

Fact Sheet



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

Permit Number: **R30-03900693-2022**
Application Received: **August 13, 2021**
Plant Identification Number: **03900693**
Permittee: **Belle Chemical Company**
Facility Name: **Belle Plant**
Mailing Address: **901 W. DuPont Ave., Belle, WV 25015**

Physical Location: Belle, Kanawha County, West Virginia
UTM Coordinates: 451.90 km Easting • 4,232.60 km Northing • Zone 17
Directions: I-64 to Belle exit, Route 60 east to Belle exit, turn right and plant is on the left.

Facility Description

Belle Chemical Company produces specialty chemical intermediates. The process units included are methylamines [monomethylamine (MMA), dimethylamine (DMA), trimethylamine (TMA), and ammonia storage], and amides [dimethylformamide (DMF), monomethylformamide (MMF), and dimethylacetamide (DMAC)].

Emissions Summary

Plantwide Emissions Summary [Tons per Year]		
Regulated Pollutants	Potential Emissions	2021 Actual Emissions
Carbon Monoxide (CO)	19.30	3.66
Nitrogen Oxides (NO _x)	4.79	3.23
Particulate Matter (PM _{2.5})	0.02	<0.02
Particulate Matter (PM ₁₀)	0.02	<0.02

Plantwide Emissions Summary [Tons per Year]		
Regulated Pollutants	Potential Emissions	2021 Actual Emissions
Total Particulate Matter (TSP)	0.02	<0.02
Sulfur Dioxide (SO ₂)	0	0
Volatile Organic Compounds (VOC)	56.98	26.69
<i>PM₁₀ is a component of TSP.</i>		
Hazardous Air Pollutants	Potential Emissions	2021 Actual Emissions
DMF	2.91	2.07
Methanol	6.66	4.15

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

Title V Program Applicability Basis

Belle Chemical Company's Belle Plant is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30. The facility is subject to 40 C.F.R. 63, Subparts F, G, H, and EEEE.

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.
	45CSR11	Standby plans for emergency episodes.
	45CSR13	Preconstruction permits for minor sources.
	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 Hazardous Air Pollutants.
	40 C.F.R. Part 61	Asbestos inspection and removal
	40 C.F.R. 63, Subparts F, G, H	Hazardous Organic NESHAP (HON)
	40 C.F.R. Part 63, Subpart EEEE	Organic Liquids Distribution (OLD)
	40 C.F.R. Part 82, Subpart F	MACT. Ozone depleting substances
State Only:	45CSR4	No objectionable odors.
	45CSR§21-37	Leaks from Synthetic Organic Chemical, Polymer, and Resin Manufacturing Equipment.
	45CSR§21-40	Control of VOC Emissions

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>)
R13-3230C	September 15, 2021	NA

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

This Permit renewal incorporates R30-03900693-2017 MM02.

This modification was to incorporate changes done under R13-3230C. These changes include changing the service of the S-102 tank (Emission Unit ID: DMF32) to store both methanol overheads and dimethylformamide. It also added a condition to control the tank when storing methanol, but not when storing DMF. The tank is subject to the HON requirements when storing methanol and is a Group 1 storage vessel and must be controlled. This change was reflected in the Emission Units Table as Emissions Unit ID: DMF32 now has "None³" as its control device to denote the conditional controls and an annotation was added describing this to the bottom of the table.

There were changes to 40 C.F.R. 63 Subpart EEEE on July 7, 2020; however, none of these changes affected the applicable requirements of this facility.

Changes made during this renewal are as follows:

- **Section 1.0**
 - The permittee requested several updates to the equipment table in the Title V renewal application, and those have been incorporated into the permit. Emission Unit IDs AM07, AM08, AM13, AM20, AM21, AM22, AM23, AM24, AM55, AM83, AM84, DMF01, DMF18, DMF19, and DMAC01, DMAC05 were all replaced in kind (RIK).
 - Tank AM55 does not store a volatile organic compound; therefore, it is not subject to 40 C.F.R. 60 Subpart Kb.
 - Tank DMAC01 stores a volatile organic compound; however, the tank has a storage capacity greater than 75 cubic meters but less than 151 cubic meters. The tank stores a liquid with a maximum true vapor pressure less than 15.0 kPa. According to 40 C.F.R. §60.110b(b) this tank is not subject to 40 C.F.R. 60 Subpart Kb.

- AM22's replacement in kind is subject to the same applicable requirements as the previous piece of equipment.
 - Tank AM83's replacement in kind is subject to the same requirements and no change is required. Permit Determination PD22-059 was issued confirming that a Rule 13 permit would not be needed in order to make this change.
 - Tank DMF01's replacement in kind is subject to the same requirements and no change is required. Permit Determination PD22-060 was issued confirming that a Rule 13 permit would not be needed in order to make this change.
 - Emission Units AM07, AM08, AM20, AM21, AM23, AM24, AM84, DMAC05, DMF18, and DMF19 did not have any applicable requirements in the Title V permit. Replacement of this equipment did not trigger any new applicable requirements
 - The DMF 25 product cooler was incorrectly shown as routed to a control device previously, and this has been fixed as part of this renewal. There are no PTE impacts from this change.
 - The permittee requested that the Emission Point ID for DMF26 be updated from 421.004 to 402.001.
 - The facility requested the addition of AM99, AM100, and DMAC22 since the equipment was not previously provided in permit applications. These equipment pieces have no increase to facility PTE and have no applicable requirements.
 - AM99 is a No. 2 distillation column routed to control device AMCD01
 - AM100 is an amines tank that is routed to control device AMCD01; and
 - DMAC22 is a product cooler (routed to Tank 14, 16, or 35)
 - AM82, DMF29, DMF32, and DMF37 were named differently in the R13 and Title V permits. The new condition added in R13-3230C referenced DMF32 as "Storage Vessel S-102", so all these Emission Unit Descriptions were changed to reflect the Emission Unit Table in R13-3230C since they were all previously described in the Title V Emissions Unit Table as "Tank".
 - Tank DMF28 was marked Out of Service per notification of update email sent from Michael Hodge on 10/13/2021
 - The installation years for DMF03, DMF04, DMF17, DMF21, and DMF22 were updated since the equipment has been replaced. The new equipment does not trigger any new applicable requirements, nor does it change facility PTE.
- **Section 5.0**
 - Condition 4.1.3 was added to R13-3230C and is incorporated into the Title V permit as condition 5.1.12.

Non-Applicability Determinations

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

None

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 3, 2022

Ending Date: July 5, 2022

Point of Contact

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

Nikki Moats
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: 304/926-0499 ext. 41282
Nikki.b.moats@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)

None.