounds (VOC)        | 208.04              | 58.24                 |

# $PM_{10}$ is a component of TSP.

| Hazardous Air Pollutants | <b>Potential Emissions</b> | 2021 Actual Emissions |
|--------------------------|----------------------------|-----------------------|
| Hexane                   | 1.48                       | 0.47                  |
| Other HAPs               | 0.08                       | 0.02                  |
| Total HAPs               | 1.56                       | 0.49                  |

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

# **Title V Program Applicability Basis**

This facility has the potential to emit 208.04 tons per year of VOCs. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, Braskem America, Inc.'s Neal Plant 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: | 45CSR2    | To Prevent And Control Particulate Air Pollution<br>From Combustion Of Fuel In Indirect Heat |
|--------------------|-----------|--|
|                    | 1.5.00D c | Exchangers   |
|                    | 45CSR6    | Open burning prohibited.   |
|                    | 45CSR7    | To Prevent And Control Particulate Matter Air  |
|                    |           | Pollution From Manufacturing Processes And   |
|                    |           | Associated Operations  |
|                    | 45CSR10   | To Prevent And Control Air Pollution From The  |
|                    |           | Emission Of Sulfur Oxides  |
|                    | 45CSR11   | Standby plans for emergency episodes.  |
|                    | 45CSR13   | Permits For Construction, Modification, Relocation   |
|                    |           | And Operation Of Stationary Sources Of Air   |
|                    |           | Pollutants, Notification Requirements, Administrative  |

|             |                              | Updates, Temporary Permits, General Permits, And    |
|-------------|------------------------------|---|
|             |                              | Procedures For Evaluation                           |
|             | WV Code § 22-5-4 (a) (14)    | The Secretary can request any pertinent information |
|             |                              | such as annual emission inventory reporting.        |
|             | 45CSR30                      | Operating permit requirement.                       |
|             | 45CSR16                      | Standards Of Performance For New Stationary         |
|             |                              | Sources   |
|             | 45CSR34                      | Emission Standards For Hazardous Air Pollutants     |
|             | 40 CFR Part 60, Subpart Dc   | Standards of Performance for Small Industrial-      |
|             |                              | Commercial-Institutional Steam Generating Units     |
|             | 40 CFR Part 60, Subpart VV   | Standards of Performance for Equipment Leaks of     |
|             |                              | VOC in the Synthetic Organic Chemicals              |
|             |                              | Manufacturing Industry for which Construction,      |
|             |                              | Reconstruction, or Modification Commenced After     |
|             |                              | January 5, 1981, and on or Before November 7, 2006  |
|             | 40 CFR Part 60, Subpart DDD  | Standards of Performance for Volatile Organic       |
|             |                              | Compound (VOC) Emissions from the Polymer           |
|             |                              | Manufacturing Industry                              |
|             | 40 C.F.R. Part 61            | Asbestos inspection and removal                     |
|             | 40 CFR Part 63, Subpart ZZZZ | National Emissions Standards for Hazardous Air      |
|             |                              | Pollutants for Stationary Reciprocating Internal    |
|             |                              | Combustion Engines                                  |
|             | 40 CFR 64                    | Compliance Assurance Monitoring                     |
|             | 40 C.F.R. Part 82, Subpart F | Ozone depleting substances                          |
| State Only: | 45CSR4                       | No objectionable odors.                             |
|             | 45CSR21                      | Regulation To Prevent And Control Air Pollution     |
|             |                              | From The Emission Of Volatile Organic Compounds     |

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<br>Consent Order Number | Date of<br>Issuance | Permit Determinations or Amendments That<br>Affect the Permit (if any) |
|-----------------------------------|---------------------|--|
| R13-1830O                         | March 13, 2020      |  |
| G60-C019                          | August 3, 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," which may be downloaded from DAQ's website.

#### **Determinations and Justifications**

The following changes to the permit were made since the latest permit modification MM01 (issued 05/19/2020):

- 1. Page 1 the permittee mailing address was revised to change the name of the road from "Big Sandy Road" to "Big Sandy River Road".
- 2. Permit Shield (condition 3.7.2) the following reason for non-applicability of the 40 CFR 63, Subpart EEEE and Subpart FFFF was added to conditions 3.7.2, d and 3.7.2, e: "this Subpart only applies to major sources of HAPs, and the Neal Plant is not a major source of HAPs".
- 3. Section 8.0 40 CFR 63 Subpart ZZZZ language was revised in accordance with the latest Subpart revision. Also, an applicable reporting requirement 40 CFR §63.6650(h) was added for Emergency Fire Pumps EG-1 and EG-2 (condition 8.5.5).

# **Non-Applicability Determinations**

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

a. **40 CFR 60 Subpart Dc** - *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units:* Boiler #1 (B600) commenced construction prior to June 9, 1989 and has not undergone a modification or reconstruction. The addition of a low NOx burner in 1995 is not considered a modification under 40CFR60, Subpart A.

Boilers H-081 and H-082 each have maximum design heat inputs less than 10 MMBtu/hr.

- b. **40 CFR 60, Subpart DDD -** *Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry:* Tanks F-698, D103, D105, D106A, D106B, D107, D110A, D110B, F-8809A, F-8809B, F291, H-9209A tank, H-9209B tank, F1000, F290, F704, and F707 are not affected facilities as they are not included in the definitions of the affected sources (i.e., raw materials preparation, polymerization reaction, material recovery, product finishing, and product storage).
- c. 40 CFR 60, Subpart VVa Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006: The Neal Plant does not produce, as intermediates or final products, any of the chemicals listed in 40 CFR §60.489, and therefore is not included as an affected facility in the definition for "synthetic organic chemical manufacturing industry" per 40 CFR §60.481a.
- d. **40 CFR 63, Subpart EEEE** *National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline):* The liquid materials handled and processed at the facility do not contain organic HAPs listed in Table 1 of this subpart in concentrations of five (5) percent by weight or greater as determined according to the procedures specified in 40 CFR §63.2354(c). Therefore in accordance with the definitions in 40 CFR §63.2406, the Neal Plant is not defined as "an organic liquids distribution" (OLD) operation. Also, this Subpart only applies to major sources of HAPs, and the Neal Plant is not a major source of HAPs.
- e. **40 CFR 63, Subpart FFFF -** *National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing:* Pursuant to 40 CFR §63.2435(b), organic chemical manufacturing process units (MCPU) include the equipment necessary to operate a miscellaneous organic chemical manufacturing process as defined in 40 CFR §63.2550 that satisfies all of the conditions specified in paragraphs (b)(1) through (3) of §63.2435. Although the Neal Plant meets the criteria in paragraphs (b)(1)

and (b)(3) it does not meet the criteria in paragraph (b)(2) in that it does not use, or generate any of the organic HAP listed in section 112(b) of the CAA or hydrogen halide and halogen HAP, as defined in 40 CFR §63.2550. Therefore, the Neal Plant does not operate an MCPU subject to this subpart. Also, this Subpart only applies to major sources of HAPs, and the Neal Plant is not a major source of HAPs.

- f. **40** CFR **63**, Subpart VVVVV (GACT **6V**) *National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources:* The Neal Plant facility does not use as feedstock, generate as a byproduct, or produce as product in the chemical manufacturing process unit, any of the HAPs listed in Table 1 of this subpart and therefore does not meet the applicability condition in 40 CFR §63.11494(a)(2).
- g. **40 CFR Part 64 Compliance Assurance Monitoring (CAM)** there were no changes at the facility since the previous permit renewal was issued that required re-evaluation of the CAM applicability.

# **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: February 1, 2023 Ending Date: March 3, 2023

#### **Point of Contact**

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

Natalya V. Chertkovsky-Veselova 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. 41250

Phone: 304/926-0499 ext. 41250 natalya.v.chertkovsky@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)**

Not applicable.