

Fact Sheet



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

Permit Number: **R30-03900001-2018 (1 of 5)**

Application Received: **August 28, 2017**

Plant Identification Number: **039-00001**

Permittee: **The Chemours Company FC, LLC**

Facility Name: **Belle Plant**

Mailing Address: **901 West DuPont Avenue, Belle, WV 25015**

Physical Location:	Belle, Kanawha County, West Virginia
UTM Coordinates:	451.90 km Easting • 4232.60 km Northing • Zone 17
Directions:	Route 60 exit; right on DuPont Avenue; left at plant gate.

Facility Description

Wastewater Treatment Plant. The wastewater treatment plant operation consists of process and sanitary waste collection, equalization/isolation, neutralization, aeration, clarification, de-watering of waste sludge, lime stabilization and landfilling of de-watered sludge. Raw materials used at the Wastewater Treatment plant include 50% caustic, sulfuric acid, phosphoric acid, anti-foams, aqueous polymers and calcium oxide.

Boilers. Steam is generated by burning natural gas in four indirect-fired boilers generating 450 psig steam. A segment of the 450 psig steam is used by plant processes. The remaining is reduced to 150 psig and 10 psig steam. Water used to feed each boiler is conditioned at the Powerhouse Filtered Water Plant where water is filtered in the sand filters to remove sediment.

Fire Water Pumps. There are 2 diesel engines (755 HP and 800 HP) that are used in emergencies for the fire water pumps.

Emissions Summary

Emissions Summary [Tons per Year]		
Regulated Pollutants	Potential Emissions Group 1	2017 Actual Emissions Facility Wide
Carbon Monoxide (CO)	360.20	95.41
Nitrogen Oxides (NO _x)	1,202.00	217.34
Particulate Matter (PM ₁₀)	17.52	2.89
Total Particulate Matter (TSP)	35.04	8.92
Sulfur Dioxide (SO ₂)	4.20	0.57
Volatile Organic Compounds (VOC)	116.70	618.49
<i>PM₁₀ is a component of TSP.</i>		
Hazardous Air Pollutants	Potential Emissions Group 1	2017 Actual Emissions Facility Wide
Methanol	65.20	79.89
Other HAPs	10.20	14.64

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 Carbon Monoxide, Nitrogen Oxides, and Volatile Organic Compounds. The facility also has the potential to emit over 10 tons per year of Methanol and over 25 tons per year of aggregate HAPs. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, over 10 tons per year of a single HAP, and over 25 tons per year of aggregate HAPs, The Chemours Company FC, LLC's Belle 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
 45CSR6
 45CSR7
 45CSR10
 45CSR11
 45CSR13
 45CSR16

PM from combustion of fuel in indirect heat exchangers.
 Open burning prohibited.
 PM from manufacturing process operations.
 Control of sulfur oxide emissions.
 Standby plans for emergency episodes.
 Pre-construction permit.
 New Stationary Sources

WV Code § 22-5-4 (a) (14) 45CSR30 45CSR34 45CSR40 40 C.F.R. 60, Subpart III 40 C.F.R. Part 61 40 C.F.R. 63, Subpart ZZZZ 40 C.F.R. 63, Subpart DDDDD 40 C.F.R. 80, Subpart I 40 C.F.R. Part 82, Subpart F State Only: 45CSR4	The Secretary can request any pertinent information such as annual emission inventory reporting. Operating permit requirement. Emission Standards of Hazardous Air Pollutants Control of Ozone Season Nitrogen Oxides Emissions Standards of performance for stationary compression ignition internal combustion engines. Asbestos inspection and removal National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines National Emission Standard for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters Regulation of Fuels and Fuel Additives for Motor Vehicle Diesel Fuel; Nonroad, Locomotive, and Marine Diesel Fuel Ozone depleting substances No objectionable odors.
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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>
R13-1567A	09/06/2002	
CO-R40-C-2016-30	01/04/2017	

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

This renewal Permit includes R30-03900001-2013 (1 of 5) MM02 for the replacement of the Fire water pump engine (FP#1) with a new engine. Since the most recent version of this permit, the following changes have been identified:

45 C.S.R. 40 – Control of Ozone Season Nitrogen Oxides Emissions

For Boiler #10 (00B-02), previous 45CSR40 contained CAIR NO_x Ozone Season Trading Program requirements. The rule has been replaced with Control of Ozone Season Nitrogen Oxides Emissions, effective July 1, 2016. In the previous permit, Appendix B contained the CAIR Permit Application. This has been replaced with the current CO-R40-C-2016-30 Consent Order signed January 4, 2017. Condition 5.1.7 requires the Permittee to comply with this consent order, including the emission limitations of 0.20 lb/MMBtu during the NO_x ozone season. Condition 5.4.2 provides the monitoring, recordkeeping, and reporting requirements. Deleted Condition 3.1.9 since this requirement does not exist in the new rule.

40 C.F.R. 63, Subpart ZZZZ - National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

The previous 2008 575 HP emergency Fire Water Pump (FP#1) has been replaced with a 2018 755 HP emergency Fire Water Pump. The following changes have been made to the Permit.

The year installed and design capacity in the Emission Units Table has been revised for the new fire water pump.

The requirement of 40CFR§63.6605 to remain in compliance and operate and maintain the Fire Water Pumps has been added to the Permit as Condition 6.1.7.

The requirements for electricity demand response from Conditions 6.1.1.(iii) and 6.1.2.(iii) have been removed as the Fire Water Pumps (FP#1) and (FP#4D) cannot supply electricity to the grid. Conditions 6.1.1 and 6.1.2 were the same, so those conditions have been combined as Condition 6.1.1 and the subsequent conditions were renumbered.

40CFR60, Subpart IIII - Standards of performance for stationary compression ignition internal combustion engines.

The previous 2008 575 HP emergency fire water pump (FP#1) has been replaced with a 2018 585 HP emergency fire water pump. The change in model year of the fire water pump changes the following:

- a) In Condition 6.1.2 (formerly Condition 6.1.3), the emission limits for NMHC + NO_x have been reduced from 10.5 g/KW-hr or 7.8 g/HP-hr to 6.4 g/KW-hr or 4.8 g/HP-hr. There is no CO limit for 2018 fire water pump engines. The PM emission limits have been reduced from 0.54 g/KW-hr or 0.40 g/HP-hr to 0.20 g/KW-hr or 0.15 g/HP-hr. The emission limits are from 40CFR§60.4205(c) and Table 4.
- b) The requirements of 40CFR§60.4211(c) have been added to require the Permittee to purchase a fire pump engine certified to meet the emission standards in Condition 6.1.2, as well as to install and configure the engine according to the manufacturer's specifications. This has been added as Condition 6.1.6.
- c) The requirements of 40CFR§60.4211(f) have been added as Condition 6.1.8 for fire water pump (FP#1). The fire water pump may be used without time limit in emergency situations. It may be operated in non-emergency situations for no more than 50 hours per year. It may operated for maintenance checks and readiness testing up to a maximum of 100 hours per calendar year.
- d) The requirements of 40CFR§60.4214(b) have been added to Condition 6.4.1 for fire water pump (FP#1). The Permittee is not required to submit an initial notification as the engine is an emergency stationary internal combustion engine. If the fire water pump does not meet the standards applicable to non-emergency engines, the Permittee must keep records of the operation of the engine in emergency and non-emergency service.

40CFR63, Subpart DDDDD - National Emission Standard for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters

The four natural gas fired only boilers 6, 10, 14, and 15 are subject to the requirement of this Subpart. They are all natural gas fired boilers with over 10MMBTU/hr heat input and without oxygen trim systems. A one-time energy assessment has already been performed on all four boilers. The following requirements have been added to this renewal.

- a) 40CFR§§63.7540(a)(10) and 63.7500(a)(1)(a)(10) and Table 3(3) establish work practices for natural gas fired boilers over 10MMBTU/hr without an oxygen trim system. These requirements have been added as Condition 5.1.8.
- b) 40CFR§63.7500(a)(3) requires the Permittee to operate and maintain the boilers with good air pollution control practices. These requirements have been added as Condition 5.1.9.
- c) 40CFR§63.7555(a) requires the Permittee to keep records of initial notification, compliance reports, and performance evaluations. These requirements have been added as Condition 5.4.3.
- d) 40CFR§§63.7560(a), (b), and (c) specifies the format and retention of records. These requirements have been added as Condition 5.4.4.
- e) 40CFR§63.7540(b) requires the Permittee to report instances where they did not meet the work practice standards given in Condition 5.1.8. in the format specified in Condition 5.5.3. These requirements have been added as Condition 5.5.2.
- f) 40CFR§§63.7550(a), (b), and (c)(1) and 40CFR§63.7550(h)(3) provide the compliance report format and information requirements. These are given in Condition 5.5.3.

Other miscellaneous changes include:

- a) For the Wastewater Treatment Plant, the WAS Lime Silo and Dust Collector (00P-04) and Wastewater Collection Sump (00P-05) have been taken out of service and the Permittee has determined that the equipment will not be used again. The Sump 00P-05 has been removed from the equipment table at the request of the Permittee. However, the equipment remains on site and there are applicable requirements for the WAS Lime Silo. Conditions 4.2.1, 4.2.3, 4.3.1 have been changed to only be required if the WAS Lime Silo has been used in any calendar day in the month. Also, the design capacity for 00P-03 has been corrected. The South Waste Collection Sump (00P-09) has been added to the equipment table in the Permit. This equipment has no applicable requirements.
- b) For the Powerhouse, the pounds/hour listed in the Design Capacity in the Emissions Unit Table for Boilers 6, 10, 14, and 15 have been corrected.
- c) For the Gasoline Fuel Tank, the Emission Unit Description has been updated.
- d) Previous Condition 5.2.1 has been removed. The Rule 2 Monitoring Plan does not apply to SO₂ limitations, and since the four boilers all use natural gas, Rule 2 specifies under 45CSR§2-8.4.b that there is no monitoring or periodic testing required for the natural gas boilers at Belle.

Non-Applicability Determinations

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

40CFR60, Subpart IIII - Standards of performance for stationary compression ignition internal combustion engines.

The new emergency fire water pump (FP#1) is equipped with a diesel particulate filter. 40CFR§60.4209(b) requires the filter be installed with a backpressure monitor that notifies the Permittee when the high backpressure limit of the engine is approached in order to comply with the emission standards in 40CFR§60.4204. However, these emission standards are for non-emergency engines. Therefore this requirement does not apply to fire water pump (FP#1).

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 12, 2018
Ending Date: July 12, 2018

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

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Response to Comments (Statement of Basis)

Not applicable.