

Compliance Assurance Monitoring (CAM) Plan CWC Textron

I. BACKGROUND

Emission Unit

Description: Knockoff operation #227, Spiral Elevator #228 and Rocker Barrel Blast
Identification: EU-MP-RBB
Pollution Control Equipment: Dust Collector Unit #1, Dust Collector Unit #13, Dust Collector Unit #6
Facility: CWC Textron
1085 West Sherman Blvd
Muskegon, MI 49441-3588

Applicable Regulation, Emission Limit, Monitoring Requirements

Renewable Operating Permit No: MI-ROP-B1909-2019a

Emission Limits

Particulate Matter: 0.01 lbs per 1,000 lbs of exhaust gases. Rule 336.1331 (1)(c)

Opacity:

10% opacity based on 6-minute average, Rule 1301 (1)(c)

Monitoring Requirements:

A non-certified visual emissions (Opacity) observation will be conducted daily on days of production.

Record the static pressure drop across the fabric filter dust collectors once per day.

Record the reading from the particle sensors on each of the fabric filter dust collectors once per day.

Control Technology

Pre-control potential emissions for PM are more than 100 tons annually. The efficiency rate for the fabric filter dust collectors units #1, #6 and #13 is over 99%.

II. MONITORING APPROACH

Indicator

Installed static pressure drop monitors with readings taken once per day

Installed particle sensor system indicator reading recorded once per day

A non-certified visual emissions (Opacity) observation will be conducted daily on days of operation.

Indicator Range

An excursion is defined as excessive opacity for a duration exceeding two hours or if the pressure drop across the dust collectors deviate from their normal ranges (DC#1 7"-12", DC#6 7" - 12" and DC#13 8"-12") or if particle sensor readings deviate from the limits established within the preventative maintenance plan.

III. PERFORMANCE CRITERIA

Data Representativeness Measurements are made each day of production

Verification of Operational
Status Calibration of pressure gauges

QA/QC Practices and Criteria Routine preventative maintenance

Monitoring Frequency Each day of production

Data Collection Procedure Measurements are made at dust collector #1, #6 and #13 and are recorded daily
on the written daily environmental checklist form.

IV. JUSTIFICATION

Rationale for Selection of Performance Indicator

Opacity was selected as a performance indicator of good operation and maintenance of the dust collection system.

When the static pressure drop and particle sensors are all operating within the required ranges, there will be zero or minimal opacity. However, opacity excursions do not necessarily represent PM emission violations and are usually associated with startup and shutdown procedures.

The selected ranges of the monitoring systems have historically indicated good system performance and particulate control.

Compliance Assurance Monitoring (CAM) Plan CWC Textron

I. BACKGROUND

Emission Unit

Description: ACS sand system which controls emissions from the sand cooler, sand tower, sand muller, the sand basement and elevators #18 and #23.

Identification: EU-ACS-SAND

Pollution Control Equipment: Dust Collector Unit #19

Facility: CWC Textron
1085 West Sherman Blvd
Muskegon, MI 49441-3588

Applicable Regulation, Emission Limit, Monitoring Requirements

Renewable Operating Permit No: MI-ROP-B1909-2019a

Emission Limits

Particulate Matter: 0.10 lbs per 1,000 lbs of exhaust gases. Rule 336.1331 (1)(a)

Opacity: 20% opacity based on 6-minute average, except for one 6 minute average per hour of not more than 27% opacity, Rule 301

Monitoring Requirements:

A non-certified visual emissions (Opacity) observation will be conducted daily on days of production.

Record the static pressure drop across the fabric filter dust collectors once per day.

Control Technology

Pre-control potential emissions for PM are more than 100 tons annually. The efficiency rate for the fabric filter dust collector unit #19 is over 99%.

II. MONITORING APPROACH

Indicator: Installed static pressure drop monitors with readings taken once per day

A non-certified visual emissions (Opacity) observation will be conducted daily on days of operation.

Indicator Range: An excursion is defined as excessive opacity for a duration exceeding two hours or if the pressure drop across the dust collector deviates from its normal range of 3"- 7".

III. PERFORMANCE CRITERIA

Data Representativeness: Measurements are made each day of production

Verification of Operational Status Calibration of pressure gauges

QA/QC Practices and Criteria Routine preventative maintenance

Monitoring Frequency Each day of production

Data Collection Procedure Measurements are made at dust collector #19 and are recorded daily on the written daily environmental checklist form.

IV. JUSTIFICATION

Rationale for Selection of Performance Indicator

Opacity was selected as a performance indicator of good operation and maintenance of the dust collection system.

When the static pressure drop is operating within the required ranges, there will be zero to minimal opacity. However, opacity excursions do not necessarily represent PM emission violations and are usually associated with startup and shutdown procedures.

The selected ranges of the monitoring systems have historically indicated good system performance and particulate control.

Compliance Assurance Monitoring (CAM) Plan CWC Textron

I. BACKGROUND

Emission Unit

Description: Cupola #1, which is the West Cupola and includes charging operations.
Identification: EU-WEST-CUPOLA-1
Facility: CWC Textron
1085 West Sherman Blvd
Muskegon, MI 49441-3588

Applicable Regulation, Emission Limit, Monitoring Requirements

Renewable Operating Permit No: MI-ROP-B1909-2019a

Emission Limits

Particulate Matter: 0.15 lbs per 1,000 lbs of exhaust gases. Rule 336.1331 (1)(a)

Opacity: 20% opacity based on 6-minute average, except for one 6 minute average per hour of not more than 27% opacity, Rule 301

Monitoring Requirements:

A non-certified visual emissions (Opacity) observation will be conducted daily on days of production.

Record the pressure drop at the high energy venturi scrubber and demister separator system once per day.

Record the water pressure rate to the high energy venturi scrubber system once per day.

Control Technology

Pre-control potential emissions for PM are more than 100 tons annually. The efficiency rate for cupola emission scrubber system exceeds 99%.

II. MONITORING APPROACH

Indicator Installed high energy venturi scrubber and demister system with pressure drop monitors with readings taken once per day
Installed water line in the emission control system with a pressure indicator recorded once per day
A non-certified visual emissions (Opacity) observation will be conducted daily on days of production.

Indicator Range An excursion is defined as excessive opacity for a duration exceeding two hours, the pressure drop across the venturi deviates from it's normal range 30"- 56" psi during blasting, the demister pressure drop deviates from its' normal level or 0" - 3" psi

III. PERFORMANCE CRITERIA

Data Representativeness	Measurements are made each day of production
Verification of Operational Status	Calibration of pressure gauges
QA/QC Practices and Criteria	Routine preventative maintenance
Monitoring Frequency	Each day of production
Data Collection Procedure	Measurements are made at the venturi scrubber, demister separator and the emissions room and recorded daily on the written daily environmental checklist form.

IV. JUSTIFICATION

Rationale for Selection of Performance Indicator

Opacity was selected as a performance indicator of good operation and maintenance of the cupola emission system

When the venturi scrubber, demister separator and the water flow line are all operating within the required ranges, there will be minimal opacity. Particulate emission test results historically indicate that the emission rate is well below the particulate limit when the stack opacity is at or below 20%. However, opacity excursions do not necessarily represent PM emission violations and are usually associated with startup and shutdown procedures.

The selected ranges of the monitoring systems have historically indicated good system performance and particulate control.

Performance Testing

Stack testing for particulate conducted on September 12, 2017 indicates that when the performance indicators are within their ranges, particulate emissions are well below the emission requirements of the permit.

Compliance Assurance Monitoring (CAM) Plan CWC Textron

I. BACKGROUND

Emission Unit

Description: Casting shakeout and return sand system.
Identification: EU-SHAKEOUT
Pollution Control Equipment: Dust Collector Unit #6, Dust Collector Unit #17 and Dust Collector Unit #20
Facility: CWC Textron
1085 West Sherman Blvd
Muskegon, MI 49441-3588

Applicable Regulation, Emission Limit, Monitoring Requirements

Renewable Operating Permit No: MI-ROP-B1909-2019a

Emission Limits

Particulate Matter: 0.10 lbs per 1,000 lbs of exhaust gases. Rule 336.1331 (1)(a)

Opacity: 20% opacity based on 6-minute average, except for one 6 minute average per hour of not more than 27% opacity, Rule 301

Monitoring Requirements:

A non-certified visual emissions (Opacity) observation will be conducted daily on days of production.

Record the static pressure drop across the fabric filter dust collectors once per day.

Record the particle sensor reading at the fabric filter dust collector #6 once per day.

Control Technology

Pre-control potential emissions for PM are more than 100 tons annually. The efficiency rate for the fabric filter dust collectors unit #6, #17 and #20 is over 99%.

II. MONITORING APPROACH

Indicator: Installed static pressure drop monitors with readings taken once per day
Installed particle sensor reading taken once per day on Dust Collector Unit #6
A non-certified visual emissions (Opacity) observation will be conducted daily on days of operation.

Indicator Range: An excursion is defined as excessive opacity for a duration exceeding two hours or if the pressure drop across the dust collector units deviates from their normal ranges (DC#6 7" - 12", DC#17 7" - 12", DC#20 "3 - 7") or if DC#6 particle sensor readings deviate from the limits established within the preventative maintenance plan.

III. PERFORMANCE CRITERIA

Data Representativeness Measurements are made each day of production

Verification of Operational
Status Calibration of pressure gauges

QA/QC Practices and Criteria Routine preventative maintenance

Monitoring Frequency Each day of production

Data Collection Procedure Measurements are made at dust collector #6, dust collector #17 and dust collector #20 and are recorded daily on the written daily environmental checklist form.

IV. JUSTIFICATION

Rationale for Selection of Performance Indicator

Opacity was selected as a performance indicator of good operation and maintenance of the dust collection system.

When the static pressure drop is operating within the required ranges, and the particle sensor device on DC#6 has not deviated from its established limit, there will be zero to minimal opacity. However, opacity excursions do not necessarily represent PM emission violations and are usually associated with startup and shutdown procedures.

The selected ranges of the monitoring systems have historically indicated good system performance and particulate control.



ISO 14001 PROCEDURE MANUAL

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Primary Approval: EHS Manager
Secondary Approval: Integrated Supply Chain Manager
Secondary Approval: Operations Manager
Secondary Approval: Technology Manager

I Purpose

The purpose of this procedure is to provide for a system and instructions, and to assign responsibilities for a Fugitive Dust Control Program.

II Application

This procedure applies to the company's activities, products, and services that can interact with the environment; whether they are carried out or generated in-house, purchased or sub-contracted.

III Responsibility and Authority.

The EHS Manager is responsible for collecting and coordinating information regarding the fugitive dust control plan.

IV Procedure

1. CWC will establish and implement an internal set of guidelines for a Fugitive Dust Control Program.

VI Fugitive Dust Control Program

- A. The storage piles are created and maintained with a front-end loader. Care shall be exercised during this work to minimize the quantity of fugitive dust created.
 - B. There is one storage pile of foundry refuse sand located under the west end of the crane runway. The normal maximum size of this pile is 40 feet wide x 30 feet high x 40 feet long..
2. Other Refuse Sources
 - A. Slag from the desulfurizing operation will be collected in storage pile on east end of the crane way as it is generated. This material shall be loaded out to the landfill on a timely basis.



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- B. Bags of dust from dry collectors will be carefully placed in roll off hoppers to prevent spillage. Any spillage of this material will be cleaned up immediately.

3. Roads and Traffic Areas

- A. All paved roads will be swept on a weekly basis or as needed.
- B. All sand spillage on paved roads from refuse loading operations shall be removed as necessary.
- C. All dirt, sand, and other foreign material deposited on paved roads from vehicles from unpaved areas will be removed as necessary.
- D. All material spillage from incoming and outgoing delivery trucks on paved roads will be removed as necessary.

4. Loading Out of Refuse Material

- A. The free fall distance from the front-end loader into the trucks will be kept to a minimum.
- B. The front-end loader operator shall be directed to avoid overfilling the bucket of the loader to prevent spillage when transporting and loading materials onto trucks.

5. Inspection and Record Keeping

- A. The EHS Manager or a designate shall make a weekly inspection and maintain a record of these inspections and are documented on the daily environmental check sheet (811.001).
- B. Any deviations of this policy shall be documented and forwarded to the EHS Manager.

- ASSOCIATED DOCUMENTS:
 - *Daily Environmental Check Sheet (811.001)*