

Fact Sheet



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

Permit Number: **R30-03900734-2022**
Application Received: **November 9, 2021**
Plant Identification Number: **039-00734**
Permittee: **MC (US) 3 LLC**
Facility Name: **Institute Facility-Glutaraldehyde Plant**
Mailing Address: **P.O. Box 519, Institute, WV 25112**

Physical Location: Institute, Kanawha County, West Virginia
UTM Coordinates: 432.189 km Easting • 4248.754 km Northing • Zone 17
Directions: From Charleston take I-64 west toward Huntington. Turn right at Institute Exit. Proceed west approximately 0.5 miles on Route 25. The facility is located on the left.

Facility Description

Glutaraldehyde Plant Process Description:

Glutaraldehyde is produced by a reaction of methoxydihydropyran (MDP) with water in a reaction system. The reaction system effluent is pressured to a recovery system where glutaraldehyde is separated from methanol, a co-product of the reaction. Methanol and glutaraldehyde are recovered from the refining system. Glutaraldehyde is processed into different product grades in blend tanks. Various grades of glutaraldehyde are shipped via tank truck, tote tanks, drums and other small containers.

Emissions from the process are almost entirely methanol or water. Process emission points include the reaction and refining systems. Vents from the process equipment are routed to a flare. Storage tanks vent directly to the atmosphere. Except for methanol, glutaraldehyde product loading activities vent to the atmosphere. Emissions during loading of methanol vent to the flare. SIC 2869

Emissions Summary

Emissions Summary [Tons per Year]		
Regulated Pollutants	Glutaraldehyde Plant Potential Emissions	2021 Glutaraldehyde Plant Actual Emissions
Carbon Monoxide (CO)	1.40	0.39
Nitrogen Oxides (NO _x)	0.30	0.09
Particulate Matter (PM _{2.5})	0.01	<0.01
Particulate Matter (PM ₁₀)	0.01	<0.01
Total Particulate Matter (TSP)	0.10	<0.01
Sulfur Dioxide (SO ₂)	0.01	<0.01
Volatile Organic Compounds (VOC)	15.00	6.11
<i>PM₁₀ is a component of TSP.</i>		
Hazardous Air Pollutants	Glutaraldehyde Plant Potential Emissions	2021 Glutaraldehyde Plant Actual Emissions
Methanol	5.00	1.76

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

Title V Program Applicability Basis

Based on the potential to emit from the Title V renewal application for the Institute Facility, MC (US) 3 LLC does not have a potential to emit for any criteria pollutant over 100 tons per year, any single HAP over 10 tons per year, or any combination of HAPs over 25 tons per year. The source will remain a Title V source on the basis of once in always in until such time the permittee requests review for removal from the Title V program and approval is granted by the Secretary. The facility remains subject to 40 CFR 63 Subpart F, G, and H.

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.
	45CSR7	Particulate matter and opacity limits for manufacturing sources.
	45CSR11	Standby plans for emergency episodes.
	45CSR13	Permit for construction, modification, relocation and operations of stationary sources of air pollutants.

	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. 68	Chemical Accident Prevention Provisions
	40 C.F.R. Part 82, Subpart F	Ozone depleting substances
State Only:	45CSR4	No objectionable odors.
	45CSR§21-37 and 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>)
R13-3412	10/29/2018	

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 have been made to the most recent version of this Permit:

General Changes:

Emission Unit ID L2D Building B260 was deleted from section 1.0 Emission Units table. This unit has ceased operation and all packaging has been combined in Emission Unit L2D Building B131.

Non-Applicability Determinations

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

40CFR64 Compliance Assurance Monitoring (CAM)

There has not been the addition of any pollutant-specific emission units that have potential pre-control device emissions of a regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source.

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: September 13, 2022
Ending Date: October 13, 2022

Point of Contact

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

Jonathan Carney
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
304/926-0499 ext. 41247
Jonathan.W.Carney@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)

The permittee commented that changes needed to be made to addresses and phone number.

- On page 2 of the permit, the PO Box number was changed from 1006 to 519.
- On page 2 of the permit, the telephone number was changed to (304) 451-7590.
- On page 1 of the Fact Sheet, the PO Box number was changed from 1006 to 519.