

COMPLIANCE ASSURANCE MONITORING PLAN

Lacks Enterprises, Inc.

Kraft Plater

November 2024

I. BACKGROUND

A. Emission Unit

Description: One electroless copper tank controlled by a packed bed scrubber system with mist eliminators

Identification: EUELECTROLESSCU

Facility: Kraft Plater
5675 Kraft Ave. SE
Grand Rapids, MI 49512

B. Applicable Regulation, Emission Unit, Monitoring Requirements

Renewable Operating Permit No.: MI-ROP-N7374-2020

Formaldehyde Emission Limit: 1.1 lbs. per hour
Methanol Emission Limit: 9.0 lbs. per hour
Sodium Hydroxide Emission Limit: 0.22 lbs. per hour

Monitoring requirements: Pressure drop across the scrubber
Water flow to the scrubber

C. Control Technology

Viron packed bed scrubber with mist eliminator and a design capacity of 30,000 CFM.

Formaldehyde controlled emission rate: 1.1 lbs. per hour.
Methanol controlled emission rate: 9.0 lbs. per hour.
Sodium hydroxide controlled emission rate: 0.22 lbs. per hour.

D. Description of Applicability

The electroless copper emission unit located at the Kraft Plating facility has controlled emissions and a federally enforceable emission limit. Pre-control emissions of methanol are over the major source threshold and controlled emissions are over the major source threshold for HAPs and therefore EUELECTROLESSCU is subject to CAM.

II. MONITORING APPROACH

	Pressure Drop
A. Indicator	Pressure drop across the scrubber will be monitored continuously by the ePlate system and manually recorded by lab personnel daily.
B. Indicator Range	An excursion is defined as a pressure drop less than 0.2-inch water column (wc) or greater than 1.5-inch wc. Excursions trigger an audible alarm and an inspection to determine cause. Shut down of the system occurs if the scrubber is determined to be malfunctioning. An EAM work order is then generated.
C. Bypass of Control	None.

III. PERFORMANCE CRITERIA

	Pressure Drop
Data Representatives	Pressure drop sensors located across the scrubber. Magnehelic gauges are located inside of the facility. The gauges have a minimum accuracy of +/- 3%.
Verification of Operational Status	An audible alarm will sound in the facility and be recorded in the ePlate alarm log if pressure drop is out of range or not operational during production.
QA/QC Practices and Criteria	On a weekly basis, pressure drop recorded from the ePlate system and the magnehelic are compared to verify they are within 10% and do not need additional calibration. On an annual basis the pressure gauge is inspected and calibrated.
Monitoring Frequency	Pressure drop is monitored continuously by the ePlate system.
Data Collection Procedure	Pressure drop is recorded continuously in the ePlate system. Pressure drop is manually recorded on a daily basis and logged in the Plate Viewer program.
Averaging period	NA

IV. Justification

A. Rationale for Selection of Performance Indicator

Pressure drop was selected as a performance indicator because it is established by the manufacturer and is indicative of good operation and maintenance of the packed bed scrubber. Monitoring pressure drop provides a means of detecting a change in operation that could lead to a malfunction or an increase in emissions. An increase in pressure drop can indicate that the packing is damaged or needs to be cleaned or replaced. A decrease in pressure drop may indicate a lack of water flow.

B. Rationale for Selection of Indicator Range

The indicator range chosen for the packed bed scrubber pressure drop is 0.2 – 1.5 inch wc. This range is determined to be appropriate by the scrubber manufacturer. An excursion is recorded by the automated alarm system and triggers an inspection, corrective action, and reporting requirement. Periodic performance testing verifies that the indicator range continues to be appropriate for controlling emission below applicable limits.

C. Performance Test

Periodic performance tests to determine emissions from the scrubber are required by the ROP to be conducted at least once every 48 months. The next performance test will be conducted on or before April 9, 2025.