

COMPLIANCE ASSURANCE MONITORING PLAN

Baghouse for Particulate Material (PM) Control AAR Mobility Systems

I. Background

A. Emission Unit

Description: Baghouse used to control emissions from Balsa Core and Wood Room.

Identification: Baghouse

Facility: AAR Mobility Systems, 201 Haynes Street, Cadillac, MI 49601

B. Applicable Regulation and Emission Limit

Regulation: Permit to Install 4-09

Emissions Limit (PM):

	Pollutant	Equipment	Limit	Time Period	Testing/ Monitoring Method	Applicable Requirements
1.	PM	Each baghouse/cyclone exhaust of the FGParticulates	0.1 lbs per 1000 lbs of exhaust gases*	Test Protocol	General Condition No. 13, Conditions V.1 and VI.1	R 336.1331
2.	PM-10	EULMS (Cyclone)	0.6 Pounds Per Hour	Test Protocol	General Condition No. 13, Conditions V.1 and VI.1	R 336.2803, R 336.2804, 40 CFR 52.21 Subparts (c) & (d)
3.	PM-10	EUWOODROOM/ EUBalsaCore (Baghouse)	6.3 Pounds Per Hour	Test Protocol	General Condition No. 13, Conditions V.1 and VI.1	R 336.2803, R 336.2804, 40 CFR 52.21 Subparts (c) & (d)
* Calculated on a dry gas basis.						

II. Monitoring Requirements:

TESTING/SAMPLING

Records shall be maintained on file for a period of five years.

1. The permittee shall perform and document non-certified visible emissions readings on a weekly basis, when the equipment is operating, and record the following information: **(R 336.1301, R 336.1303, R 336.1910, R 336.2810, 40 CFR 52.21(j), 40 CFR 60.42a(b))**
 - a. The color of the emissions.
 - b. Whether the visible emissions are representative of normal operations.
 - c. If not normal, the cause of the abnormal emissions.

- d. The duration of the abnormal emissions.
- e. The corrective actions taken to resolve the abnormal emissions.

MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years.

1. The permittee shall monitor and record the differential pressure across a baghouse and a cyclone on a daily basis, whenever the equipment is operating. **(R 336.1910)**

a. Control Technology

One baghouse and one cyclone collector

C. Control Technology

Baghouse / Cyclone

D. CAM Rule Subjectivity

The emission units use a control device to achieve compliance with an emission limitation. The emission units have potential pre-controlled emissions which are in excess of the major source threshold amount for the applicable pollutant

The key element of the monitoring approach for baghouse/cyclone is presented in the following table. The selected indicators of performance are differential pressure and visible emissions. The differential pressure is measured continuously while the baghouse/cyclone is in operation by a magnahelic gauge and recorded on a daily basis when the baghouse is operating. Noncertified visible emissions readings are performed on a weekly basis when the equipment is operating and recorded manually.

1. Indicator	Baghouse/cyclone differential pressure	VE
Measurement Approach	The differential pressure is measured continuously while the baghouse/cyclone is in operation by a magnahelic gauge	VE from the baghouse/cyclone exhaust will be monitored weekly during routine maximum operating conditions using a VE/No VE check.
2. Indicator Range	An excursion has occurred when the differential pressure in the baghouse drops below 2 or raises above 2.5, in the cyclone drops below 2 or rises above 6.	An excursion has occurred when visible emissions are present or not representative of normal operations. Excursions trigger an inspection and corrective action.
3. Performance Criteria A. Data Representativeness	The baghouse/cyclone differential pressure is measured using a magnahelic gauge with pressure taps located at the baghouse inlet and outlet. The minimum acceptable accuracy of the gauge is ± 0.25 inches of water.	Visible emissions are read at the baghouse/cyclone exhaust.
B. Verification of Operational Status	N/A	N/A
C. Quality Assurance and Control	Maintain and operate	The observer will be familiar with

Practices	instrumentation using procedures that take into account manufacturer's specifications.	baghouse/cyclone operations and visible emissions during normal operations.
D. Monitoring Frequency	Differential pressure is monitored continuously, when the baghouse/cyclone is in operation.	A VE observation is performed weekly.
Data Collection Procedure	The pressure drop is documented and manually record weekly when baghouse/cyclone is operating.	The VE observation is documented by the observer and manually recorded weekly
Averaging Period	Hourly	N/A

VE visible emissions

N/A not applicable

III. Justification

A. Rationale for Selection of Performance Indicators

In general, baghouses & cyclones are designed to operate at a relatively constant differential pressure. Monitoring differential pressure provides a means of detecting a change in operation that could lead to an increase in emissions. A differential pressure across the baghouse/cyclone also serves to indicate that there is airflow through the control device.

Visible emissions were selected as a performance indicator because they are indicative of good operation and maintenance of the baghouse/cyclone. When the baghouse/cyclone is operating properly, there will be no visible emissions from the exhaust. Any increase in visible emissions indicates reduced performance of a particulate control device; therefore, the presence of visible emissions is used as a performance indicator.

B. Rationale for Selection of Indicator Ranges

The indicator range chosen for the baghouse differential pressure is less than 2 inches of water or greater than 2.5 inches of water or in the cyclone drops below 2 or rises above 6. An excursion triggers a restart, an inspection, and associated corrective action. An increase in differential pressure can indicate that the cleaning cycle is not frequent enough, cleaning equipment is damaged, the bags are becoming inefficient, or the airflow has increased. A decrease in differential pressure may indicate broken or loose bags, but this is also indicated by the presence of visible emissions.

The selected indicator range is the presence of no visible emissions. When an excursion occurs, corrective action will be initiated, beginning with an evaluation of the occurrence to determine the action required to correct the situation. All excursions will be documented and reported. An indicator range of no visible emissions was selected because: (1) an increase in visible emissions is indicative of an increase in particulate emissions; and (2) a monitoring technique which does not require a Method 9 certified observer is desired.

C. Performance Test

The baghouse/cyclone pressure drop and visible emissions testing are indicators that the baghouse/cyclone filters may need to be replaced in order to prevent particulate matter emissions in excess of the applicable particulate limits.

