

Control Device ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
CD24A	EP24	McGill Air Clean MCT 30.0 Regentive Thermal Oxidizer Destruction Efficiency: 95 % for VOC	2004		
CD24B	EP24	Water Venturi Scrubbers Manufacturer: Fisher-Klosterman, Inc.			
CD25A	FP23	Dust Collectector (cyclone) -Device vents to CD25Ab	2017	NA	
CD25B		Bag filter dust collector			
CD25Ab	FP23	Secondary dust collector (cartridge filter)	2017	NA	

1.2. Active R13, R14, and R19 Permits

The underlying authority for any conditions from R13, R14, and/or R19 permits contained in this operating permit is cited using the original permit number (e.g. R13-1234). The current applicable version of such permit(s) is listed below:

Permit Number	Date of Issuance
R14-0015M R14-0015N	September 20, 2017 April 18, 2019

The permittee shall select, and install the control devices for Day Bins ES11a and ES11b that have a manufacturer's removal efficiency of no less than 99.9% for filterable PM.

[45CSR14, R14-0015, 5.1.1.]

- 4.1.2 Emission of PM₁₀, and PM_{2.5} from Emission Points EP11a and EP11b shall not exceed 0.016 tons per year from each point. Compliance is satisfied with these limits through maintaining the respective control device and receiving raw materials into bins ES11a and ES11b at a total raw material throughput for both bins of no more than 184 tons per day and 64,240 tons per rolling 12-month total.

[45CSR14, R14-0015, 5.1.2.]

- 4.1.3. No person shall cause, suffer, allow or permit visible emissions from any storage structure(s) associated with any manufacturing process(es) that pursuant to 45CSR§7-5.1. (See permit condition 3.1.13.) is required to have a full enclosure and be equipped with a particulate matter control device.

[45CSR§7-3.7.] (ES1A, ES1B, ES1C, ES1D, ES1E, ES1F, ES1G, ES1H, ES1I, ES1J, ES1K, ES12A, ES22A, ES12B, ES12D, ES12Db, ES11a, ES11b, ES1L, ES1M, and ES1N)

4.2 Monitoring Requirements

- 4.2.1. Reserved.

4.3 Testing Requirements

- 4.3.1. Reserved.

4.4 Recordkeeping Requirements

- 4.4.1. The permittee shall maintain daily and rolling 12-month total records of the amount of raw material received into storage bins ES11a and ES11b for the purpose of demonstrating compliance with Condition 4.1.2. Such records shall be maintained in accordance with Condition 3.4.2.

[45CSR14, R14-0015, 5.2.3.]

- 4.4.2. At least once per month, the permittee shall ~~take visual observations in the manner required for~~ [conduct a Method 22 "like" observation](#) for at least 2 minutes to verify the control devices CD11a and CD11b are operating properly. The indicator of proper operation is no visible emissions from Emission Points EP11a and EP11b respectively. Should visible emissions be observed, the permittee shall take corrective action to restore the control device back to acceptable operating condition within 48 hours of the observation. Such records of the observations and corrective actions shall be maintained in accordance with Condition 3.4.2.

[45CSR14, R14-0015, 5.2.4.]

4.5 Reporting Requirements

- 4.5.1. Reserved.

4.6 Compliance Plan

- 4.6.1. There is no compliance plan since a responsible official certified compliance with all requirements in the renewal application.

5.0 Melting & Refining Line #1 (Group 002) and emission unit IDs ES12C, ES12E, CD13A, CD13B, CD12B, CD12Bb (backup) – Emission Point I.D. EP12 and EP13 and Melting & Refining Line #2 (Group 003) and emission unit IDs ES22, CD22B – Emission Point I.D. EP23]

5.1. Limitations and Standards

5.1.1. Emissions from the 2nd line shall not exceed the following limits with respect to the corresponding emission point and pollutant shall apply at times:

Emission Limits for the 2nd Line									
Emission Unit	Emission Point	CO lb/TPG	NO_x lb/TPG	SO₂ lb/TPG	PM² lb/TPG	PM₁₀¹ lb/TPG	PM_{2.5}¹ lb/TPG	VOC* lb/TPG	NH₃ lb/TPG
ES22	EP23	0.52	3.00	0.78 0.68	0.25	0.25	0.25	0.20	
Total	EP23	1.64	3.21	0.81 0.71	2.92	3.58	3.58	1.21	4.29
ES22E, ES24A, ES24B	EP23/EP24	2.34	0.80	0.05 0.16	3.45	4.31	4.31	0.87 1.40	4.73
Total	EP24	1.22	0.59	0.03 0.13	0.88	1.10	1.10	0.39	0.44

1 – The limit includes the corresponding filterable portion and condensable particulate matter fraction.

2 – These limits satisfy the allowable under 45CSR§7-3.1. and the standard in 40 C.F.R. §60.682.

lb/TGP - pounds of pollutant per ton of glass pulled.

* - VOC emissions shall not include methane and ethane.

[45CSR14, R14-0015, 4.1.2.c.]

5.1.2. Exhaust from the gas oxygen glass-melting furnace, which includes the canal and forehearth, shall be vented into a closed vent system that routes this stream directly to the control device identified baghouses CD22B at all times when the furnace is operating except during startup operations or when the melter is drained of molten glass but is operated to maintain temperature to perform maintenance on CD22B:

- i. The startup operations shall begin when any raw materials are added and reaches 50 percent of its typical operating temperature. Startup ends when molten glass begins to flow from the wool fiberglass glass-melting furnace.
- ii. Only during startup operations or when the melter is completely drained of molten glass to allow for maintenance on control device CD22B, the permittee may by-pass control device CD22B.
- iii. During startup, the permittee shall only use natural gas.
- iv. The permittee shall install and maintain a system that indicates and records when Control Device CD22B is by-passed. Such recording system shall be integrated with the data system for the glass pull rate system.

[45CSR14, R14-0015, 4.1.2.e.]