# AIR AND RADIATION ADMINISTRATION
# DRAFT PART 70 OPERATING PERMIT

## DOCKET # 24-510-1886 -A

**COMPANY**: Wheelabrator Baltimore LP

**LOCATION**: 1801 Annapolis Road
Baltimore, MD 21230

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# MARYLAND DEPARTMENT OF THE ENVIRONMENT
# AIR AND RADIATION ADMINISTRATION
# AIR QUALITY PERMITS PROGRAM
## TITLE V – PART 70 OPERATING PERMIT PROGRAM OVERVIEW

Title V of the Clean Air Act (amended) requires each state to implement a federally enforceable operating permit program for major sources of air pollution. This program, the Part 70 Permit Program, also known as the Title V Permit Program, is designed to provide a comprehensive administrative document (a Part 70 Operating Permit) that identifies all air emissions sources at a given facility and the federal air quality regulations applicable to those sources. The permit establishes the methodology by which the owner/operator will demonstrate compliance, and includes testing, monitoring, record-keeping, and reporting requirements for each emissions source.

A Part 70 Operating Permit does not authorize new construction, and does not add any new emissions limitations, standards, or work practices on an affected facility. There may, however, be additional testing, record keeping, monitoring, and reporting requirements. A Part 70 Operating Permit is a five-year renewable permit. A responsible official for each facility subject to a Part 70 Operating Permit is required to annually certify compliance with each applicable requirement for that facility.

When an application for a Part 70 Operating Permit is received, the Department will complete a technical review of the application and will prepare a draft Part 70 Operating Permit and Fact Sheet. The Fact Sheet will explain the basis and technical analysis used by the Department to develop the federally enforceable permit conditions, including the required testing, monitoring, record keeping, and reporting provisions for each emissions unit at the permitted facility. The Fact Sheet will also include a description of the facility operations and the current compliance status with applicable requirements. If there are any discrepancies between the Part 70 Operating Permit application and the draft permit, the Fact Sheet will contain a discussion of the inconsistencies and the final resolution.

**Public Participation Process**

The Part 70 Operating Permit Program provides the public, adjacent states, and EPA the opportunity to review and submit comments on draft permits. The public may also request a public hearing on the draft permit.

The purpose of a public hearing is to give interested parties the opportunity to submit comments for the record which are germane to the draft federally enforceable permit conditions. Comments made at the hearing, or in writing to the Department during the comment period, should address errors and deficiencies in the permit such as unidentified emissions units, incorrect or deficient regulation citation, deficient record keeping, monitoring, reporting or testing requirements and unresolved compliance issues. After the public comment period has closed, the Department will review the formal testimony as part of the final review and prepare a Response to Comments document which will be sent to the EPA along with the draft Part 70 Operating Permit and Fact Sheet.

Testimony on state-only requirements will be kept on file at the Department as part of the formal record, however, state-only rules and regulations are not federally enforceable, and therefore are not within the scope of the EPA review. The Department will keep a record of the identity of the commenters, their statements, a summary of the issues raised during the public comment period, and the Response to Comments document for at least five years.

**Citizen Petition to EPA to Object to Permit Issuance**

Interested parties may petition the EPA to object to the Part 70 Permit if the EPA has not already objected, within 60 days after the 45-day EPA review period has ended. The petition period will be posted on the EPA website. The EPA will only consider objections to the federally enforceable provisions of the draft permit which were raised with reasonable specificity during the public comment period, unless: (1) the petitioner demonstrates that it was impractical to raise the objections within the public comment period, or (2) the grounds for the objection arose after the comment period. If the EPA agrees with the petition, the Department will reopen, revise, or revoke the permit as determined.

**Applicant Objection to Permit Issuance and Recourse**

If the applicant objects to the federally enforceable permit conditions contained in the issued Part 70 Operating permit, the applicant has 15 days from receipt of the issued permit to request a contested case hearing. More information on that can be found in 40 CFR, Part 70, and COMAR 26.11.03.11.

**MARYLAND DEPARTMENT OF THE ENVIRONMENT**
**AIR AND RADIATION ADMINISTRATION**

**NOTICE OF PUBLIC HEARING AND**
**OPPORTUNITY TO SUBMIT WRITTEN COMMENTS**

Pursuant to regulations governing the control of air pollution in the State of Maryland, COMAR 26.11.03.07, the Maryland Department of the Environment (the Department) has prepared a draft renewal Title V – Part 70 Operating Permit for Wheelabrator Baltimore, L.P. The facility includes of three (3) large mass burn waterwall municipal waste combustors (MWC) each rated at 750 tons per day (TPD) with various emissions control equipment, three (3) lime storage silos equipped with a common bin vent filter, and one (1) activated carbon storage silo equipped with a bin vent bag filter.

The applicant is represented by:

Mr. Jim Robertson, Plant Manager
Wheelabrator Baltimore L.P.
1801 Annapolis Road
Baltimore, MD 21230

The Department has made a tentative determination that the renewal of the Title V - Part 70 Operating Permit can be issued. A final determination on issuance of the permit will only be made after review of all pertinent information presented at a public hearing or received via written comments during the comment period. Copies of the application, the draft Title V - Part 70 Operating Permit with conditions, the Fact Sheet and other supporting documents are available for public inspection on the Department website:

https://tinyurl.com/DraftTitleV

The issuance of this permit will be the subject of an in-person public hearing to be held at the Curtis Bay Recreation Center located at 1630 Filbert Street, Baltimore, MD 21226 on October 1, 2026 from 6:00 PM to 8:30 PM. You may also participate in the meeting virtually. Please register to attend using the following link:

https://forms.gle/xK9ki5oGeNMvovuk7

Registered attendees will receive instructions on how to join virtually using your computer or telephone.

Interested persons may make oral comments at the hearing. In lieu of oral statements during the hearing, written comments may be submitted to Ms. Shannon Heafey, Title V Coordinator, by email at shannon.heafey@maryland.gov, or by mail to Ms. Shannon Heafey, Air and Radiation Administration, 1800 Washington Boulevard, Suite 720, Baltimore, Maryland 21230-1720, no later than October 8, 2026.

Comments will be accepted by the Department if they raise issues of law or material fact regarding applicable requirements of Title V of the Clean Air Act, and/or regulations implementing the Title V Program in Maryland found in COMAR.

This hearing location is accessible to individuals with disabilities as defined under the Americans with Disabilities Act (ADA). Individuals who require reasonable accommodation or a language interpreter to participate in the hearing should contact the Department by email at mde.accommodations@maryland.gov or call 410-537-3152 (MD Relay TTY: 7-1-1) at least 5 business days in advance of the meeting.

Further information may be obtained by emailing or calling Ms. Shannon Heafey, Title V Coordinator, Air Quality Permits Program, Air and Radiation Administration at (410) 537-4433.

Christopher R. Hoagland, Director
Air and Radiation Administration

**WHEELABRATOR BALTIMORE, L.P.**
**1801 ANNAPOLIS ROAD**
**BALTIMORE, MD 21230**
**PERMIT NO. 24-510-1886**
**PART 70 OPERATING PERMIT FACT SHEET**

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## BACKGROUND

Wheelabrator Baltimore, L.P. (Wheelabrator or the "Company"), formerly known as Baltimore RESCO Company, L.P., operates a municipal solid waste resource recovery facility (SIC Code 4953). The facility consists of three (3) large mass burn waterwall municipal waste combustors (MWC) each rated at 750 tons per day (TPD) yielding a facility wide capacity of 2,250 TPD. The steam that is generated by the MWCs is either sold to a steam distribution system or used to produce electricity via an on-site steam turbine.

Combustion gases are exhausted through a stack (Emission Point EP1) that contains three flues, one for each of the three MWCs. Each MWC train is equipped with an advanced selective non-catalytic reduction (ASNCR) system to control NOx emissions; a "slaked lime" spray dryer absorber (SDA) system to control acid gas emissions; an activated carbon injection system for enhanced mercury and dioxin/furan control; and a pulse jet fabric filter (FF) to control particulate matter and metals from the exhaust stream. Each stack is equipped with a continuous opacity monitoring system (COM) and continuous emission monitoring systems (CEMS) for monitoring the carbon monoxide (CO), sulfur dioxide ($SO_2$), and nitrogen oxides (NOx) emissions, as well as an oxygen ($O_2$) and carbon dioxide ($CO_2$) monitors for monitoring the stack gas dilution. Additionally, $SO_2$ and $O_2$ CEMS were located upstream of control devices for determining percent reduction of $SO_2$.

Three wet scrubbers are used to control particulate matter from the ash handling areas. One wet scrubber controls particulate emissions from the ash handling area vent. The second wet scrubber is used to control particulate matter from the ash load out area vent. A third wet scrubber is used to control particulate emissions from the ash trommel area vent. All three wet scrubbers are operated on an as needed basis to ensure that particulate matter is controlled from ash handling areas.

Other registered equipment at this facility include three (3) lime storage silos equipped with a common bin vent filter, and one (1) activated carbon storage silo equipped with a bin vent bag filter. Both silos dispense their respective materials into a closed system that minimizes the potential for fugitive emissions. In addition, a ventilation fan with exhaust filter is installed in the ash building housing the main ash bunker. The fan is used in conjunction with intake louvers to draw fresh air into the ash building.

The ash handling areas, storage silos, and ash building ventilation fan have the potential to emit for particulate matter of less than 1 ton per year. Consequently,

for the purposes of the Company's Part 70 permit, these sources have been listed in the insignificant activities section of the permit.

The following table summarizes the actual emissions from Wheelabrator Baltimore, L.P. based on its Annual Emission Certification Reports:

**Table 1: Actual Emissions**

| Year | $NO_x$ (TPY) | $SO_x$ (TPY) | $PM_{10}$ (TPY) | CO (TPY) | VOC (TPY) | Total HAP (TPY) |
|---|---|---|---|---|---|---|
| 2020 | 882 | 288 | 10.9 | 72.6 | 2.10 | 120 |
| 2021 | 909 | 259 | 11.1 | 78.8 | 1.50 | 134 |
| 2022 | 672 | 192 | 12.5 | 65.7 | 0.49 | 93.9 |
| 2023 | 738 | 158 | 10.5 | 55.4 | 1.90 | 38.0 |
| 2024 | 642 | 94.2 | 4.21 | 64.9 | 0.11 | 143 |

The major source threshold for triggering Title V permitting requirements in Baltimore City is 25 tons for VOCs and NOx, 100 tons for the other criteria pollutants, 10 tons for any single hazardous air pollutant (HAP) and 25 tons for the aggregate of all HAP emissions. Since the NOx, $SO_2$ and HAP emissions are greater than the major source threshold, and the fact that the facility is a municipal waste combustor, the company is required to obtain a Title V- Part 70 Operating Permit under COMAR 26.11.03.01.

The Department received the Company's Part 70 renewal permit application for the Annapolis Road facility on October 18, 2023. The application was deemed by the Department to be administratively complete on October 28, 2023.

## Amendments to COMAR 26.11.08 – NOx RACT for Large Municipal Waste Combustors

Under Section 182 of the CAA, 42 U.S.C. §7511a, sources in ozone nonattainment areas classified as moderate and above are subject to RACT requirements. Therefore, the CAA requires MDE to review and revise RACT requirements in the Maryland SIP as necessary to achieve compliance with the ozone NAAQS. EPA defines RACT as the lowest emissions limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility. As part of Maryland's RACT review, MDE has determined that existing NOx RACT requirements should be updated for Large MWC's.

In reviewing existing NOx RACT requirements for adequacy, the Department considers technological advances, the stringency of the revised ozone standard

and whether new sources subject to RACT requirements are present in the nonattainment area. The Department must examine existing controls on major sources of NOx to determine whether additional controls are economical and technically feasible, and include any such controls in Maryland's RACT SIP, where appropriate.

Large MWCs in Maryland have demonstrated the ability to reduce NOx emissions by analyzing and optimizing their existing controls. In consideration of regional NOx RACT amendments, optimization studies, and upgrades performed by Maryland sources, the Department has concluded that Maryland's Large MWCs are capable of meeting more stringent NOx RACT requirements.

The amended NOx RACT requirements effective December 6, 2018, can be found under the State Only Enforceable Requirements section of this permit. The NOx RACT requirements pertaining to Large MWCs will be submitted to the U.S. Environmental Protection Agency (EPA) for approval as part of Maryland's SIP.

## GREENHOUSE GAS (GHG) EMISSIONS

Wheelabrator reported the following greenhouse gases (GHGs) related to Clean Air Act requirements: carbon dioxide, methane, and nitrous oxide. These GHGs originate almost entirely from the combustion of municipal solid waste. The facility has not triggered Prevention of Significant Deterioration (PSD) requirements for GHG emissions; therefore, there are no applicable GHG Clean Air Act requirements. However, Wheelabrator is a major source for GHGs (threshold: 100,000 TPY $CO_2e$) and the Permittee is required to quantify facility wide GHGs emissions and report them in accordance with Section 3 of the Part 70 permit.

The following table summarizes the actual emissions from Wheelabrator Baltimore L.P based on its Annual Emission Certification Reports:

**Table 3: Greenhouse Gases Emissions Summary**

| **GHG** | **Conversion factor** | **2022** tpy $CO_2e$ | **2023** tpy $CO_2e$ | **2024** tpy $CO_2e$ |
|---|---|---|---|---|
| Carbon dioxide $CO_2$ | 1 | 556,930 | 712,939 | 734,351 |
| Methane $CH_4$ | 25 | 3.03 | 1.79 | 1.90 |
| Nitrous Oxide $N_2O$ | 298 | 26.3 | 33.0 | 34.3 |
| Total GHG $CO_{2eq}$ | | 557,032 | 713,017 | 734,433 |

## EMISSION UNIT IDENTIFICATION

Wheelabrator Baltimore L.P. has identified the following emission units as being subject to Title V permitting requirements and having applicable requirements.

**Table 2: Emission Unit Identification**

| Emissions Unit Number | MDE - ARA Registration Number | Emissions Unit Name and Description | Date of Installation |
|---|---|---|---|
| EU - 1 | 510-1886-2-0255 | One (1) 750 TPD Wheelabrator-Frye mass burn waterwall municipal waste combustor equipped with an Advanced Selective Non-Catalytic Reduction (ASNCR) NOx control system; a "slaked lime" spray dryer absorber (SDA) system; a pulse jet fabric filter (FF); and an activated carbon injection system. Modified to replace the ESP with a pulse jet fabric filter (FF) and replace the existing Selective Non-Catalytic Reduction (SNCR) NOx control system with an Advanced Selective Non-Catalytic Reduction (ASNCR) $NO_X$ control system. | 1985 *Modified 2022* |
| EU - 2 | 510-1886-2-0256 | One (1) 750 TPD Wheelabrator-Frye mass burn waterwall municipal waste combustor equipped with an Advanced Selective Non-Catalytic Reduction (ASNCR) NOx control system; a "slaked lime" spray dryer absorber (SDA) system; a pulse jet fabric filter (FF); and an activated carbon injection system. Modified to replace the ESP with a pulse jet fabric filter (FF) and replace the existing Selective Non-Catalytic Reduction (SNCR) NOx control system with an Advanced Selective Non-Catalytic Reduction (ASNCR) $NO_X$ control system. | 1985 *Modified 2022* |
| EU - 3 | 510-1886-2-0257 | One (1) 750 TPD Wheelabrator-Frye mass burn waterwall municipal waste combustor equipped with an Advanced Selective Non-Catalytic Reduction | 1985 *Modified 2022* |

| | | | |
|---|---|---|---|
| | | (ASNCR) NOx control system; a "slaked lime" spray dryer absorber (SDA) system; a pulse jet fabric filter (FF); and an activated carbon injection system. Modified to replace the ESP with a pulse jet fabric filter (FF) and replace the existing Selective Non-Catalytic Reduction (SNCR) NOx control system with an Advanced Selective Non-Catalytic Reduction (ASNCR) $NO_X$ control system. | |

## AN OVERVIEW OF THE PART 70 PERMIT

The Fact Sheet is an informational document. If there are any discrepancies between the Fact Sheet and the Part 70 permit, the Part 70 permit is the enforceable document.

Section I of the Part 70 Permit contains a brief description of the facility and an inventory list of the emissions units for which applicable requirements are identified in Section IV of the permit.

Section II of the Part 70 Permit contains the general requirements that relate to administrative permit actions. This section includes the procedures for renewing, amending, reopening, and transferring permits, the relationship to permits to construct and approvals, and the general duty to provide information and to comply with all applicable requirements.

Section III of the Part 70 Permit contains the general requirements for testing, record keeping and reporting; and requirements that affect the facility as a whole, such as open burning, air pollution episodes, particulate matter from construction and demolition activities, asbestos provisions, ozone depleting substance provisions, general conformity, and acid rain permit. This section includes the requirement to report excess emissions and deviations, to submit an annual emissions certification report and an annual compliance certification report, and results of sampling and testing.

Section IV of the Part 70 Permit identifies the emissions standards, emissions limitations, operational limitations, and work practices applicable to each emissions unit located at the facility. For each standard, limitation, and work practice, the permit identifies the basis upon which the Permittee will demonstrate compliance. The basis will include testing, monitoring, record keeping, and

reporting requirements. The demonstration may include one or more of these methods.

Section V of the Part 70 Permit contains a list of insignificant activities. These activities emit very small quantities of regulated air pollutants and do not require a permit to construct or registration with the Department. For insignificant activities that are subject to a requirement under the Clean Air Act, the requirement is listed under the activity.

Section VI of the Part 70 Permit contains State-only enforceable requirements. Section VI identifies requirements that are not based on the Clean Air Act, but solely on Maryland air pollution regulations. These requirements generally relate to the prevention of nuisances and implementation of Maryland's Air Toxics Program.

## REGULATORY REVIEW/TECHNICAL REVIEW/COMPLIANCE METHODOLOGY

An initial Prevention of Significant Deterioration (PSD) approved in 1983 and amended in February 1986 was for the construction of an incinerator with a capacity of 740,000 tons of refuse per year.

In December 1995, the annual throughput capacity of the MWCs were revised to reflect the potential throughput based on the individual MWC units operating continuously at maximum capacity for 365 days per year. Thus, the aggregated maximum annual waste throughput was raised from 740,000 tons to 821,250 tons.

The Permittee is subject to the federal Emission Guidelines under 40 CFR part 60 subpart Cb *Emissions and Guidelines and Compliance Times for Large Municipal Waste Combustors that are constructed on or before September 20, 1994*. The EPA promulgated this subpart in accordance with Sections 111(d)/129 of the Clean Air Act Amendments of 1990, which required EPA to develop performance standards for new municipal waste combustors (MWCs) and emissions guidelines for existing MWCs. The State of Maryland had the responsibility of developing a State plan to implement the emission guidelines. The Maryland Department of the Environment implemented the Subpart Cb emission guidelines in the COMAR 26.11.08.08 regulations. All affected facilities were required to come into compliance with the requirements of the emission guidelines by December 19, 2000. COMAR 26.11.08.08 incorporates by reference certain paragraphs under New Source Performance Standards for large MWC, 40 CFR part 60, subpart Eb, but the facility is not directly subject to this regulation .

On May 10, 2006, the EPA promulgated revisions to Subparts Eb and Cb. The revisions to Subpart Cb include somewhat more stringent standards for five regulated pollutants: particulate matter (PM), cadmium (Cd), mercury (Hg), lead (Pb) and dioxin/furan. Additionally, minimum CEMs availability requirements were made more stringent. The amendment to Maryland Regulation COMAR 26.11.08.08 to incorporate the May 10, 2006 changes to Subpart Cb was adopted October 2007. The revised standards became effective on April 28, 2009.

On February 4, 2011, the Department issued a letter to Wheelabrator regarding a methodology for demonstrating compliance with certain PSD emission limits for nitrogen oxides (NOx), sulfur dioxide ($SO_2$) and carbon monoxide (CO). This letter was issued in response to an EPA Order which partially granted and partially denied a citizen petition for EPA to object to the issuance of the Title V operating permit for the Wheelabrator Baltimore, L.P. facility. The Department subsequently revised the averaging time for PSD limits for the emissions of NOx, SO2 and CO so that they would be equivalent to the basis for averaging times established in the original PSD permit issued in 1982. Specifically, the PSD permit states that compliance with the emissions limits will be determined based on the results of the average of three (3) to nine (9) stack test runs. The previously issued Part 70 permit set a 24-hour averaging time for NOx and CO and a 3-hour averaging time for $SO_2$ when compliance is demonstrated with the use of data collected by continuous emissions monitoring systems (COMS). The revised averaging time is set at 8 hours for all three pollutants.

In addition, the Department revised the permit by adding language to explain the methodology that Wheelabrator will use to convert concentration measurements in units of parts per million (ppm) into mass emissions rate of pounds per hour. Continuous emissions monitoring systems measure concentrations of air pollutants in a gas stream, while PSD emissions limits are expressed in pounds per hour. The revised permit provided the formula used for the conversion when CEM data is used to demonstrate compliance with the PSD limits.

**<u>Emissions Unit Number(s):</u> EU-1 thru EU-3, Municipal Waste Combustors**

Three (3) identical Wheelabrator-Frye 750 TPD mass burn waterwall municipal waste combustors, each rated at 750 tons per day. Each unit is equipped with the following air pollution control devices: an Advanced Selective Non-Catalytic Reduction (ASNCR) system for NOx removal; a “slaked lime” spray dryer absorber (SDA) system for acid gas removal; an activated carbon injection system for the removal of mercury and dioxins/furans; and a pulse jet fabric filter (FF) for control of particulate matter and metals in the flue gas.
(**MDE Registration No. 510-1886-2-0255, 2-0256, and 2-0257**)

## A. Emission Standards and General Requirements

1. The Permittee shall comply with the existing Large MWC emissions limits and operational standards found in Table 4 below. **[Reference: COMAR 26.11.08.08A(1)]**

2. The standards in COMAR 26.11.08.08A(2) apply at all times except during periods of startup, shutdown, or malfunction as provided in 40 CFR §60.58b(a). **[Reference: COMAR 26.11.08.08A(3)]**

    a. Duration of start-up, shutdown, or malfunction period are limited to 3 hours per occurrence, except for carbon monoxide, where the malfunction period may be extended to 15 hours when loss of boiler water level control (e.g., tube failure) or combustion air control (e.g. loss of combustion air fan, induced draft fan, combustion grate bar failure) is determined to be a malfunction; **[Reference: COMAR 26.11.08.08A(3), 40 CFR §60.58b(a)(1)(i) and (1)(iii)]**

    b. The start-up period commences when the facility begins the continuous burning of municipal solid waste and does not include any warm-up period when the facility is combusting a fossil fuel or any other auxiliary fuel, and no municipal waste is being combusted; **[Reference: COMAR 26.11.08.08A(3) and 40 CFR §60.58b(a)(1)(i)]**

    c. To allow for waste to be emptied from the throat of the feeding chute, the shutdown period shall begin 30 minutes after the chute to the loading hopper of the combustion train is closed. **[Reference: COMAR 26.11.02.02H]**

**Table 4**
**Emission Standards, General Requirements, and Stack Test Results**

| ***Pollutant/ Parameter*** | ***Emissions Standard for a Large MWC*** * Adjusted to 7 percent oxygen on dry basis. | ***Performance and Compliance Test Requirements*** | ***Results of stack tests or compliance demonstrations*** |
|---|---|---|---|
| Opacity | 10 percent opacity with Continuous Opacity Monitoring System (COMS) based on six-minute block averages. | EPA Reference Method 9 and COMS. Applicable test procedures and methods as specified in 40 CFR §60.58b(c); and quality assurance as specified in COMAR 26.11.31. | EPA Reference Method 9 and COMS. Based on the certified quarterly COM reports, there have been no reported violations over the past 5 years |
| Particulate Matter | 25 mg/dscm* (0.01093 gr/dscf)* | EPA Reference Method 5. Annual test, methods and procedures as specified in 40 CFR §60.58b(c). | Stack Test July 2024<br><br>Unit 1 – 0.0018 gr/dscf<br>Unit 2 – 0.0015 gr/dscf<br>Unit 3 – 0.0007 gr/dscf |
| $SO_2$ (Sulfur Dioxide) | 29 ppmv - 24 hr. geometric mean or 75 percent reduction, whichever is less restrictive* | CEMS. Applicable test procedures and methods as specified in 40 CFR §60.58b(e). | CEMS. Based on the certified quarterly CEM reports, there have been no reported violations over the past 5 years. |
| NOx (Oxides of Nitrogen) | 205 ppmv - 24 hr. arithmetic average. | CEMS. Applicable test procedures and methods as provided in 40 CFR §60.58b(h). | CEMS. Based on the certified quarterly CEM reports, there have been no reported violations over the past 5 years. |
| CO (Carbon Monoxide) | 100 ppmv - 4 hr. block avg.* | CEMS. Methods and procedures as specified in 40 CFR §60.58b(b) and 40 CFR §60.58b(i). | CEMS. Based on the certified quarterly CEM reports, there have been no reported violations over the past 5 years. |

**Table 4**
**Emission Standards, General Requirements, and Stack Test Results**

| ***Pollutant/ Parameter*** | ***Emissions Standard for a Large MWC*** * Adjusted to 7 percent oxygen on dry basis. | ***Performance and Compliance Test Requirements*** | ***Results of stack tests or compliance demonstrations*** |
|---|---|---|---|
| HCl (Hydrogen Chloride) | 29 ppmv* or at least 95 percent reduction whichever is less restrictive. | EPA Reference Method 26 or 26A. Annual test except as provided in 40 CFR §60.58b(f). Applicable test procedures and methods as provided in 40 CFR §60.58b(f). | Stack test July 2024<br>Unit 1 – 13.7 ppm<br>Unit 2 – 11.6 ppm<br>Unit 3 – 18.5 ppm |
| Dioxins /Furans | 35 ng/dscm* (total mass) | EPA Reference Method 23. Annual test except as provided in 40 CFR §60.58b(g) (5) (iii) and 40 CFR §60.38b (b). Applicable test procedures and methods as specified in 40 CFR §60.58b(g). | Stack test July 2024<br>Unit 1 – 0.5 ng/dscm:<br>Unit 2 – 1.0 ng/dscm;<br>Unit 3 – 3.7 ng/dscm. |
| Cd (Cadmium) | 35 µg/dscm* | EPA Reference Method 29. Annual test except as provided in 40 CFR §60.58b(d). Applicable test procedures and methods as specified in 40 CFR §60.58b(d). | Stack test July 2024<br>Unit 1 – 0.4 µg/dscm<br>Unit 2 – 0.2 µg/dscm<br>Unit 3 – 0.7 µg/dscm |

**Table 4**
**Emission Standards, General Requirements, and Stack Test Results**

| ***Pollutant/ Parameter*** | ***Emissions Standard for a Large MWC*** * Adjusted to 7 percent oxygen on dry basis. | ***Performance and Compliance Test Requirements*** | ***Results of stack tests or compliance demonstrations*** |
|---|---|---|---|
| Pb (Lead) | 400 µg/dscm* | EPA Reference Method 29. Annual test except as provided in 40 CFR§ 60.58b(d). Applicable test procedures and methods as specified in 40 CFR §60.58b(d). | Stack test July 2024<br>Unit 1 – 3.2 µg/dscm<br>Unit 2 – 1.9 µg/dscm<br>Unit 3 – 11.6 µg/dscm |
| Hg (Mercury) | 50 µg/dscm*<br><br>Or 85% reduction by weight applies if less restrictive than the above. | EPA Reference Method 29. Annual test except as provided in 40 CFR §60.58b(d) and (m). Applicable test procedures and methods as specified in 40 CFR §60.58b(d). | Stack test September 2024<br>Unit 1 – < 0.4 µg/dscm<br>Unit 2 – < 0.4 µg/dscm<br>Unit 3 – 0.6 µg/dscm |

**Table 4**
**Emission Standards, General Requirements, and Stack Test Results**

| ***Pollutant/ Parameter*** | ***Emissions Standard for a Large MWC*** * Adjusted to 7 percent oxygen on dry basis. | ***Performance and Compliance Test Requirements*** | ***Results of stack tests or compliance demonstrations*** |
|---|---|---|---|
| Load | Not to exceed 110 percent of maximum load during most recent dioxin/furan performance test during which compliance with the dioxin/furan emission limit is achieved. | Continuous monitoring – 4 hr. block arithmetic average steam load. Applicable test procedures and methods as provided in 40 CFR §60.58b(i). | Stack test July 2024<br>Test load on Unit 1-192 klb/hr.<br>New Load Limit 211.2 klb/hr. per unit<br><br>Stack test July 2024<br>Test load on Unit 2-192 klb/hr.<br>New Load Limit 211.2 klb/hr. per unit<br><br>Stack test July 2024<br>Test load on Unit 3-192 klb/hr.<br>New Load Limit 211.2 klb/hr. per unit |

**Table 4**
**Emission Standards, General Requirements, and Stack Test Results**

| ***Pollutant/ Parameter*** | ***Emissions Standard for a Large MWC*** * Adjusted to 7 percent oxygen on dry basis. | ***Performance and Compliance Test Requirements*** | ***Results of stack tests or compliance demonstrations*** |
|---|---|---|---|
| Temperature | The maximum particulate matter control device inlet temperature must not exceed by more than 17 degrees Celsius the temperature during the most recent dioxin/furan test demonstrating compliance. | Continuous monitoring. The temperature shall be calculated in 4-hr. block arithmetic averages. Applicable test procedures and methods satisfying the requirements of 40 CFR §60.58b(i) and exemptions in 40 CFR 60.53b(c). | Stack test July 2024<br>Unit 1 FF inlet - 320 ºF (157.2 ºC)<br>New Temp limit - 335.7 ºF (168.7 ºC)<br><br>Stack test July 2024<br>Unit 2 FF inlet - 320 ºF (157.2 ºC)<br>New Temp limit - 335.7 ºF (168.7 ºC)<br><br>Stack test July 2024<br>Unit 3 FF inlet - 320 ºF (156.7 ºC)<br>New Temp limit - 343.6 ºF (173.1 ºC) |
| Fugitive Ash Emissions | Visible emissions less than 5 percent of the observation period during ash transfer. | EPA Reference Method 22 observations as specified in 40 CFR §60.58b(k). Annual test. The emission limit excludes visible emissions discharged inside buildings or enclosures of ash conveying systems or during maintenance and repair of ash conveying systems as specified in 40 CFR §60.55b. | EPA Reference Method 9 observations as specified in 40 CFR 60.58b(k). Annual test. The emission limit excludes visible emissions discharged inside buildings or enclosures of ash conveying systems or during maintenance and repair of ash conveying systems as specified in 40 CFR 60.55b. |

## Compliance Demonstration

**Testing Requirements:**
The Permittee shall perform testing requirements for the emissions and operational parameters in accordance with the test methods and specified frequencies as referenced in Table 3 for the three large MWCs no less than 9 months and no more than 15 months following the previous test. **[Reference: COMAR 26.11.08.08A(2), which references 40 CFR §60.58b]**

**Monitoring Requirements:**

1. The Permittee shall:

    a. Install, calibrate, operate and maintain continuous emission monitors for carbon monoxide, oxygen, opacity, oxides of nitrogen, and sulfur dioxide;

    b. Locate monitors downstream of the final air pollution control device to measure concentrations of oxygen, oxides of nitrogen, sulfur dioxide, and opacity of the exhaust gases; and

    c. Install, operate, and maintain at a minimum, one temperature monitor to measure the temperature of the flue gas as it enters the particulate matter control device. **[Reference: COMAR 26.11.01.11B(3) and COMAR 26.11.08.08B(1)]**

2. If the percent removal option is to be used to show compliance with regulation COMAR 26.11.08.08B (1)(b), sulfur dioxide and oxygen monitors shall also be located upstream of the pollution control device. Monitors shall be located at the combustor outlet exit to measure concentrations of carbon monoxide. **[Reference: COMAR 26.11.08.08B(2)]**

    *Note:* *$SO_2$ and $O_2$ are measured upstream of the air pollution control device to calculate % removal and CO is measured downstream of air pollution control devices as approved per COMAR 26.11.08.08(B)(4)*

3. The monitors required by COMAR 26.11.08.08B(1)(a) and (b) of this regulation shall meet the installation, certification, reporting, record-keeping, and other requirements of COMAR 26.11.01.10, performance specifications in 40 CFR Part 60, Appendix B, the quality assurance procedures in 40 CFR Part 60, Appendix F, specifications in 40 CFR Sec. 60.58b, and COMAR 26.11.31.. **[Reference: COMAR 26.11.08.08B(3)]**

4. A person shall apply for and receive written approval from the Department before installing any of the monitors required in this chapter. **[Reference: COMAR 26.11.08.08(B)(4)]**

5. During the performance tests for dioxins/furans and mercury, as applicable, the owner or operator shall estimate an average carbon mass feed rate based on carbon injection system operating parameters such as the screw feeder speed, hopper volume, hopper refill frequency, or other parameters appropriate to the feed system being employed. **[Reference: 40 CFR § 60.58b(m)(1)]**

6. An average carbon mass feed rate in kilograms per hour or pounds per hour shall be estimated during the initial performance tests for mercury emissions and each subsequent performance test for mercury emissions. **[Reference: 40 CFR §60.58b(m)(1)(i)]**

7. An average carbon mass feed rate in kilograms per hour or pounds per hour shall be estimated during the initial performance tests for dioxin/furan emissions and each subsequent performance test for dioxin/furan emissions. If a subsequent dioxin/furan performance test is being performed on only one affected facility at the MWC plant, the owner or operator may elect to apply the same estimated average carbon feed rate from the tested facility for all the similarly designed and operated facilities at the MWC plant. **[Reference: 40 CFR § 60.58b(m)(1)(ii)]**

8. During operation of the affected facility, the carbon injection system operating parameter(s) that are the primary indicator(s) of the carbon mass feed rate shall be averaged over a block 8-hour period and the 8-hour block average must exceed or equal the level(s) documented during the performance tests specified under 40 CFR 60.58b(m)(1)(i)&(ii) except as specified in §§(m)(2)(i) and §§(m)(2)(ii). **[Reference: 40 CFR §60.58b(m)(2)]**

9. During the annual dioxin/furan or mercury performance test and the 2 weeks preceding the annual performance test, no limit is applicable for the average mass carbon feed rate if the provisions of §§(m)(2)(ii) are met. **[Reference: 40 CFR 60.58b(m)(2)(i)]**

10. The limit for average mass carbon feed rate may be waived in accordance with permission granted by the Administer for the purpose of evaluating system performance, testing new technology or control technology, diagnostic testing or related activities. **[Reference: 40 CFR § 60.58b(m)(2)(ii)]**

**Record Keeping Requirements:**

1. The Permittee shall maintain records in accordance with 40 CFR §60.59(b) of Subpart Eb, as applicable, except for the siting requirements under §§60.59b(a), (b)(5), and (d)(11) of 40 CFR 60 Subpart Eb. **[Reference: COMAR 26.11.08.08C(1)]**

2. Continuous emissions monitoring data reduction and data availability shall be in accordance with COMAR 26.11.01.10. If there is any inconsistency between COMAR 26.11.01.10 and 40 CFR Part 60, the requirements of 40 CFR Part 60 govern. **[Reference: COMAR 26.11.08.08C(2)]**

3. The Permittee shall estimate the total carbon usage of the plant for each calendar quarter by two independent methods as stated in conditions 4 and 5 below. **[Reference: 40 CFR §60.58b(m)(3)]**

4. The Permittee shall estimate total carbon usage at the plant by maintaining records for of the weight of carbon delivered to the plant on a quarterly basis. **[Reference: 40 CFR §60.58b(m)(3)(i)]**

5. The Permittee shall estimate the average carbon mass feed rate for each hour of operation for each affected facility based on the carbon feed system parameters specified during performance testing. The Permittee shall sum the results for all affected facilities at the plant for the total number of hours of operation during the calendar quarter. **[Reference: 40 CFR §60.58b(m)(3)(ii)]**

6. The Permittee shall retain records of quarterly carbon usage using the methods described above for a period of 5 years and make that data available to the Department upon request. **[Reference: COMAR 26.11.03.06C]**

**Reporting Requirements:**

1. The Permittee shall submit a quarterly CEM/COM and parameter monitoring data excess emission report to the Department not later than 30-days following each calendar quarter. At a minimum, the report shall include: **[Reference: COMAR 26.11.01.10D(2)(c) and COMAR 26.11.01.11E(2)(c)]**

    a. A listing of the time period, magnitude, and cause of all emissions that exceeded the applicable emission or parameter monitoring standard for the respective emission/parameter averaging time,

b. A listing of all excluded data and the reason for excluding the data,

c. A listing of all the 1-hour average emission concentrations, 1-hour percent reduction data, as applicable, and 1-hour parameter monitoring data for any day that there was either an exceedance of an emission or parameter standard or for any day that the Permittee excluded data. The listing is only required for the respective pollutant or parameter that there was an exceedance for or Permittee excluded data,

d. A listing of time periods ( including invalid hourly averages and invalid 6-minute averages for COMS) and cause of all CEM/COM and parameter monitor downtimes,

e. A listing of installation (MWC units) downtime,

f. Daily calibration activities when results exceeded the daily calibration drift and the results of all audits performed during the quarter, and

g. A summary of the quarterly totals of excess emissions, installation downtimes, and monitor downtimes.

2. A person who owns an existing MWC subject to this regulation shall submit to the Department semi-annual reports that includes the information specified in §§(g)(1) through §§(g)(5)**,** as applicable, by August 1st and February 1st for the respective reporting periods: **[Reference 40 CFR §60.59b(g)]**

3. A person who owns an existing MWC subject to this regulation shall submit to the Department semi-annual reports that includes the information specified in §§(h)(1) through §§(h)(5), as applicable, for any recorded pollutant or parameter that does not comply with the pollutant or parameter limit specified under this subpart by August 1st and February 1st for the respective reporting periods. **[Reference: 40 CFR §60.59b(h)]**

*Compliance Status*

*The Permittee performed stack tests of all applicable parameters annually and has demonstrated compliance with the emission limits established in COMAR 26.11.08.08A(2). The most recent stack test occurred in July 2024. Mercury contamination was detected in the potassium permanganate during the July tests, so the stack test team came back in Sept to conduct the*

*mercury tests. Test results demonstrate compliance. The results are shown in Table 4.*

*Rationale for Periodic Monitoring*

The permit requires continuous monitoring of specific operating parameters such as activated carbon mass feed rate, municipal waste combustor unit load, and maximum inlet temperature to the particulate matter control device. Monitoring of these parameters provides assurance that the incinerators continue to operate at the levels established during compliance stack tests. Stack tests provide a snapshot of a facility's emissions at the time testing is performed. In conjunction with the testing and sampling of emissions recording devices are used to simultaneously measure a range of pollutants and operating conditions in several "runs" over the course of a testing day. By this means, operating conditions are correlated with compliance with the emissions limits.

It is also well established that good combustion practice is the most effective strategy in reducing PM emissions (which includes mercury, cadmium, and lead), dioxins/furans, other organic pollutants as well as carbon monoxide (CO) from municipal waste combustors. Good combustion control practices include proper design, construction, operation and maintenance practices for combustion grates, boilers, and air pollution controls. Low CO levels are an indicator of complete combustion and that the unit is being operated in a manner that minimizes not only CO emissions but also emissions of other pollutants. Maintaining low CO emissions ensures complete combustion of all combustible waste and destruction of organic compounds. Good combustion practices also includes maintaining unit load or steam flow near levels established during stack testing to minimize carryover of fly ash from the furnace to boiler sections and thereby reduce PM and associated emissions loading to air pollution controls.

Wheelabrator is subject to the emission guidelines for existing large municipal waste combustors (MWCs), which impose limits for PM, mercury, cadmium, lead, hydrogen chloride, and dioxins/furans. MDE has evaluated whether the monitoring requirements in the existing federal rules are sufficient for assuring compliance with these limits. As part of this analysis, MDE has reviewed the underlying basis of the MWC rule and determined that there is nothing unique to the Wheelabrator facility that would indicate that it is not representative of existing municipal waste combustors in general with respect to construction design, air pollution control equipment, continuous monitoring systems, emissions variability, types of wastes combusted, etc. Furthermore, the use of parametric and surrogate monitoring has been reaffirmed in rules promulgated by EPA, including the Portland Cement MACT and the Boiler

MACT. EPA, in the September 9, 2010 Final Rule promulgating National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry and Standards of Performance for Portland Cement Plants reaffirmed EPA's position on using surrogate monitoring. In particular, EPA notes that the Courts have also upheld EPA's position- "Particulate matter serves as a surrogate for non-volatile metal HAP (a determination upheld for this source category in National Lime Association, 233 F.3d at 637–39)." EPA's Boiler MACT (40 CFR part 63, subpart DDDDD, Mar 21, 2011 final, amended Jan 31, 2013) also references both parametric monitoring and the use of surrogates as acceptable methods for demonstrating continuous compliance with Clean Air Act emission standards.

The following table summarizes the monitoring strategy for each pollutant, background information and permit conditions that assure compliance with the emission limitations for PM, Pb, Cd, Hg, dioxin/furans, and HCl.

**Table 5 – Monitoring Strategies**

| Pollutant(s) | Surrogate pollutant / Operating Parameter | Permit Condition |
|---|---|---|
| PM, Pb and Cd | Opacity (COMs) | The opacity limit in the Title V permit is 10 percent, averaged over a 6-minute block period. The facility must operate and maintain a continuous opacity monitoring system.<br><br>Wheelabrator operates pulse jet fabric filters (FF) for control of particulate matter (PM) and MWC metals and to capture carryover carbon and lime from the ACI and SDA control systems.<br><br>During the stack test opacity is measured and the results are evaluated in order to determine whether compliance with the opacity limit will also assure compliance with the PM emissions limit.<br><br>The stack test results over the past years have shown that emissions of PM, Pb, and Cd are an order of magnitude below the emissions standards. The PM standard is 25 mg/dscm (0.01093 gr/dscf ) and the results ranged from 0.00045 to 0.0079gr/dscf. For lead the standard is 400 µg/dscm and the results ranged from 14.2 |

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| | | to 103 µg/dscm. For Cd the standard is 35 µg/dscm and the results were 0.3 to 7.3 µg/dscm. |
| Hg, Dioxin/ Furans | Carbon mass feed rate | *An average carbon mass feed rate in kilograms per hour or pounds per hour shall be estimated during the initial performance test for dioxin/furan emissions and each subsequent performance test for dioxin/furan emissions.*<br><br>During operation of the affected facility, the carbon injection system operating parameter(s) that are the primary indicator(s) of the carbon mass feed rate shall be averaged over a block 8-hour period and the 8-hour block average must exceed or equal the level(s) documented during the performance tests specified under 40 CFR 60.58b(m)(1)(i)&(ii) except as specified in §§(m)(2)(i) and §§(m)(2)(ii).<br><br>The Permittee shall maintain records in accordance with 40 CFR Sec. 60.59(b) of Subpart Eb, as applicable, except for the siting requirements under Sec. 60.59b(a), (b)(5), and (d)(11) of 40 CFR 60 Subpart Eb. [Reference: COMAR 26.11.08.08C(1)]<br><br>Incorporated by reference is 40 CFR Sec. 60.59(b) of Subpart Eb which states: "(d)(4) For affected facilities that apply activated carbon for mercury or dioxin/furan control, the records specified in paragraphs (d)(4)(i) through (d)(4)(v) of this section.<br><br>(i) The average carbon mass feed rate (in kilograms per hour or pounds per hour) estimated as required under §60.58b(m)(1)(i) of this section during the initial mercury performance test and all subsequent annual performance tests, with supporting calculations.<br><br>(ii) The average carbon mass feed rate (in kilograms per hour or pounds per hour) estimated |

| | | |
|---|---|---|
| | | as required under §60.58b(m)(1)(ii) of this section during the initial dioxin/furan performance test and all subsequent annual performance tests, with supporting calculations.<br><br>(iii) The average carbon mass feed rate (in kilograms per hour or pounds per hour) estimated for each hour of operation as required under §60.58b(m)(3)(ii) of this section, with supporting calculations.<br><br>(iv) The total carbon usage for each calendar quarter estimated as specified by paragraph 60.58b(m)(3) of this section, with supporting calculations.<br><br>(v) Carbon injection system operating parameter data for the parameter(s) that are the primary indicator(s) of carbon feed rate (e.g., screw feeder speed)." Note: The facility continuously monitors the screw feed rate and once every 8 hours collects a sample in a bucket to verify the pounds/hour carbon feed rate. |
| PM, Cd, Pb, Dioxins/ Furans | Unit Load | *The maximum demonstrated municipal waste combustor unit load shall be determined during the initial performance test for dioxins/furans and each subsequent performance test during which compliance with the dioxin/ furan emission limit specified in § 60.52b(c) is achieved. The maximum demonstrated municipal waste combustor unit load shall be the highest 4-hour arithmetic average load achieved during four consecutive hours during the most recent test during which compliance with the dioxin/furan emission limit was achieved.*<br><br>The facility is required to continuously monitor 4 hr. block arithmetic average steam load. The applicable test procedures and methods are as provided in 40 CFR 60.58b(i)(6) and (8). |

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| | | The load is limited not to exceed 110 percent of maximum load during most recent dioxin/furan performance test during which compliance with the dioxin/furan emission limit is achieved. |
| HCl, Hg, Dioxin/ Furans | Maximum Inlet Temperature | *To determine compliance with the maximum inlet temperature to the particulate matter control device requirements under §60.53b(c), the owner or operator of an affected facility shall install, calibrate, maintain, and operate a device for measuring on a continuous basis the temperature of the flue gas stream at the inlet to each particulate matter control device utilized by the affected facility. Temperature shall be calculated in 4-hour block arithmetic averages.*<br><br>Research on the performance of MWC's has shown that maintaining low flue gas temperature has the dual effect of improving reagent (lime) utilization and increases removal of volatile trace elements, such as mercury and dioxin/furans, as well as acid gas emissions (HCl and $SO_2$).<br><br>Maintaining particulate matter control device inlet temperature near the level established during annual dioxin testing ensure temperatures are maintained well below the temperature where post furnace formation of dioxins/furans on fly ash collected in the particulate matter control device could occur. |
| PM, Pb, Cd, Hg, HCl, and Dioxins /Furans | CO CEMS | The facility must meet an Emissions Guidelines CO limit of 100 ppv on a 4-hour block average, excluding startup, shutdown, and malfunctions and a PSD limit of 121 pounds/hour based on an 8-hour block average with no exclusion of SSM . A continuous emissions monitoring system for CO is required to be operated and maintained.<br><br>Combustion control is most effective in reducing dioxin, furans, other organic pollutants, PM, NOx |

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| | | and CO emissions (75 FR 31942, June 4, 2010 – Proposed rule for Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Commercial and Industrial Solid Waste Incineration Units.)<br><br>Low CO levels are an indicator of complete combustion and that the unit is being operated in a manner that minimizes not only CO emissions, but also emissions of other pollutants. (75 FR 31967). |
| HCl | $SO_2$ CEMS | Wheelabrator utilizes an acid gas scrubber to reduce $SO_2$ emissions and uses a CEMs to measure $SO_2$ emissions and performance of the scrubber. HCl is more reactive than $SO_2$. The HCl reaction with the caustic in the scrubber will complete before the $SO_2$ reaction so the HCl emissions are related to $SO_2$ emissions. When compliance with the $SO_2$ limit is achieved, there is a reasonable level of assurance that continuous compliance with the HCl will also be achieved.<br><br>EPA has noted the relationship between controls for HCl and controls for $SO_2$. The September 9, 2010 final Portland Cement MACT states- "Setting technology-based MACT standards for HCl will result in significant reductions in emissions of other pollutants, most notably $SO_2$…"<br><br>EPA also noted the co-benefits of reducing $SO_2$ through an HCl limit in the recently finalized Boiler MACT as an explanation for not establishing a risk-based exemption for HCl. |
| All pollutants | Trained and Certified Incinerator Operators | The permit requires Wheelabrator to have properly trained and certified incinerator operators. As part of the certification process, the operators receive training on combustion controls, including proper design, construction, |

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|---|---|---|
| | | operation and maintenance of the incinerator to destroy or prevent the formation of air pollutants prior to their release to the atmosphere. Combustion control is most effective in reducing PM, and CO emissions as well as dioxins/furans. |

## B. Incinerator Operator Training

1. Certification Requirement—A person may not operate or allow an incinerator to be operated unless the owner certifies to the Department on a form approved by the Department that the incinerator operator:

   a. Has completed an initial training course approved by the Department which meets the requirements of COMAR 26.11.08.09D; and

   b. Annually, after initial certification, completes a review course approved by the Department.

2. For any incinerator operator who operates a municipal waste combustor (MWC), the training course shall address the following subjects in detail:

   a. Overall operation, maintenance, and performance of the facility;

   b. Start-up and shut-down of the facility;

   c. Applicable federal, State, and local environmental regulations, and sanctions for violations;

   d. Policies and procedures for proper and safe plant operation;

   e. Maintaining records of facility operations;

   f. Actions to correct upsets or emergencies;

   g. Control room operations;

   h. Ash handling and disposal;

   i. Combustion theory;

   j. Air pollution control technology; and

k. Continuous emission monitors and their calibration, and quality assurance requirements.

3. For the operator of any municipal waste combustor (MWC), completing a training course means:

   a. Completing an initial training course approved by the Department of at least 5 days (40 hours) duration; and

   b. Passing a written test approved by the Department.

4. The certified operator shall, after initial training, complete and pass an annual review course approved by the Department of at least 1-day (8 hours) duration.

5. Operation and Maintenance Manual.

   a. The owner or operator of a large MWC, shall develop and maintain on-site, an operations and maintenance manual that contains, at a minimum, all of the course content requirements in COMAR 26.11.08.09D(1) and in 40 CFR §60.54b(e); and

   b. The operations and maintenance manual shall be updated annually.

**Compliance Demonstration**

1. The Permittee shall maintain a copy of a certificate issued by the Department to each incinerator operator who has satisfactorily completed an approved incinerator training course and has passed the exit examination. **[Reference: COMAR 26.11.08.09 and COMAR 26.11.03.06C(3)]**

2. Records and Notification. Within 10 days after training is complete, the person who conducts an approved incinerator operator training course shall:

   a. Notify the Department in writing, of the names, employee identification numbers, and employer of those incinerator operators who have successfully complete the training course; and

   b. Provide a certificate to each incinerator operator who has satisfactorily completed the training course and has passed the required examination. **[Reference: COMAR 26.11.08.09G(1) & (2)]**

*Compliance Status*
*The Company has an approved MWC operator-training course and Operations and Maintenance Manual. All operators are current on their Operator Training Certification. The Incinerator Operator Training program based on the requirements found in COMAR 26.11.08.09 for MWCs and their operators have been approved as part of Maryland's 111(d) Plan for MWCs and meets the incinerator operator training requirements in Subpart Eb. [40 CFR §60.54b(e)]*

## C. PSD Approval 83-01 (Feb. 21, 1986)

1. The Permittee shall not exceed the facility-wide **(MWC Units #1, 2 & 3)** emissions limitations specified below **[Reference PSD Approval 83-01, Part I- Condition (1)]**:

   $SO_2$: 375 lbs./hr. and 1,478 tons/year
   CO: 121 lbs./hr. and 477 tons/year
   NOx: 298 lbs./hr. and 1,176 tons/year
   Fluorides: 12 lbs./hr. and 47 tons/year

2. Compliance with the facility wide lb./hr. PSD emission limit shall be determined as follows:

   a. $SO_2$, CO and NOx: 8-hour block average. A valid facility eight-hour block average is based on a minimum of 6 hours of total facility hourly data.

   b. Fluorides: the average of three test runs using EPA Reference Method 13B, 26A, or equivalent

   c. All emissions associated with startup, shutdown, and malfunction episodes are included in the pounds per hour standard. **[Reference: COMAR 26.11.02.02H]**

3. The tons per year PSD emission limits are a 12-month composite (rolling monthly) and includes all emissions associated with startup, shutdown, and malfunction episodes. **[Reference: COMAR 26.11.02.02H]**

4. The Permittee shall develop and submit to the Department for approval, procedures to ensure that only acceptable wastes as defined in Appendix A of the PSD application are incinerated. **[Reference: PSD Approval 83-01 Part I, Condition (4)]**

5. The start-up fuel for the incinerator shall be natural gas. The incinerator shall not exceed a fuel consumption rate of $2.7 \times 10^7$ ft.$^3$ of natural gas in any one (1)-year period. **[Reference: PSD Approval 83-01 Part I, Condition (5)]**

## Compliance Demonstration

**Testing Requirements:**
The Permittee shall perform annual testing for fluorides no less than 9 months and no more than 15 months following the previous test using EPA Reference Method 13B or 26A or equivalent. Testing may be combined with the existing large MWC annual HCl testing. [**Reference COMAR 26.11.03.06C(3)]**

**Monitoring Requirements:**
1. The Permittee shall monitor natural gas fuel usage to ensure compliance with the PSD limitation. Total facility fuel usage shall be calculated on a 12-month rolling average basis. [**Reference:** COMAR 26.11.03.06C(3)].

2. The Permittee shall continuously monitor pollutants and other parameters necessary to calculate the pounds per hour PSD limits. The methodology for calculating the lbs./hr. emissions shall be as follows:

   Average lbs./hour = (ppm)*(AFSF factor (DSCFH/Klbs))*(actual steam flow (Klbs/hr))*(Conversion Factor), where:

   - ppm = CEM hourly average ppmdv for CO, NOx, and $SO_2$
   - Stack test air flow to steam flow factor (AFSF) = Dry standard cubic foot per hour air flow per thousand lbs. steam (DSCFH/Klb)
   - Actual steam flow (Klbs/hour) = steam flow in thousand pounds per hour
   - Conversion Factor = 1.66E-07 for $SO_2$, 1.194E-07 for NOx, and 7.27E-08 for CO from 40 CFR Part 60 Appendix B Method 19 procedures for converting ppm to lbs./dscf. **[Authority: COMAR 26.11.03.06C(3)]**

     **Note:** *The AFSF factors are to be updated during annual stack testing or an alternative methodology approved by the Department.*

**Record Keeping Requirements:**
1. The Permittee shall retain records of all emissions data and operating parameters and fuel use, as required by the terms of PSD Approval 83-01

for a period of five (5) years. **[Reference: PSD Approval 83-01 Part II Condition (5) and COMAR 26.11.03.06C**]

2. The Permittee shall maintain records of the calculated pounds per hour and the tons per year for a period of 5 years. **[Reference: COMAR 26.11.03.06C]**

3. The Permittee shall maintain a record of the results of the annual stack test for fluorides for a period of 5 years. **[Reference: COMAR 26.11.03.06C]**

**Reporting Requirements:**

1. The Permittee shall submit the results of annual fluoride tests along with the other annual emission test results that satisfy COMAR 26.11.08.08C(1). **[Reference: COMAR 26.11.03.06C]**

2. The Permittee shall submit a quarterly excess emission report to the Department not later than 30-days following each calendar quarter. At a minimum, the report shall include:

   a. A listing of the time period, magnitude, and cause of all emissions that exceeded the applicable emission standard for the respective emission averaging time and An explanation of the cause for the exceedance and actions taken to return to compliance, and

   b. A listing of all of the 12-month rolling emissions for $SO_2$, CO, NOx for the quarter. **[Reference COMAR 26.11.03.06C]**

3. If, for any reason, the Permittee does not comply or will not be able to comply with the emission limitations or other conditions specified in this Approval, the Permittee shall provide the Department with the following information as soon as possible, but no later than five (5) days after such conditions become known to the Company:

   a. Description of non-compliance;

   b. Cause of non-compliance;

   c. Anticipated time the non-compliance is expected to continue or, if corrected, the actual duration of non-compliance;

   d. Steps taken to minimize or eliminate non-compliance; and

   e. Steps taken to prevent recurrence of the non-compliance.

4. Submittal of this report does not constitute a waiver of the emission limitations or other conditions of this Approval nor does it in anyway restrict the Department's Reference to enforce the conditions.
   **[Reference: PSD Approval 83-01 Part II-Condition (6)]**

   *Note: This report applies to noncompliance with PSD Approval 83-01 emission limits and other PSD conditions only.*

*Rationale for Periodic Monitoring*
*The revised monitoring and calculation methodology is as follows: NOx, $SO_2$ and CO CEM data from each unit is converted to hourly average lbs./hr. emission rates using unit specific stack test air flow to steam flow (AFSF) factors in units of dry standard cubic feet per hour per thousand pounds of steam. The AFSF factors are derived from the stack test air flow and boiler steam flow averages for each unit from annual stack testing. The AFSF factors are updated during annual stack testing or an alternative methodology approved by the Department. Actual hourly boiler steam flow averages will be used in conjunction with the AFSF factors to calculate hourly stack air flows based on boiler operating levels. If steam load increases, then the calculated hourly stack air flow and emissions rate increase proportionately.*

*The hourly emissions rate calculations are programmed into the CEM data loggers located in the CEM shelter and transmitted to the CEM data acquisition system (DAS) computer. The DAS computer calculates hourly total facility emissions for $SO_2$, NOx, and CO and then calculates the $SO_2$, NOx, and CO 8-hour block total facility averages from the hourly facility emissions totals. A valid facility eight-hour block average is based on a minimum of 6 hours of total facility hourly data. A summary of the daily 8-hour block average facility emissions rate for each unit and total facility emission averages are printed daily and reviewed by operating personnel. The annual 12 month rolling $SO_2$, NOx, and CO total emissions will be calculated in CEM DAS computer. Daily total facility emissions will be used to generate monthly facility emissions totals in tons. The 12-month rolling average of total facility emissions will be calculated at the end of each calendar month. The 12-month rolling average of total facility emissions will be used in the annual emission inventory report. The hourly CEM data, hourly unit, and total facility emissions averages and monthly facility emission totals will be archived in the CEM DAS computer hard drive.*

*The proposed monitoring methodology provides an accurate determination of facility emissions and compliance with PSD emissions limits for the following reasons: 1) Stack test air flow to steam flow factors are derived from actual*

*stack testing conditions at representative operations and will be revised annually based on boiler operating conditions, 2) Real time boiler hourly steam flow averages will be used to calculate stack test air flows proportionately to boiler load making sure emissions accurately reflect boiler operating loads, 3) Stack test air flows are obtained directly from EPA Reference Method 1-4, 4) The CEMs are subject to the Department and EPA CEM QA/QC requirements that ensure accuracy, 5) Steam flow accuracy is verified by annual calibration of steam flow meters in accordance with the 40 CFR 60 Subpart Cb requirements, and 6) Stack test air flow to steam flow factors for each unit will be provided in the annual stack test report for the Department's review and approval. The approved stack test flow to steam flow factors will be included with the minimum carbon feed rates, maximum boiler steam flows and maximum FF inlet temperature limits provided in the Department's stack test report acceptance letter.*

**D. NSINA Approval No. 83-01 (Feb. 21, 1986)**

Each furnace shall be equipped with an ESP that shall be operated in a manner such that particulate matter at the ESP outlet does not exceed 0.017 gr/dscf.
**[Reference: NSINA Approval 83-01 Condition (3)]**

*Note: The electrostatic precipitator (ESP) has been removed. Ongoing compliance shall be demonstrated with a pulse jet fabric filter (FF).*

*Note: Compliance with the Large MWC particulate emissions of 25 mg/dscm (0.01093 gr/dscf) under COMAR 26.11.08.08A(2) assures compliance with the NSINA limit.*

***Compliance Demonstration***
The Permittee shall perform annual testing for particulate emissions in accordance with the standards for existing large MWCs as provided in COMAR 26.11.08.08A(2). **[Reference: COMAR 26.11.03.06C(3)]**

*Note: The NSINA particulate emissions standard is subsumed by the particulate emissions standard of COMAR 26.11.08.08A(2).*

*Compliance Status*
*Each furnace is equipped with A pulse jet fabric filter (FF) and the particulate grain loading at the outlets of the FF complies with the particulate matter emission standard for large MWCs found at COMAR 26.11.08.08A(2). Stack testing is performed on an annual basis to demonstrate compliance, and the*

*facility has always demonstrated compliance. Results of the most recent stack test are shown in Table 4.*

## E. Visible Emissions

No emissions, other than water in an uncombined form, visible to human observers. The no visible emission requirement does not apply to emissions during start-up, or adjustments, or occasional cleaning of control equipment, if: (1) the visible emissions are not greater than 40 percent opacity; and (2) the visible emissions do not occur for more than 6 consecutive minutes in any 60-minute period. **[Reference: COMAR 26.11.08.04B&C]**

**Compliance Demonstration**
The Permittee must conduct periodic opacity or fugitive emission test using EPA Reference Method 9 observations for a 15-minute period at least once per month while the units are in operation. Records of these observations must be kept on-site for five (5) years and made available to the Department on request.

## COMPLIANCE ASSURANCE MONITORING (CAM) REQUIREMENTS

CAM is intended to provide a reasonable assurance of compliance with applicable requirements under the Clean Air Act for large emission units that rely on air pollution control (APC) equipment to achieve compliance. The CAM approach establishes monitoring for the purpose of: (1) documenting continued operation of the control measures within ranges of specified indicators of performance (such as emissions, control device parameters, and process parameters) that are designed to provide a reasonable assurance of compliance with applicable requirements; (2) indicating any excursions from these ranges; and (3) responding to the data so that the cause or causes of the excursions are corrected. In order for a unit to be subject to CAM, the unit must be located at a major source, be subject to an emission limitation or standard; use a control device to achieve compliance with the emissions limitation or standard; have pre-control emissions of at least 100% of the major source amount; and must not otherwise be exempt from CAM. Applicability determinations are made on a pollutant-by-pollutant basis for each emissions unit.

### CAM Plan Applicability Determination

Wheelabrator Baltimore, L.P. consists of three municipal waste combustors (MWCs) that generate steam, a portion of which is sold to a steam distribution system and a portion of which is used to produce electricity. Three wet scrubbers are used to control particulate matter from ash areas (ash handling area vent, ash

load out area vent, and ash trommel area vent). Other equipment include three lime storage silos equipped with a common bin vent filter and one activated carbon storage silo equipped with a bin vent bag filter. The lime and carbon storage silos and ash area wet scrubbers are included in the Title V permit as insignificant activities since these sources have potential uncontrolled PM emissions less than 1.0 ton/year.

**Control Devices**

The MWCs are equipped with an advanced selective non-catalytic reduction (SNCR) systems for control of oxides of nitrogen (NOx), activated carbon injection (ACI) systems for control of mercury (Hg), spray dry absorbers (SDA) for control of acid gases (sulfur dioxide [$SO_2$] and hydrogen chloride [HCl]), and pulse jet fabric filters (FF) for control of particulate matter (PM) and MWC metals and to capture carryover carbon and lime from the ACI and SDA control systems. No tail-gas control devices are used for CO (emissions controlled by processes – i.e., combustion – controls, which are not considered to be applicable to Compliance Assurance Monitoring [CAM] requirements), so CAM is not applicable to any CO emission limitations based on 40 CFR 64.2(a)(2). The lime and carbon storage silos are vented during filling operations through fabric filter dust collectors, and the ash areas are vented through wet scrubbers.

**Emission Limitations**

The MWCs are subject to the NSPS Subpart Cb emission limitations (adopted at COMAR 26.11.08.08A(2)), included in the current Title V Permit as Condition IV.1.1 as shown on the attached table. These NSPS Subpart Cb emission limitations were promulgated after 1990 and are thus exempt from CAM requirements under 40 CFR §64.2(b)(1)(i). The only other applicable MWC emission limitations are the original PSD Permit emission limitations for $SO_2$, CO, NOx, and fluorides, included in the current Title V permit as Condition IV.1.9 as shown on the attached table. Fluoride emissions are less than the major source threshold of 100 tons per year (TPY). In addition, CAM does not apply for fluorides because the PSD Permit fluoride emissions limitation is based on no controls (40 CFR §64.2(a)(2)). Although the facility wide CO PSD limit of 121 lbs./hr. is exempt from CAM for the reason discussed above, a continuous determination method is included in the Title V permit. The Title V permit also specifies continuous compliance determination methods for the facility wide (combined emissions for all three units) $SO_2$ and NOx PSD Permit emission limitations of 375 and 298 lbs./hour respectively using continuous emission monitoring systems (CEMS). Therefore, the CO, $SO_2$, and NOx PSD Permit emission limitations are exempted from CAM requirements based on 40 CFR 64.2(b)(1)(vi). The lime silos and ash area wet scrubbers are insignificant activities and are thus not subject to specific permit emission limitations (other than the general COMAR requirement that uncontrolled emissions are less than 1.0 TPY).

**CAM Applicability Summary**

All MWC Subpart Cb emission limitations are exempted from CAM based on 40 CFR §64.2(b)(1)(i) since the Cb emissions limitations were promulgated after 1990. The CO, $SO_2$, and NOx PSD Permit emission limitations are also exempted from CAM by 40 CFR §64.2(b)(1)(vi) since the Title V Permit already requires continuous compliance determination methods based on CEMS and Department approved methodologies. Compliance with the PSD Permit fluoride emissions limitation does not require a control device (limit is based on no control) so CAM does not apply in accordance with 40 CFR §64.2(a)(2). Insignificant activities are not subject to CAM since there is no specific permit emission limitation for these sources (40 CFR §64.2(a)(1)) and, in any event, uncontrolled emissions are less than the major source threshold levels (40 CFR §64.2(a)(3)). Therefore, based on this CAM Plan Applicability determination, a CAM Plan is not required.

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## COMPLIANCE SCHEDULE

Wheelabrator Baltimore, L.P. is currently in compliance with all applicable air quality regulations.

## TITLE IV – ACID RAIN

Not Applicable

## TITLE VI – OZONE DEPLETING SUBSTANCES

Wheelabrator Baltimore, L.P. is not subject to Title VI requirements.

## SECTION 112(r) – ACCIDENTAL RELEASE

Wheelabrator Baltimore, L.P. is not subject to the requirements of Section 112(r).

## PERMIT SHIELD

The Wheelabrator Baltimore, L.P. facility requested that a permit shield be expressly included in the Permittee's Part 70 permit. Permit shields are granted on an emission unit by emission unit basis. If an emission unit is covered by a

permit shield, a permit shield statement will follow the emission unit table in Section IV - Plant Specific Conditions of the permit. In this case, a permit shield was granted for each emission unit covered by the permit.

## INSIGNIFICANT ACTIVITIES

This section provides a list of insignificant emissions units that were reported in the Title V permit application. The applicable Clean Air Act requirements, if any, are listed below the insignificant activity.

(1) No. 1 Stationary internal combustion engines with an output less than 500 brake horsepower (373 kilowatts) and which are not used to generate electricity for sale or for peak or load shaving;

The generator is subject to the following requirements:

(A) COMAR 26.11.09.05E(2), Emissions During Idle Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.

(B) COMAR 26.11.09.05E(3), Emissions During Operating Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.

(C) Exceptions:

(i) COMAR 26.11.09.05E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system.

(ii) COMAR 26.11.09.05E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:

(a) Engines that are idled continuously when not in service: 30 minutes
(b) all other engines: 15 minutes.

(iii) COMAR 26.11.09.05E(2) & (3) do not apply while maintenance, repair or testing is being performed by qualified mechanics.

(D) COMAR 26.11.36.03A(1), which establishes that the Permittee may not operate an emergency generator except for emergencies, testing and maintenance purposes.

(E) COMAR 26.11.36.03A(5), which establishes that the Permittee may not operate an emergency generator for testing and engine maintenance purposes between 12:01 a.m. and 2:00 p.m. on any day on which the Department forecasts that the air quality will be a code orange, code red, or code purple unless the engine fails a test and engine maintenance and a re-test are necessary.

(2) ✓ Space heaters utilizing direct heat transfer and used solely for comfort heat;

(3) No. >1 Unheated VOC dispensing containers or unheated VOC rinsing containers of 60 gallons (227 liters) capacity or less;

The Various VOC containers are subject to COMAR 26.11.19.09D, which requires that the Permittee control emissions of volatile organic compounds (VOC) from cold degreasing operations by meeting the following requirements:

(a) COMAR 26.11.19.09D(2)(b), which establishes that the Permittee shall not use any VOC degreasing material that exceeds a vapor pressure of 1 mm Hg at 20 ° C;

(b) COMAR 26.11.19.09D(3)(a—d), which requires that the Permittee implement good operating practices designed to minimize spills and evaporation of VOC degreasing material. These practices, which shall be established in writing and displayed such that they are clearly visible to operators, shall include covers (including water covers), lids, or other methods of minimizing evaporative losses, and reducing the time and frequency during which parts are cleaned;

(c) COMAR 26.11.19.09D(4), which prohibits the use of any halogenated VOC for cold degreasing.

The Permittee shall maintain on site for at least five (5) years, and shall make available to the Department upon request the following records of operating data:

(a) Monthly records of the total VOC degreasing materials used; and

(b) Written descriptions of good operating practices designed to minimize spills and evaporation of VOC degreasing materials.

(4) ✓ Equipment for drilling, carving, cutting, routing, turning, sawing, planing, spindle sanding, or disc sanding of wood or wood products;

(5) Containers, reservoirs, or tanks used exclusively for:

(a) ✓ Storage of butane, propane, or liquefied petroleum, or natural gas;

(b) No. >1 Storage of lubricating oils;

(c) No. 4 Unheated storage of VOC with an initial boiling point of 300 °F (149 °C) or greater;

(d) No. 2 Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel;

(e) No. >1 The storage of VOC normally used as solvents, diluents, thinners, inks, colorants, paints, lacquers, enamels, varnishes, liquid resins, or other surface coatings and having individual capacities of 2,000 gallons (7.6 cubic meters) or less;

(6) ✓ First aid and emergency medical care provided at the facility, including related activities such as sterilization and medicine preparation used in support of a manufacturing or production process;

(7) ✓ Comfort air conditioning subject to requirements of Title VI of the Clean Air Act;

(8) ✓ Natural draft hoods or natural draft ventilators that exhaust air pollutants into the ambient air from manufacturing/industrial or commercial processes;

(9) ✓ Laboratory fume hoods and vents;

(10) any other emissions unit, not listed in this section, with a potential to emit less than the "de minimus" levels listed in COMAR 26.11.02.10X (list and describe units):

No. 4 Storage Silos for lime and activated carbon used as reagents in air pollution control devices

No. 3 Wet scrubbers used for ventilation of ash handling area, ash loadout area, and ash trommel area.

No. 1 Ash house ventilation fan equipped with particulate filter used as needed for ventilation of ash building housing the ash bunker..

## STATE ONLY ENFORCEABLE REQUIREMENTS

This section of the permit contain state-only enforceable requirements. The requirements in this section will not be enforced by the U.S. Environmental Protection Agency. The requirements in this section are not subject to COMAR 26.11.03 10 - Public Petitions for Review to EPA Regarding Part 70 Permits.

The Permittee is subject to the following State-only enforceable requirements:

1. Applicable Regulations:

   (A) COMAR 26.11.06.08 and 26.11.06.09, which generally prohibit the discharge of emissions beyond the property line in such a manner that a nuisance or air pollution is created.

   (B) COMAR 26.11.15.05, which requires that the Permittee implement "Best Available Control Technology for Toxics" (T – BACT) to control emissions of toxic air pollutants.

   (C) COMAR 26.11.15.06, which prohibits the discharge of toxic air pollutants to the extent that such emissions will unreasonably endanger human health

2. Monitoring Requirements:

   A. The Permittee shall monitor the material in its waste stream in accordance with Department approved procedures to comply with the following waste restrictions:

      i. Municipal Solid Waste may include certain `solid waste generated from industrial, institutional, and commercial facilities such as trimmings, off-specification products, and similar materials. Hazardous wastes, and infectious medical wastes must be excluded.

      ii. Infectious waste may not be stored, burned, or disposed of at this facility; and

      iii. Off-spec and outdated pharmaceuticals may be burned at the facility provided that the burning does not cause a violation of any standard or operating requirement.

3. NOx Requirements for Large Municipal Waste Combustors (Effective: 12/6/18)

   A. COMAR 26.11.08.10A, which requires owners and operators of a Large MWC to minimize NOx emissions by operating and optimizing the use of all installed pollution control technology and combustion controls consistent with the technological limitations, manufacturers' specifications, good engineering and maintenance practices, and good air pollution control practices for minimizing emissions (as defined in 40 CFR §60.11(d)) for such equipment and the unit at all times the unit is in operation, including periods of startup and shutdown.

   B. COMAR 26.11.08.10B, as of May 1, 2019, the owner or operator of a Large MWC shall meet the following applicable NOx emission rates, except for periods of startup and shutdown:

| Affected Sources | $NO_x$ 24-hour block average emission rate |
|---|---|
| Montgomery County Resource Recovery Facility | 140 ppmv |
| Wheelabrator Baltimore Inc. | 150 ppmv |

   C. COMAR 26.11.08.10C, as of May 1, 2020, the owner or operator of a Large MWC shall meet the requirements of §B of this regulation and the following applicable NOx emission rates, except for periods of startup and shutdown:

| Affected Sources | $NO_x$ 30-day rolling average emission rate |
|---|---|
| Montgomery County Resource Recovery Facility | 105 ppmv |
| Wheelabrator Baltimore Inc. | 145 ppmv |

   D. COMAR 26.11.08.10D(2), as of May 1, 2019, a facility-wide NOx emission limit of 252 lbs./hr. timed average mass loading over a 24-hour period shall apply during periods of startup and shutdown for Wheelabrator Baltimore Inc.

   E. COMAR 26.11.08.10E, <u>Additional NOx Emission Control Requirements</u>.

      i. Not later than January 1, 2020, the owner or operator of Wheelabrator Baltimore Inc. shall submit a feasibility analysis for

additional control of NOx emissions from the Wheelabrator Baltimore Inc. facility to the Department. This analysis shall be prepared by an independent third party and include the following:

a. A written narrative and schematics detailing existing facility operations, boiler design, NOx control technologies, and relevant emission performance;
b. A written narrative and schematics detailing various state-of-the-art NOx control technologies for achieving additional NOx emission reductions from existing MWCs, including technologies capable of achieving NOx emission levels comparable to those for a new source in consideration of the overall facility design at Wheelabrator Baltimore Inc.;
c. An analysis of whether each state-of-the-art control technology identified under §E(1)(b) of this regulation could technically be implemented at the Wheelabrator Baltimore Inc. facility;
d. Capital and operating costs, NOx emission benefits, and air quality impacts resulting from installation of each state-of-the-art control technology as identified under §E(1)(b) of this regulation; and
e. An estimated timeline for installation of each state-of-the-art control technology as identified under §E(1)(b) of this regulation which shall include design time, construction, operational testing, and start up.

ii. Upon written request, Wheelabrator Baltimore Inc. shall submit any other information that the Department determines is necessary to evaluate the feasibility analysis.

iii. Not later than January 1, 2020, based upon the results of the feasibility analysis as required under §E(1) of this regulation, the owner or operator of Wheelabrator Baltimore Inc. shall propose and submit a NOx 24-hour block average emission rate, NOx 30-day rolling average emission rate, and NOx mass loading emission limitation for periods of startup, shutdown and malfunction.

F. COMAR 26.11.08.10F, requires that the owner or operator of a Large MWC continuously monitor NOx emissions with a continuous emission monitoring system in accordance with COMAR 26.11.01.11.

G. COMAR 26.11.08.10G, not later than 45 days after the effective date of this regulation, the owner or operator of a Large MWC shall submit a plan to the Department and EPA for approval that demonstrates how the Large MWC will operate installed pollution control technology and combustion controls to meet the requirements of COMAR 26.11.08.10A. The plan shall summarize the data that will be collected to demonstrate compliance with COMAR 26.11.08.10A. The plan shall cover all modes of operation, including but not limited to normal operations, startup, and shutdown.

*Note: The Permittee submitted the plan for approval required by Condition G on January 22, 2019.*

H. COMAR 26.11.08.10H, beginning July 1, 2019, the owner or operator of a Large MWC shall submit a quarterly report to the Department containing:

i. Data, information, and calculations which demonstrate compliance with the NOx 24-hour block average emission rate as required in §B of this regulation;

ii. Data, information, and calculations, including NOx continuous emission monitoring data and stack flow data, which demonstrate compliance with the startup and shutdown mass NOx emission limits as required in §D of this regulation;

iii. Flagging of periods of startup and shutdown and exceedances of emission rates;

iv. NOx continuous emission monitoring data and total urea flow rate to the boiler averaged over a 1-hour period, in a Microsoft Excel format; and

v. Documented actions taken during periods of startup and shutdown in signed, contemporaneous operating logs.

I. COMAR 26.11.08.10I, beginning July 1, 2020, the quarterly report to be submitted pursuant to COMAR 26.11.08.10H of this regulation shall also include data, information, and calculations which demonstrate compliance with the NOx 30-day rolling average emission rate as required in COMAR 26.11.08.10C of this regulation.

J. COMAR 26.11.08.10J, no less than 2 weeks advance notice and the opportunity to observe activities shall be provided to the Department prior to any optimization procedure, including installation or operation of $NO_x$ emission control technology, for the express purpose of complying with the requirements of COMAR 26.11.08.10E(1).

K. COMAR 26.11.08.10K, which requires compliance with the $NO_x$ emission standards in COMAR 26.11.08.10B, C, and D shall be demonstrated with a continuous emission monitoring system.

L. COMAR 26.11.08.10M, Compliance with the $NO_x$ Mass Loading Emission Limitation for the Wheelabrator Baltimore Inc.

i. Compliance with the $NO_x$ mass loading emission limitation for periods of startup and shutdown in COMAR 26.11.08.10D(2) shall be demonstrated by calculating the 24-hour average of all hourly average $NO_x$ emission concentrations from continuous emission monitoring systems.

ii. The calculations in COMAR 26.11.08.10M(1) shall utilize the applicable Prevention of Significant Deterioration calculation methodology, for all the hours during the 3-hour startup or shutdown period and the remaining 21 hours of the 24-hour period.

4. Other State Only Enforceable Limits

A. Per a mutual agreement between the Permittee and the City of Baltimore, this source is subject to the following State-only enforceable air pollution control requirements:

i. The Permittee shall not exceed the facility-wide emissions limitations specified below:

a. Nitrogen Oxides (NOx) – 105 parts per million dry volume (ppmdv) at 7 percent oxygen on dry basis over a 30-day rolling average.

b. Sulfur Dioxide (SO2) – 18 ppmdv at 7 percent oxygen on dry basis over a 24-hour block geometric mean.

c. Dioxins and Furans – 2 nanograms TEQDF-WHO98* per dry standard cubic meter at 7 percent oxygen on dry basis.

d. Dioxins and Furans –15 nanograms per dry standard cubic meter (ng/dscm) at 7 percent oxygen on dry basis.

e. Mercury – 15 micrograms per dry standard cubic meter (µg/dscm) at 7 percent oxygen on dry basis.

f. Cadmium – 25 µg/dscm at 7 percent oxygen on dry basis.

g. Lead – 250 µg/dscm at 7 percent oxygen on dry basis.

ii. The Permittee shall comply with the emissions limitations above on and after December 31, 2023 unless this date is extended by the City because of an uncontrollable circumstance. The Department shall be notified no later than 30 days after this date is extended by the City.

iii. Compliance with the SO2 and NOx emissions limitations above shall be determined by continuous emission monitors (CEMS) already installed and operated in accordance with the requirements of the Title V Part 70 Federal Permit to Operate. Compliance with the emission limitations for Dioxins and Furans, Mercury, Cadmium and Lead in above shall be determined in accordance with the applicable sampling and analytical methods in the Title V Part 70 Federal Permit to Operate.

**WHEELABRATOR BALTIMORE, L.P.**
**1801 ANNAPOLIS ROAD**
**BALTIMORE, MD 21230**
**DRAFT PART 70 OPERATING PERMIT NO. 24-510-1886**


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## SECTION I SOURCE IDENTIFICATION

### 1. DESCRIPTION OF FACILITY

Wheelabrator Baltimore, L.P. (the "Company"), formerly known as Baltimore RESCO Company, L.P., operates a municipal solid waste resource recovery facility (SIC Code 4953). The facility consists of three large mass burn waterwall municipal waste combustors (MWC) each rated at 750 tons per day (TPD) yielding a facility wide capacity of 2,250 TPD. The steam that is generated by the MWCs is either sold to a steam distribution system or used to produce electricity via an on-site steam turbine.

Combustion gases are exhausted through a stack (Emission Point EP1) that contains three flues, one for each of the three MWCs. Each MWC train is equipped with an advanced selective non-catalytic reduction (ASNCR) system to control NOx emissions; a "slaked lime" spray dryer absorber (SDA) system to control acid gas emissions; an activated carbon injection system for enhanced mercury and dioxin/furan control; and a pulse jet fabric filter (FF) to control particulate matter and metals from the exhaust stream. Each stack is equipped with a continuous opacity monitoring system (COM) and continuous emission monitoring systems (CEMS) for monitoring the carbon monoxide (CO), sulfur dioxide ($SO_2$), and nitrogen oxides (NOx) emissions, as well as an oxygen ($O_2$) and carbon dioxide ($CO_2$) monitors for monitoring the stack gas dilution. Additionally, $SO_2$ and $O_2$ CEMS are located upstream of control devices for determining percent reduction of $SO_2$.

Three wet scrubbers are used to control particulate matter from the ash handling areas. One wet scrubber controls particulate emissions from the ash handling area vent. The second wet scrubber is used to control particulate matter from the ash loadout area vent. A third wet scrubber is used to control particulate emissions from the ash trommel area vent. All three wet scrubbers are operated on an as-needed basis to ensure that particulate matter is controlled from ash handling areas.

Other registered equipment at this facility include three (3) lime storage silos equipped with a common bin vent filter, and one (1) activated carbon storage silo equipped with a bin vent bag filter. Both silos dispense their respective materials into a closed system that minimizes the potential for fugitive emissions.

The ash handling areas and the storage silos have a potential to emit for particulate matter of less than 1 ton per year. Consequently, for the purposes of the Company's Part 70 permit, these sources have been listed in the insignificant activities section of the permit.

## 2. FACILITY INVENTORY LIST

| Emissions Unit Number | MDE - ARA Registration Number | Emissions Unit Name and Description | Date of Installation |
|---|---|---|---|
| EU - 1 | 510-1886-2-0255 | One (1) 750 TPD Wheelabrator-Frye mass burn waterwall municipal waste combustor equipped with an Advanced Selective Non-Catalytic Reduction (ASNCR) NOx control system; a "slaked lime" spray dryer absorber (SDA) system; a pulse jet fabric filter (FF); and an activated carbon injection system. Modified to replace the ESP with a pulse jet fabric filter (FF) and replace the existing Selective Non-Catalytic Reduction (SNCR) NOx control system with an Advanced Selective Non-Catalytic Reduction (ASNCR) $NO_X$ control system. | 1985 *Modified 2022* |
| EU - 2 | 510-1886-2-0256 | One (1) 750 TPD Wheelabrator-Frye mass burn waterwall municipal waste combustor equipped with an Advanced Selective Non-Catalytic Reduction (ASNCR) NOx control system; a "slaked lime" spray dryer absorber (SDA) system; a pulse jet fabric filter (FF); and an activated carbon injection system. Modified to replace the ESP with a pulse jet fabric filter (FF) and replace the existing Selective Non-Catalytic Reduction (SNCR) NOx control system with an Advanced Selective Non-Catalytic Reduction (ASNCR) $NO_X$ control system. | 1985 *Modified 2022* |
| EU - 3 | 510-1886-2-0257 | One (1) 750 TPD Wheelabrator-Frye mass burn waterwall municipal waste combustor equipped with an Advanced Selective Non-Catalytic Reduction (ASNCR) NOx control system; a "slaked lime" spray dryer absorber (SDA) system; a pulse jet fabric filter (FF); and an activated carbon injection system. Modified to replace the ESP with a pulse jet fabric filter (FF) and replace the existing Selective Non-Catalytic Reduction (SNCR) NOx control | 1985 *Modified 2022* |

| | | | |
|---|---|---|---|
| | | system with an Advanced Selective Non-Catalytic Reduction (ASNCR) $NO_X$ control system. | |

## SECTION II GENERAL CONDITIONS

### 1. DEFINITIONS

**[COMAR 26.11.01.01] and [COMAR 26.11.02.01]**

The words or terms in this Part 70 permit shall have the meanings established under COMAR 26.11.01 and .02 unless otherwise stated in this permit.

### 2. ACRONYMS

| | |
|---|---|
| ARA | Air and Radiation Administration |
| BACT | Best Available Control Technology |
| Btu | British thermal unit |
| CAA | Clean Air Act |
| CAM | Compliance Assurance Monitoring |
| CEM | Continuous Emissions Monitor |
| CFR | Code of Federal Regulations |
| CO | Carbon Monoxide |
| COMAR | Code of Maryland Regulations |
| EPA | United States Environmental Protection Agency |
| FR | Federal Register |
| gr | grains |
| HAP | Hazardous Air Pollutant |
| MACT | Maximum Achievable Control Technology |
| MDE | Maryland Department of the Environment |
| MVAC | Motor Vehicle Air Conditioner |
| NESHAPS | National Emission Standards for Hazardous Air Pollutants |
| $NO_x$ | Nitrogen Oxides |
| NSPS | New Source Performance Standards |
| NSR | New Source Review |
| OTR | Ozone Transport Region |
| PM | Particulate Matter |
| PM10 | Particulate Matter with Nominal Aerodynamic Diameter of 10 micrometers or less |
| ppm | parts per million |
| ppb | parts per billion |
| PSD | Prevention of Significant Deterioration |
| PTC | Permit to construct |
| PTO | Permit to operate (State) |
| SIC | Standard Industrial Classification |
| $SO_2$ | Sulfur Dioxide |

| | |
|---|---|
| TAP | Toxic Air Pollutant |
| tpy | tons per year |
| VE | Visible Emissions |
| VOC | Volatile Organic Compounds |

## 3. EFFECTIVE DATE

The effective date of the conditions in this Part 70 permit is the date of permit issuance, unless otherwise stated in the permit.

## 4. PERMIT EXPIRATION

**[COMAR 26.11.03.13B(2)]**

Upon expiration of this permit, the terms of the permit will automatically continue to remain in effect until a new Part 70 permit is issued for this facility provided that the Permittee has submitted a timely and complete application and has paid applicable fees under COMAR 26.11.02.16.

Otherwise, upon expiration of this permit the right of the Permittee to operate this facility is terminated.

## 5. PERMIT RENEWAL

**[COMAR 26.11.03.02B(3)] and [COMAR 26.11.03.02E]**

The Permittee shall submit to the Department a completed application for renewal of this Part 70 permit at least 12 months before the expiration of the permit. Upon submitting a completed application, the Permittee may continue to operate this facility pending final action by the Department on the renewal.

The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall submit such supplementary facts or corrected information no later than 10 days after becoming aware that this occurred. The Permittee shall also provide additional information as necessary to address any requirements that become applicable to the facility after the date a completed application was submitted, but prior to the release of a draft permit. This information shall be submitted to the Department no later than 20 days after a new requirement has been adopted.

## 6. CONFIDENTIAL INFORMATION

**[COMAR 26.11.02.02G]**

In accordance with the provisions of the State Government Article, Sec. 10-611 et seq., Annotated Code of Maryland, all information submitted in an application shall be considered part of the public record and available for inspection and copying, unless the Permittee claims that the information is confidential when it is submitted to the Department. At the time of the request for inspection or copying, the Department will make a determination with regard to the confidentiality of the information. The Permittee, when requesting confidentiality, shall identify the information in a manner specified by the Department and, when requested by the Department, promptly provide specific reasons supporting the claim of confidentiality. Information submitted to the Department without a request that the information be deemed confidential may be made available to the public. Subject to approval of the Department, the Permittee may provide a summary of confidential information that is suitable for public review. The content of this Part 70 permit is not subject to confidential treatment.

## 7. PERMIT ACTIONS

**[COMAR 26.11.03.06E(3)] and [COMAR 26.11.03.20(A)]**

This Part 70 permit may be revoked or reopened and revised for cause. The filing of an application by the Permittee for a permit revision or renewal; or a notification of termination, planned changes or anticipated noncompliance by the facility, does not stay a term or condition of this permit.

The Department shall reopen and revise, or revoke the Permittee's Part 70 permit under the following circumstances:

a. Additional requirements of the Clean Air Act become applicable to this facility and the remaining permit term is 3 years or more;

b. The Department or the EPA determines that this Part 70 permit contains a material mistake, or is based on false or inaccurate information supplied by or on behalf of the Permittee;

c. The Department or the EPA determines that this Part 70 permit must be revised or revoked to assure compliance with applicable requirements of the Clean Air Act; or

d. Additional requirements become applicable to an affected source under the Federal Acid Rain Program.

## 8. PERMIT AVAILABILITY

**[COMAR 26.11.02.13G]**

The Permittee shall maintain this Part 70 permit in the vicinity of the facility for which it was issued, unless it is not practical to do so, and make this permit immediately available to officials of the Department upon request.

## 9. REOPENING THE PART 70 PERMIT FOR CAUSE BY THE EPA

**[COMAR 26.11.03.20B]**

The EPA may terminate, modify, or revoke and reissue a permit for cause as prescribed in 40 CFR §70.7(g)

## 10. TRANSFER OF PERMIT

**[COMAR 26.11.02.02E]**

The Permittee shall not transfer this Part 70 permit except as provided in COMAR 26.11.03.15.

## 11. REVISION OF PART 70 PERMITS – GENERAL CONDITIONS

**[COMAR 26.11.03.14] and [COMAR 26.11.03.06A(8)]**

a. The Permittee shall submit an application to the Department to revise this Part 70 permit when required under COMAR 26.11.03.15 -.17.

b. When applying for a revision to a Part 70 permit, the Permittee shall comply with the requirements of COMAR 26.11.03.02 and .03 except that the application for a revision need include only information listed that is related to the proposed change to the source and revision to

the permit. This information shall be sufficient to evaluate the proposed change and to determine whether it will comply with all applicable requirements of the Clean Air Act.

c. The Permittee may not change any provision of a compliance plan or schedule in a Part 70 permit as an administrative permit amendment or as a minor permit modification unless the change has been approved by the Department in writing.

d. A permit revision is not required for a change that is provided for in this permit relating to approved economic incentives, marketable permits, emissions trading, and other similar programs.

## 12. SIGNIFICANT PART 70 OPERATING PERMIT MODIFICATIONS

**[COMAR 26.11.03.17]**

The Permittee may apply to the Department to make a significant modification to its Part 70 Permit as provided in COMAR 26.11.03.17 and in accordance with the following conditions:

a. A significant modification is a revision to the federally enforceable provisions in the permit that does not qualify as an administrative permit amendment under COMAR 26.11.03.15 or a minor permit modification as defined under COMAR 26.11.03.16.

b. This permit does not preclude the Permittee from making changes, consistent with the provisions of COMAR 26.11.03, that would make the permit or particular terms and conditions of the permit irrelevant, such as by shutting down or reducing the level of operation of a source or of an emissions unit within the source. Air pollution control equipment shall not be shut down or its level of operation reduced if doing so would violate any term of this permit.

c. Significant permit modifications are subject to all requirements of COMAR 26.11.03 as they apply to permit issuance and renewal, including the requirements for applications, public participation, and review by affected states and EPA, except:

(1) An application need include only information pertaining to the proposed change to the source and modification of this permit, including a description of the change and modification, and any

new applicable requirements of the Clean Air Act that will apply if the change occurs;

(2) Public participation, and review by affected states and EPA, is limited to only the application and those federally enforceable terms and conditions of the Part 70 permit that are affected by the significant permit modification.

d. As provided in COMAR 26.11.03.15B(5), an administrative permit amendment may be used to make a change that would otherwise require a significant permit modification if procedures for enhanced preconstruction review of the change are followed that satisfy the requirements of 40 CFR 70.7(d)(1)(v).

e. Before making a change that qualifies as a significant permit modification, the Permittee shall obtain all permits-to-construct and approvals required by COMAR 26.11.02.

f. The Permittee shall not make a significant permit modification that results in a violation of any applicable requirement of the Clean Air Act.

g. The permit shield in COMAR 26.11.03.23 applies to a final significant permit modification that has been issued by the Department, to the extent applicable under COMAR 26.11.03.23.

## 13. MINOR PERMIT MODIFICATIONS

**[COMAR 26.11.03.16]**

The Permittee may apply to the Department to make a minor modification to the federally enforceable provisions of this Part 70 permit as provided in COMAR 26.11.03.16 and in accordance with the following conditions:

a. A minor permit modification is a Part 70 permit revision that:

(1) Does not result in a violation of any applicable requirement of the Clean Air Act;

(2) Does not significantly revise existing federally enforceable monitoring, including test methods, reporting, record keeping, or compliance certification requirements except by:

(a) Adding new requirements,

(b) Eliminating the requirements if they are rendered meaningless because the emissions to which the requirements apply will no longer occur, or

(c) Changing from one approved test method for a pollutant and source category to another;

(3) Does not require or modify a:

(a) Case-by-case determination of a federally enforceable emissions standard,

(b) Source specific determination for temporary sources of ambient impacts, or

(c) Visibility or increment analysis;

(4) Does not seek to establish or modify a federally enforceable permit term or condition for which there is no corresponding underlying applicable requirement of the Clean Air Act, but that the Permittee has assumed to avoid an applicable requirement to which the source would otherwise be subject, including:

(a) A federally enforceable emissions standard applied to the source pursuant to COMAR 26.11.02.03 to avoid classification as a Title I modification; and

(b) An alternative emissions standard applied to an emissions unit pursuant to regulations promulgated under Section 112(i)(5) of the Clean Air Act

(5) Is not a Title I modification; and

(6) Is not required under COMAR 26.11.03.17 to be processed as a significant modification to this Part 70 permit.

b. Application for a Minor Permit Modification

The Permittee shall submit to the Department an application for a minor permit modification that satisfies the requirements of COMAR 26.11.03.03 which includes the following:

(1) A description of the proposed change, the emissions resulting from the change, and any new applicable requirements that will apply if the change is made;

(2) The proposed minor permit modification;

(3) Certification by a responsible official, in accordance with COMAR 26.11.02.02F, that:

(a) The proposed change meets the criteria for a minor permit modification, and

(b) The Permittee has obtained or applied for all required permits-to-construct required by COMAR 26.11.03.16 with respect to the proposed change;

(4) Completed forms for the Department to use to notify the EPA and affected states, as required by COMAR 26.11.03.07-.12.

c. Permittee's Ability to Make Change

(1) For changes proposed as minor permit modifications to this permit that will require the applicant to obtain a permit to construct, the permit to construct must be issued prior to the new change.

(2) During the period of time after the Permittee applies for a minor modification but before the Department acts in accordance with COMAR 26.11.03.16F(2):

(a) The Permittee shall comply with applicable requirements of the Clean Air Act related to the change and the permit terms and conditions described in the application for the minor modification.

(b) The Permittee is not required to comply with the terms and conditions in the permit it seeks to modify. If the Permittee fails to comply with the terms and conditions in the application during this time, the terms and conditions of both this permit and the application for modification may be enforced against it.

d. The Permittee is subject to enforcement action if it is determined at any time that a change made under COMAR 26.11.03.16 is not within the scope of this regulation.

e. Minor permit modification procedures may be used for Part 70 permit modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches, but only to the extent that the minor permit modification procedures are explicitly provided for in regulations approved by the EPA as part of the Maryland SIP or in other applicable requirements of the Clean Air Act.

## 14. ADMINISTRATIVE PART 70 OPERATING PERMIT AMENDMENTS

**[COMAR 26.11.03.15]**

The Permittee may apply to the department to make an administrative permit amendment as provided in COMAR 26.11.03.15 and in accordance with the following conditions:

a. An application for an administrative permit amendment shall:

(1) Be in writing;

(2) Include a statement certified by a responsible official that the proposed amendment meets the criteria in COMAR 26.11.03.15 for an administrative permit amendment, and

(3) Identify those provisions of this part 70 permit for which the amendment is requested, including the basis for the request.

b. An administrative permit amendment:

(1) Is a correction of a typographical error;

(2) Identifies a change in the name, address, or phone number of a person identified in this permit, or a similar administrative change involving the Permittee or other matters which are not directly related to the control of air pollution;

(3) requires more frequent monitoring or reporting by the Permittee;

(4) Allows for a change in ownership or operational control of a source for which the Department determines that no other revision to the permit is necessary and is documented as per COMAR 26.11.03.15B(4);

(5) Incorporates into this permit the requirements from preconstruction review permits or approvals issued by the Department in accordance with COMAR 26.11.03.15B(5), but only if it satisfies 40 CFR 70.7(d)(1)(v);

(6) Incorporates any other type of change, as approved by the EPA, which is similar to those in COMAR 26.11.03.15B(1)—(4);

(7) Notwithstanding COMAR 26.11.03.15B(1)—(6), all modifications to acid rain control provisions included in this Part 70 permit are governed by applicable requirements promulgated under Title IV of the Clean Air Act; or

(8) Incorporates any change to a term or condition specified as State-only enforceable, if the Permittee has obtained all necessary permits-to-construct and approvals that apply to the change.

c. The Permittee may make the change addressed in the application for an administrative amendment upon receipt by the Department of the application, if all permits-to-construct or approvals otherwise required by COMAR 26.11.02 prior to making the change have first been obtained from the Department.

d. The permit shield in COMAR 26.11.03.23 applies to administrative permit amendments made under Section B(5) of COMAR 26.11.03.15 , but only after the Department takes final action to revise the permit.

e. The Permittee is subject to enforcement action if it is determined at any time that a change made under COMAR 26.11.03.15 is not within the scope of this regulation.

## 15. OFF-PERMIT CHANGES TO THIS SOURCE

**[COMAR 26.11.03.19]**

The Permittee may make off-permit changes to this facility as provided in COMAR 26.11.03.19 and in accordance with the following conditions:

a. The Permittee may make a change to this permitted facility that is not addressed or prohibited by the federally enforceable conditions of this Part 70 permit without obtaining a Part 70 permit revision if:

(1) The Permittee has obtained all permits and approvals required by COMAR 26.11.02 and .03;

(2) The change is not subject to any requirements under Title IV of the Clean Air Act;

(3) The change is not a Title I modification; and

(4) The change does not violate an applicable requirement of the Clean Air Act or a federally enforceable term or condition of the permit.

b. For a change that qualifies under COMAR 26.11.03.19, the Permittee shall provide contemporaneous written notice to the Department and the EPA, except for a change to an emissions unit or activity that is exempt from the Part 70 permit application, as provided in COMAR 26.11.03.04. This written notice shall describe the change, including the date it was made, any change in emissions, including the pollutants emitted, and any new applicable requirements of the Clean Air Act that apply as a result of the change.

c. Upon satisfying the requirements of COMAR 26.11.03.19, the Permittee may make the proposed change.

d. The Permittee shall keep a record describing:

(1) Changes made at the facility that result in emissions of a regulated air pollutant subject to an applicable requirement of the Clean Air Act , but not otherwise regulated under this permit; and

(2) The emissions resulting from those changes.

e. Changes that qualify under COMAR 26.11.03.19 are not subject to the requirements for Part 70 revisions.

f. The Permittee shall include each off-permit change under COMAR 26.11.03.19 in the application for renewal of the part 70 permit.

g. The permit shield in COMAR 26.11.03.23 does not apply to off-permit changes made under COMAR 26.11.03.19.

h. The Permittee is subject to enforcement action if it is determined that an off-permit change made under COMAR 26.11.03.19 is not within the scope of this regulation.

## 16. ON-PERMIT CHANGES TO SOURCES

**[COMAR 26.11.03.18]**

The Permittee may make on-permit changes that are allowed under Section 502(b)(10) of the Clean Air Act as provided in COMAR 26.11.03.18 and in accordance with the following conditions:

a. The Permittee may make a change to this facility without obtaining a revision to this Part 70 permit if:

(1) The change is not a Title I modification;

(2) The change does not result in emissions in excess of those expressly allowed under the federally enforceable provisions of the Part 70 permit for the permitted facility or for an emissions unit within the facility, whether expressed as a rate of emissions or in terms of total emissions;

(3) The Permittee has obtained all permits and approvals required by COMAR 26.11.02 and .03;

(4) The change does not violate an applicable requirement of the Clean Air Act;

(5) The change does not violate a federally enforceable permit term or condition related to monitoring, including test methods, record keeping, reporting, or compliance certification requirements;

(6) The change does not violate a federally enforceable permit term or condition limiting hours of operation, work practices, fuel usage, raw material usage, or production levels if the term or condition has been established to limit emissions allowable under this permit;

(7) If applicable, the change does not modify a federally enforceable provision of a compliance plan or schedule in this Part 70 permit unless the Department has approved the change in writing; and

(8) This permit does not expressly prohibit the change under COMAR 26.11.03.18.

b. The Permittee shall notify the Department and the EPA in writing of a proposed on-permit change under COMAR 26.11.03.18 not later than 7 days before the change is made. The written information shall include the following information:

(1) A description of the proposed change;

(2) The date on which the change is proposed to be made;

(3) Any change in emissions resulting from the change, including the pollutants emitted;

(4) Any new applicable requirement of the Clean Air Act; and

(5) Any permit term or condition that would no longer apply.

c. The responsible official of this facility shall certify in accordance with COMAR 26.11.02.02F that the proposed change meets the criteria for the use of on-permit changes under COMAR 26.11.03.18.

d. The Permittee shall attach a copy of each notice required by condition b. above to this Part 70 permit.

e. On-permit changes that qualify under COMAR 26.11.03.18 are not subject to the requirements for part 70 permit revisions.

f. Upon satisfying the requirements under COMAR 26.11.03.18, the Permittee may make the proposed change.

g. The permit shield in COMAR 26.11.03.23 does not apply to on-permit changes under COMAR 26.11.03.18.

h. The Permittee is subject to enforcement action if it is determined that an on-permit change made under COMAR 26.11.03.18 is not within the scope of the regulation or violates any requirement of the State air pollution control law.

## 17. FEE PAYMENT

**[COMAR 26.11.02.16A(2) & (5)(b)]**

a. The fee for this Part 70 permit is as prescribed in Regulation .19 of COMAR 26.11.02.

b. The fee is due on and shall be paid on or before each 12-month anniversary date of the permit.

c. Failure to pay the annual permit fee constitutes cause for revocation of the permit by the Department.

## 18. REQUIREMENTS FOR PERMITS-TO-CONSTRUCT AND APPROVALS

**[COMAR 26.11.02.09.]**

The Permittee may not construct or modify or cause to be constructed or modified any of the following sources without first obtaining, and having in current effect, the specified permits-to-construct and approvals:

a. New Source Review source, as defined in COMAR 26.11.01.01, approval required, except for generating stations constructed by electric companies;

b. Prevention of Significant Deterioration source, as defined in COMAR 26.11.01.01, approval required, except for generating stations constructed by electric companies;

c. New Source Performance Standard source, as defined in COMAR 26.11.01.01, permit to construct required, except for generating stations constructed by electric companies;

d. National Emission Standards for Hazardous Air Pollutants source, as defined in COMAR 26.11.01.01, permit to construct required, except for generating stations constructed by electric companies;

e. A stationary source of lead that discharges one ton per year or more of lead or lead compounds measured as elemental lead, permit to construct required, except for generating stations constructed by electric companies;

f. All stationary sources of air pollution, including installations and air pollution control equipment, except as listed in COMAR 26.11.02.10, permit to construct required;

g. In the event of a conflict between the applicability of (a.— e.) above and an exemption listed in COMAR 26.11.02.10, the provision that requires a permit applies.

h. Approval of a PSD or NSR source by the Department does not relieve the Permittee obtaining an approval from also obtaining all permits-to-construct required by (c.— g.) above.

## 19. CONSOLIDATION OF PROCEDURES FOR PUBLIC PARTICIPATION

**[COMAR 26.11.02.11C] and [COMAR 26.11.03.01K]**

The Permittee may request the Department to authorize special procedures for the Permittee to apply simultaneously, to the extent possible, for a permit to construct and a revision to this permit.

These procedures may provide for combined public notices, informational meetings, and public hearings for both permits but shall not adversely affect the rights of a person, including EPA and affected states, to obtain information about the application for a permit, to comment on an application, or to challenge a permit that is issued.

These procedures shall not alter any existing permit procedures or time frames.

## 20. PROPERTY RIGHTS

**[COMAR 26.11.03.06E(4)]**

This Part 70 permit does not convey any property rights of any sort, or any exclusive privileges.

## 21. SEVERABILITY

**[COMAR 26.11.03.06A(5)]**

If any portion of this Part 70 permit is challenged, or any term or condition deemed unenforceable, the remainder of the requirements of the permit continues to be valid.

## 22. INSPECTION AND ENTRY

**[COMAR 26.11.03.06G(3)]**

The Permittee shall allow employees and authorized representatives of the Department, the EPA, and local environmental health agencies, upon presentation of credentials or other documents as may be required by law, to:

a. Enter at a reasonable time without delay and without prior notification the Permittee's property where a Part 70 source is located, emissions-related activity is conducted, or records required by this permit are kept;

b. Have access to and make copies of records required by the permit;

c. Inspect all emissions units within the facility subject to the permit and all related monitoring systems, air pollution control equipment, and practices or operations regulated or required by the permit; and

d. Sample or monitor any substances or parameters at or related to the emissions units at the facility for the purpose of determining compliance with the permit.

## 23. DUTY TO PROVIDE INFORMATION

**[COMAR 26.11.03.06E(5)]**

The Permittee shall furnish to the Department, within a reasonable time specified by the Department, information requested in writing by the Department in order to determine whether the Permittee is in compliance with the federally enforceable conditions of this Part 70 permit, or whether cause exists for revising or revoking the permit. Upon request, the Permittee shall also furnish to the Department records required to be kept under the permit.

For information claimed by the Permittee to be confidential and therefore potentially not discloseable to the public, the Department may require the Permittee to provide a copy of the records directly to the EPA along with a claim of confidentiality.

The Permittee shall also furnish to the Department, within a reasonable time specified by the Department, information or records requested in writing by the Department in order to determine if the Permittee is in compliance with the State-only enforceable conditions of this permit.

## 24. COMPLIANCE REQUIREMENTS

**[COMAR 26.11.03.06E(1)] and [COMAR 26.11.03.06A(11)] and [COMAR 26.11.02.05]**

The Permittee shall comply with the conditions of this Part 70 permit. Noncompliance with the permit constitutes a violation of the Clean Air Act, and/or the Environment Article Title 2 of the Annotated Code of Maryland and may subject the Permittee to:

a. Enforcement action,

b. Permit revocation or revision,

c. Denial of the renewal of a Part 70 permit, or

d. Any combination of these actions.

The conditions in this Part 70 permit are enforceable by EPA and citizens under the Clean Air Act except for the State-only enforceable conditions.

Under Environment Article Section 2-609, Annotated Code of Maryland, the Department may seek immediate injunctive relief against a person who violates this permit in such a manner as to cause a threat to human health or the environment.

## 25. CREDIBLE EVIDENCE

Nothing in this permit shall be interpreted to preclude the use of credible evidence to demonstrate noncompliance with any term of this permit.

## 26. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE

**[COMAR 26.11.03.06E(2)]**

The need to halt or reduce activity in order to comply with the conditions of this permit may not be used as a defense in an enforcement action.

## 27. CIRCUMVENTION

**[COMAR 26.11.01.06]**

The Permittee may not install or use any article, machine, equipment or other contrivance, the use of which, without resulting in a reduction in the total weight of emissions, conceals or dilutes emissions which would otherwise constitute a violation of any applicable air pollution control regulation.

## 28. PERMIT SHIELD

**[COMAR 26.11.03.23]**

A permit shield as described in COMAR 26.11.03.23 shall apply only to terms and conditions in this Part 70 permit that have been specifically identified as covered by the permit shield. Neither this permit nor COMAR 26.11.03.23 alters the following:

a. The emergency order provisions in Section 303 of the Clean Air Act, including the authority of EPA under that section;

b. The liability of the Permittee for a violation of an applicable requirement of the Clean Air Act before or when this permit is issued or for a violation that continues after issuance;

c. The requirements of the Acid Rain Program, consistent with Section 408(a) of the Clean Air Act;

d. The ability of the Department or EPA to obtain information from a source pursuant to Maryland law and Section 114 of the Clean Air Act; or

e. The authority of the Department to enforce an applicable requirement of the State air pollution control law that is not an applicable requirement of the Clean Air Act.

## 29. ALTERNATE OPERATING SCENARIOS

**[COMAR 26.11.03.06A(9)]**

For all alternate operating scenarios approved by the Department and contained within this permit, the Permittee, while changing from one approved scenario to another, shall contemporaneously record in a log maintained at the facility each scenario under which the emissions unit is operating and the date and time the scenario started and ended.

## SECTION III PLANT WIDE CONDITIONS

### 1. PARTICULATE MATTER FROM CONSTRUCTION AND DEMOLITION

**[COMAR 26.11.06.03D]**

The Permittee shall not cause or permit any building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne.

### 2. OPEN BURNING

**[COMAR 26.11.07]**

Except as provided in COMAR 26.11.07.04, the Permittee shall not cause or permit an open fire from June 1 through August 31 of any calendar year. Prior to any open burning, the Permittee shall request and receive approval from the Department.

### 3. AIR POLLUTION EPISODE

**[COMAR 26.11.05.04]**

When requested by the Department, the Permittee shall prepare in writing standby emissions reduction plans, consistent with good industrial practice and safe operating procedures, for reducing emissions creating air pollution during periods of Alert, Warning, and Emergency of an air pollution episode.

### 4. REPORT OF EXCESS EMISSIONS AND DEVIATIONS

**[COMAR 26.11.01.07] and [COMAR 26.11.03.06C(7)]**

The Permittee shall comply with the following conditions for occurrences of excess emissions and deviations from requirements of this permit, including those in Section VI – State-only Enforceable Conditions:

a. Report any deviation from permit requirements that could endanger human health or the environment, by orally notifying the Department immediately upon discovery of the deviation;

b. Promptly report all occurrences of excess emissions that are expected to last for one hour or longer by orally notifying the Department of the onset and termination of the occurrence;

c. When requested by the Department the Permittee shall report all deviations from permit conditions, including those attributed to malfunctions as defined in COMAR 26.11.01.07A, within 5 days of the request by submitting a written description of the deviation to the Department. The written report shall include the cause, dates and times of the onset and termination of the deviation, and an account of all actions planned or taken to reduce, eliminate, and prevent recurrence of the deviation;

d. The Permittee shall submit to the Department semi-annual monitoring reports that confirm that all required monitoring was performed, and that provide accounts of all deviations from permit requirements that occurred during the reporting periods. Reporting periods shall be January 1 through June 30 and July 1 through December 31, and reports shall be submitted within 30 days of the end of each reporting period. Each account of deviation shall include a description of the deviation, the dates and times of onset and termination, identification of the person who observed or discovered the deviation, causes and corrective actions taken, and actions taken to prevent recurrence. If no deviations from permit conditions occurred during a reporting period, the Permittee shall submit a written report that so states.

e. When requested by the Department, the Permittee shall submit a written report to the Department within 10 days of receiving the request concerning an occurrence of excess emissions. The report shall contain the information required in COMAR 26.11.01.07D(2).

## 5. ACCIDENTAL RELEASE PROVISIONS

**[COMAR 26.11.03.03B(23)] and [40 CFR 68]**

Should the Permittee become subject to 40 CFR 68 during the term of this permit, the Permittee shall submit risk management plans by the date specified in 40 CFR 68.150 and shall certify compliance with the requirements of 40 CFR 68 as part of the annual compliance certification as required by 40 CFR 70.

The Permittee shall initiate a permit revision or reopening according to the procedures of 40 CFR 70.7 to incorporate appropriate permit conditions into the Permittee's Part 70 permit.

## 6. GENERAL TESTING REQUIREMENTS

**[COMAR 26.11.01.04]**

The Department may require the Permittee to conduct, or have conducted, testing to determine compliance with this Part 70 permit. The Department, at its option, may witness or conduct these tests. This testing shall be done at a reasonable time, and all information gathered during a testing operation shall be provided to the Department.

## 7. EMISSIONS TEST METHODS

**[COMAR 26.11.01.04]**

Compliance with the emissions standards and limitations in this Part 70 permit shall be determined by the test methods designated and described below or other test methods submitted to and approved by the Department.

Reference documents of the test methods approved by the Department include the following:

a. 40 CFR 60, appendix A

b. 40 CFR 51, appendix M

c. The Department's Technical Memorandum 91-01 "Test Methods and Equipment Specifications for Stationary Sources", (January 1991), as amended through Supplement 3, (October 1, 1997)

## 8. EMISSIONS CERTIFICATION REPORT

**[COMAR 26.11.01.05-1] and [COMAR 26.11.02.19C] and [COMAR 26.11.02.19D]**

The Permittee shall certify actual annual emissions of regulated pollutants from the facility on a calendar year basis.

a. The certification shall be on forms obtained from the Department and submitted to the Department not later than April 1 of the year following the year for which the certification is required;

b. The individual making the certification shall certify that the information is accurate to the individual's best knowledge. The individual shall be:

(1) Familiar with each source for which the certifications forms are submitted, and

(2) Responsible for the accuracy of the emissions information;

c. The Permittee shall maintain records necessary to support the emissions certification including the following information if applicable:

(1) The total amount of actual emissions of each regulated pollutant and the total of all regulated pollutants;

(2) An explanation of the methods used to quantify the emissions and the operating schedules and production data that were used to determine emissions, including significant assumptions made;

(3) Amounts, types and analyses of all fuels used;

(4) Emissions data from continuous emissions monitors that are required by this permit, including monitor calibration and malfunction information;

(5) Identification, description, and use records of all air pollution control equipment and compliance monitoring equipment including:

(a) Significant maintenance performed,
(b) Malfunctions and downtime, and
(c) Episodes of reduced efficiency of all equipment;

(6) Limitations on source operation or any work practice standards that significantly affect emissions; and

(7) Other relevant information as required by the Department.

## 9. COMPLIANCE CERTIFICATION REPORT

**[COMAR 26.11.03.06G(6) and (7)]**

The Permittee shall submit to the Department and EPA Region III a report certifying compliance with each term of this Part 70 permit including each applicable standard, emissions limitation, and work practice for the previous calendar year by April 1 of each year.

a. The compliance certification shall include:

(1) The identification of each term or condition of this permit which is the basis of the certification;

(2) The compliance status;

(3) Whether the compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of each source, currently and over the reporting period; and

(5) Any other information required to be reported to the Department that is necessary to determine the compliance status of the Permittee with this permit.

b. The Permittee shall submit the compliance certification reports to the Department and EPA simultaneously.

## 10. CERTIFICATION BY RESPONSIBLE OFFICIAL

**[COMAR 26.11.02.02F]**

All application forms, reports, and compliance certifications submitted pursuant to this permit shall be certified by a responsible official as to truth, accuracy, and completeness. The Permittee shall expeditiously notify the Department of an appointment of a new responsible official.

The certification shall be in the following form:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system

designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

## 11. SAMPLING AND EMISSIONS TESTING RECORD KEEPING

**[COMAR 26.11.03.06C(5)]**

The Permittee shall gather and retain the following information when sampling and testing for compliance demonstrations:

a. The location as specified in this permit, and the date and time that samples and measurements are taken;

b. All pertinent operating conditions existing at the time that samples and measurements are taken;

c. The date that each analysis of a sample or emissions test is performed and the name of the person taking the sample or performing the emissions test;

d. The identity of the Permittee, individual, or other entity that performed the analysis;

e. The analytical techniques and methods used; and

f. The results of each analysis.

## 12. GENERAL RECORDKEEPING

**[COMAR 26.11.03.06C(6)]**

The Permittee shall retain records of all monitoring data and information that support the compliance certification for a period of five (5) years from the date that the monitoring, sample measurement, application, report or emissions test was completed or submitted to the Department.

These records and support information shall include:

a. All calibration and maintenance records;

b. All original data collected from continuous monitoring instrumentation;

c. Records which support the annual emissions certification; and

d. Copies of all reports required by this permit.

## 13. GENERAL CONFORMITY

**[COMAR 26.11.26.09]**

The Permittee shall comply with the general conformity requirements of 40 CFR 93, Subpart B and COMAR 26.11.26.09.

## 14. ASBESTOS PROVISIONS

**[40 CFR 61, Subpart M]**

The Permittee shall comply with 40 CFR 61, Subpart M when conducting any renovation or demolition activities at the facility.

## 15. OZONE DEPLETING REGULATIONS

**[40 CFR 82, Subpart F]**

The Permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for MVACs in subpart B:

a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the prohibitions and required practices pursuant to 40 CFR 82.154 and 82.156.

b. Equipment used during the maintenance, service, repair or disposal of appliances shall comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

c. Persons performing maintenance, service, repairs or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.

d. Persons disposing of small appliances, MVACS, and MVAC-like appliances as defined in 40 CFR 82.152, shall comply with record keeping requirements pursuant to 40 CFR 82.155.

e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.

f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

## 16. ACID RAIN PERMIT

Not applicable

## SECTION IV PLANT SPECIFIC CONDITIONS

This section provides tables that include the emissions standards, emissions limitations, and work practices applicable to each emissions unit located at this facility. The Permittee shall comply with all applicable emissions standards, emissions limitations and work practices included herein.

The tables also include testing, monitoring, record keeping and reporting requirements specific to each emissions unit. In addition to the requirements included here in **Section IV**, the Permittee is also subject to the general testing, monitoring, record keeping and reporting requirements included in **Section III – Plant Wide Conditions** of this permit.

Unless otherwise provided in the specific requirements for an emissions unit, the Permittee shall maintain at the facility for at least five (5) years, and shall make available to the Department upon request, all records that the Permittee is required under this section to establish. [**Authority: COMAR 26.11.03.06C(5)(g)]**

| Table IV – 1 | |
|---|---|
| **1.0** | **Emissions Unit Number(s): EU-1 thru EU-3, Municipal Waste Combustors**<br><br>Three (3) identical Wheelabrator-Frye 750 TPD mass burn waterwall municipal waste combustors, each rated at 750 tons per day. Each unit is equipped with the following air pollution control devices: an Advanced Selective Non-Catalytic Reduction (ASNCR) system for NOx removal; a "slaked lime" spray dryer absorber (SDA) system for acid gas removal; an activated carbon injection system for the removal of mercury and dioxins/furans; and a pulse jet fabric filter (FF) for control of particulate matter and metals in the flue gas. (**MDE Registration No. 510-1886-2-0255, 2-0256, and 2-0257**) |
| **1.1** | **Applicable Standards/Limits:**<br><br>**Applicable Standards/Limits:**<br><br>A. **Existing Large MWC Emission Limits**<br><br>1. The Permittee shall comply with the existing Large MWC emissions limits and operational standards found in Table IV-1A that follows this table. **[Reference: COMAR 26.11.08.08A(1)]** |

**Table IV – 1**

2. The standards in COMAR 26.11.08.08A(2) apply at all times except during periods of startup, shutdown, or malfunction as provided in 40 CFR §60.58b(a). **[Reference: COMAR 26.11.08.08A(3)]**

   a. Duration of start-up, shutdown, or malfunction period are limited to 3 hours per occurrence, except for carbon monoxide, where the malfunction period may be extended to 15 hours when loss of boiler water level control (e.g., tube failure) or combustion air control (e.g. loss of combustion air fan, induced draft fan, combustion grate bar failure) is determined to be a malfunction; **[Reference: COMAR 26.11.08.08A(3), 40 CFR §60.58b(a)(1)(i) and (1)(iii)]**

   b. The start-up period commences when the facility begins the continuous burning of municipal solid waste and does not include any warm-up period when the facility is combusting a fossil fuel or any other auxiliary fuel, and no municipal waste is being combusted; **[Reference: COMAR 26.11.08.08A(3) and 40 CFR §60.58b(a)(1)(i)]**

   c. To allow for waste to be emptied from the throat of the feeding chute, the shutdown period shall begin 30 minutes after the chute to the loading hopper of the combustion train is closed. **[Reference: COMAR 26.11.02.02H]**

**B. <u>Incinerator Operator Training</u>**

1. **COMAR 26.11.08.09B,** <u>Certification Requirement</u>. “A person may not operate or allow an incinerator to be operated unless the owner certifies to the Department on a form approved by the Department that the incinerator operator:

   a. Has completed an initial training course approved by the Department which meets the requirements of COMAR 26.11.08.09D;

   b. Annually, after initial certification, completes a review course approved by the Department; and

   c. Is present at all times whenever the incinerator is in operation.”

2. **COMAR 26.11.08.09D(1),** <u>Training Course for Operators of Municipal Waste Combustors, Sewage Sludge Incinerators, and Hazardous</u>

| Table IV – 1 | |
|---|---|
| | Waste Incinerators. "For any incinerator operator who operates a municipal waste combustor (MWC), the training course shall address the following subjects in detail:<br><br>a. Overall operation, maintenance, and performance of the facility;<br><br>b. Start-up and shut-down of the facility;<br><br>c. Applicable federal, State, and local environmental regulations, and sanctions for violations;<br><br>d. Policies and procedures for proper and safe plant operation;<br><br>e. Maintaining records of facility operations;<br><br>f. Actions to correct upsets or emergencies;<br><br>g. Control room operations;<br><br>h. Ash handling and disposal;<br><br>i. Combustion theory;<br><br>j. Air pollution control technology;<br><br>k. Continuous emission monitors and their calibration, and quality assurance requirements."<br><br>3. **COMAR 26.11.08.09D(2),** Training Course for Operators of Municipal Waste Combustors, Sewage Sludge Incinerators, and Hazardous Waste Incinerators. "For the operator of any municipal waste combustor (MWC), completing a training course means:<br><br>a. Completing an initial training course approved by the Department of at least 5 days (40 hours) duration; and<br><br>b. Passing a written test approved by the Department."<br><br>4. **COMAR 26.11.08.09D(4),** Training Course for Operators of Municipal Waste Combustors, Sewage Sludge Incinerators, and Hazardous Waste Incinerators. "The certified operator shall, after initial training, complete and pass an annual review course approved by the Department of at least 1 day (8 hours) duration." |

**Table IV – 1**

5. **COMAR 26.11.08.09H,** Operations and Maintenance Manual.

   a. "The owner or operator of a large MWC shall develop and maintain on-site, an operations and maintenance manual that contains, at a minimum, all of the course content requirements in COMAR 26.11.08.09D(1) and in 40 CFR §60.54b(e)."

   b. "The operations and maintenance manual shall be updated annually."

**C. <u>PSD Approval 83-01 (Feb. 21, 1986)</u>**

1. The Permittee shall not exceed the facility-wide emissions limitations specified below:

   $SO_2$: 375 lbs./hr. and 1,478 tons/year
   CO: 121 lbs./hr. and 477 tons/year
   NOx: 298 lbs./hr. and 1,176 tons/year
   Fluorides: 12 lbs./hr. and 47 tons/year
   **[Reference: PSD Approval 83-01, Part I, Condition (1)]**

2. Compliance with the facility wide lb/hr PSD emission limit shall be determined as follows:

   a. $SO_2$, CO and NOx: 8-hour block average. A valid facility eight-hour block average is based on a minimum of 6 hours of total facility hourly data.

   b. Fluorides: the average of three test runs using EPA Reference Method 13B, 26A, or equivalent

   c. All emissions associated with startup, shutdown, and malfunction episodes are included in the pounds per hour standard. **[Reference: COMAR 26.11.02.02H]**

   *<u>Note</u>: AFSF factors are derived from stack tests or an alternative methodology approved by the Department.*

3. The tons per year PSD emission limits are a 12-month composite (rolling monthly) and includes all emissions associated with startup, shutdown, and malfunction episodes. **[Reference: COMAR 26.11.02.02H]**

| Table IV – 1 | |
|---|---|
| | 4. The Permittee shall develop and submit to the Department for approval procedures to ensure that only acceptable wastes as defined in Appendix A of the PSD application are incinerated. **[Reference: PSD Approval 83-01 Part I, Condition (4)]**<br><br>5. The start-up fuel for the incinerator shall be natural gas. The incinerator shall not exceed a fuel consumption rate of $2.7 \times 10^7$ ft.$^3$ of natural gas in any one (1)-year period. **[Reference: PSD Approval 83-01 Part I, Condition (5)]**<br><br>**D. <u>NSINA Approval No. 83-01 (Feb. 21, 1986)</u>**<br><br>Each furnace shall be equipped with electrostatic precipitators that shall be operated such that the particulate grain loading at the outlet ends of the ESP complies with the 0.017 gr/dscf particulate matter emission standard for large MWCs. **[Reference: NSINA Approval 83-01 Condition (3)]**<br><br>*<u>Note:</u> The electrostatic precipitator (ESP) has been removed. Ongoing compliance shall be demonstrated with a pulse jet fabric filter (FF).*<br><br>*<u>Note:</u> Compliance with the existing Large MWC particulate emission limit of 25 mg/dscm (0.01093 gr/dscf) and testing, recordkeeping and monitoring requirements under COMAR 26.11.08.08A(2) assures compliance with the NSINA limit.*<br><br>**E. <u>Visible Emissions</u>**<br><br>No emissions, other than water in an uncombined form, visible to human observers. The no visible emission requirement does not apply to emissions during start-up, or adjustments, or occasional cleaning of control equipment, if: (1) the visible emissions are not greater than 40 percent opacity; and (2) the visible emissions do not occur for more than 6 consecutive minutes in any 60-minute period. **[Reference: COMAR 26.11.08.04B&C]** |
| **1.2** | **<u>Testing Requirements</u>:**<br><br>**A. <u>Existing Large MWC Emission Limits</u>**<br><br>The Permittee shall comply with the testing requirements for the emissions and operational parameters in accordance with the test |

| Table IV – 1 | |
|---|---|
| | methods and specified frequencies referenced in Table IV-1A for existing large MWCs no less than 9 months and no more than 15 months following the previous test. **[Reference: COMAR 26.11.08.08A(2)]**<br><br>**B. Incinerator Operator Training**<br><br>No emissions testing requirements under this paragraph.<br><br>**C. PSD Approval 83-01**<br><br>The Permittee shall conduct annual testing for fluorides no less than 9 months and no more than 15 months following the previous test using EPA Reference Method 13B or 26A or equivalent approved by the Department. Testing may be combined with the existing large MWC annual HCl testing. **[Reference COMAR 26.11.03.06C(3)]**<br><br>**D. NSINA Approval 83-01**<br><br>The Permittee shall perform annual testing for particulate emissions in accordance with the standards for existing large MWCs as provided in COMAR 26.11.08.08A(2). **[Reference: COMAR 26.11.03.06C(3)]**<br><br>*Note: The NSINA particulate emissions standard is subsumed by the particulate emissions standard of COMAR 26.11.08.08A(2).*<br><br>**E. Visible Emissions**<br><br>See Monitoring Requirements |
| **1.3** | **Monitoring Requirements:**<br><br>**A. Existing Large MWC Emission Limits**<br><br>1. The Permittee shall:<br><br>a. Install, calibrate, operate and maintain continuous emission monitors for carbon monoxide, oxygen, opacity, oxides of nitrogen, and sulfur dioxide;<br><br>b. Locate monitors downstream of the final air pollution control device to measure concentrations of oxygen, oxides of nitrogen, sulfur dioxide, and opacity of the exhaust gases; and |

| Table IV – 1 | |
|---|---|
| | c. Install, operate, and maintain at a minimum, one temperature monitor to measure the temperature of the flue gas as it enters the particulate matter control device. **[Reference: COMAR 26.11.01.11B(3) and COMAR 26.11.08.08B(1)]**<br><br>2. If the percent removal option is to be used to show compliance with regulation COMAR 26.11.08.08B (1)(b), sulfur dioxide and oxygen monitors shall also be located upstream of the pollution control device. Monitors shall be located at the combustor outlet exit to measure concentrations of carbon monoxide. **[Reference: COMAR 26.11.08.08B(2)]**<br><br>*Note: $SO_2$ and $O_2$ are measured upstream of the air pollution control device to calculate % removal and CO is measured downstream of air pollution control devices as approved per COMAR 26.11.08.08(B)(4)*<br><br>3. The monitors required by COMAR 26.11.08.08B(1)(a) and (b) of this regulation shall meet the installation, certification, reporting, record-keeping, and other requirements of COMAR 26.11.01.10, performance specifications in 40 CFR Part 60, Appendix B, the quality assurance procedures in 40 CFR Part 60, Appendix F, specifications in 40 CFR Sec. 60.58b, and COMAR 26.11.31. **[Reference: COMAR 26.11.08.08B(3)]**<br><br>4. A person shall apply for and receive written approval from the Department before installing any of the monitors required in this chapter. **[Reference: COMAR 26.11.08.08(B)(4)]**<br><br>5. During the performance tests for dioxins/furans and mercury, as applicable, the owner or operator shall estimate an average carbon mass feed rate based on carbon injection system operating parameters such as the screw feeder speed, hopper volume, hopper refill frequency, or other parameters appropriate to the feed system being employed. **[Reference: 40 CFR § 60.58b(m)(1)]**<br><br>6. An average carbon mass feed rate in kilograms per hour or pounds per hour shall be estimated during the initial performance tests for mercury emissions and each subsequent performance test for mercury emissions. **[Reference: 40 CFR §60.58b(m)(1)(i)]**<br><br>7. An average carbon mass feed rate in kilograms per hour or pounds per hour shall be estimated during the initial performance tests for |

**Table IV – 1**

dioxin/furan emissions and each subsequent performance test for dioxin/furan emissions. If a subsequent dioxin/furan performance test is being performed on only one affected facility at the MWC plant, the owner or operator may elect to apply the same estimated average carbon feed rate from the tested facility for all the similarly designed and operated facilities at the MWC plant. **[Reference: 40 CFR § 60.58b(m)(1)(ii)]**

8. During operation of the affected facility, the carbon injection system operating parameter(s) that are the primary indicator(s) of the carbon mass feed rate shall be averaged over a block 8-hour period and the 8-hour block average must exceed or equal the level(s) documented during the performance tests specified under 40 CFR 60.58b(m)(1)(i)&(ii) except as specified in §§(m)(2)(i) and §§(m)(2)(ii). **[Reference: 40 CFR §60.58b(m)(2)]**

9. During the annual dioxin/furan or mercury performance test and the 2 weeks preceding the annual performance test, no limit is applicable for the average mass carbon feed rate if the provisions of §§(m)(2)(ii) are met. **[Reference: 40 CFR 60.58b(m)(2)(i)]**

10. The limit for average mass carbon feed rate may be waived in accordance with permission granted by the Administer for the purpose of evaluating system performance, testing new technology or control technology, diagnostic testing or related activities. **[Reference: 40 CFR § 60.58b(m)(2)(ii)]**

**B. <u>Incinerator Operator Training</u>**

See Record Keeping and Reporting requirements.

**C. <u>PSD Approval 83-01</u>**

1. The Permittee shall monitor natural gas fuel usage to ensure compliance with the PSD limitation. Total facility fuel usage shall be calculated on a 12 month rolling average basis. [**Reference:** COMAR 26.11.03.06C(3)].

2. The Permittee shall continuously monitor pollutants and other parameters necessary to calculate the pounds per hour PSD limits. The methodology for calculating the lbs/hr emissions shall be as follows:

| Table IV – 1 | |
|---|---|
| | Average lbs/hour = (ppm)*(AFSF factor (DSCFH/Klbs))*(actual steam flow (Klbs/hr))*(Conversion Factor), where:<br><br>• ppm = CEM hourly average ppmdv for CO, NOx, and $SO_2$<br>• Stack test air flow to steam flow factor (AFSF) = Dry standard cubic foot per hour air flow per thousand lbs steam (DSCFH/Klb)<br>• Actual steam flow (Klbs/hour) = steam flow in thousand pounds per hour<br>• Conversion Factor = 1.66E-07 for SO2, 1.194E-07 for NOx, and 7.27E-08 for CO from 40 CFR Part 60 Appendix B Method 19 procedures for converting ppm to lbs/dscf. **[Authority: COMAR 26.11.03.06C(3)]**<br><br>*Note: The AFSF factors are updated during annual stack testing or an alternative methodology approved by the Department.*<br><br>**D. NSINA Approval 83-01**<br><br>See Monitoring Requirements for Existing Large MWC Emission Limits.<br><br>*Note: The NSINA particulate emissions standard is subsumed by the particulate emissions standard of COMAR 26.11.08.08A(2).*<br><br>**E. Visible Emissions**<br><br>Periodic monitoring shall be done using EPA Reference Method 9 observations on a monthly basis. Observation shall be conducted over a 15-minute period. **[Reference: COMAR 26.11.03.06C(3)]** |
| **1.4** | **Record Keeping Requirements:**<br><br>**A. Existing Large MWC Emission Limits**<br><br>1. The Permittee shall maintain records in accordance with 40 CFR § 60.59(b) of Subpart Eb, as applicable, except for the siting requirements under §§ 60.59b(a), (b)(5), and (d)(11) of 40 CFR 60 Subpart Eb. **[Reference: COMAR 26.11.08.08C(1)]**<br><br>2. Continuous emissions monitoring data reduction and data availability shall be in accordance with COMAR 26.11.01.10. If there is any inconsistency between COMAR 26.11.01.10 and 40 CFR Part 60, the |

**Table IV – 1**

requirements of 40 CFR Part 60 govern. **[Reference: COMAR 26.11.08.08C(2)]**

3. The Permittee shall estimate the total carbon usage of the plant for each calendar quarter by two independent methods as stated in conditions 4 and 5 below. **[Reference: 40 CFR §60.58b(m)(3)]**

4. The Permittee shall estimate total carbon usage at the plant by maintaining records for of the weight of carbon delivered to the plant on a quarterly basis. **[Reference: 40 CFR §60.58b(m)(3)(i)]**

5. The Permittee shall estimate the average carbon mass feed rate for each hour of operation for each affected facility based on the carbon feed system parameters specified during performance testing. The Permittee shall sum the results for all affected facilities at the plant for the total number of hours of operation during the calendar quarter. **[Reference: 40 CFR §60.58b(m)(3)(ii)]**

6. The Permittee shall retain records of quarterly carbon usage using the methods described above for a period of 5 years and make that data available to the Department upon request. **[Reference: COMAR 26.11.03.06C]**

**B. <u>Incinerator Operator Training</u>**

The Permittee shall maintain a copy of a certificate issued by the Department to each incinerator operator who has satisfactorily completed an approved incinerator training course and has passed the exit examination. **[Reference: COMAR 26.11.08.09 and COMAR 26.11.03.06C(3)]**

**C. <u>PSD Approval 83-01</u>**

1. The Permittee shall retain records of all emissions data and operating parameters and fuel use, as required by the terms of PSD Approval 83-01 for a period of five (5) years. **[Reference: PSD Approval 83-01 Part II Condition (5) and COMAR 26.11.03.06C]**

2. The Permittee shall maintain records of the calculated pounds per hour and the tons per years for a period of 5 years. **[Reference: COMAR 26.11.03.06C]**

| Table IV – 1 | |
|---|---|
| | 3. The Permittee shall maintain a record of the results of the annual stack test for fluorides for a period of 5 years. **[Reference: COMAR 26.11.03.06C]**<br><br>**D. NSINA Approval 83-01**<br><br>See Record Keeping Requirements for Existing Large MWC Emission Limits.<br><br>*Note: The NSINA particulate emissions standard is subsumed by the particulate emissions standard of COMAR 26.11.08.08A(2).*<br><br>**E. Visible Emission Limit**<br><br>The Permittee shall maintain records of all Method 9 observation taken to demonstrate compliance with COMAR 26.11.08.04, on-site for a period of at least five (5) years. **[Reference: COMAR 26.11.03.06]** |
| **1.5** | **Reporting Requirements:**<br><br>**A. Existing Large MWC Emission Limits**<br><br>1. The Permittee shall submit a quarterly CEM/COM and parameter monitoring data excess emission report to the Department not later than 30-days following each calendar quarter. At a minimum, the report shall include:<br><br>a. A listing of the time period, magnitude, and cause of all emissions that exceeded the applicable emission or parameter monitoring standard for the respective emission/parameter averaging time,<br><br>b. A listing of all excluded data and the reason for excluding the data,<br><br>c. A listing of all the 1-hour average emission concentrations, 1-hour percent reduction data, as applicable, and 1-hour parameter monitoring data for any day that there was either an exceedance of an emission or parameter standard or for any day that the Permittee excluded data. The listing is only required for the respective pollutant or parameter that there was an exceedance for or Permittee excluded data, |

| Table IV – 1 | |
|---|---|
| | d. A listing of time periods (including invalid hourly averages or invalid 6 minute averages for COMs) and cause of all CEM/COM and parameter monitor downtimes,<br><br>e. A listing of installation (MWC units) downtime,<br><br>f. Daily calibration activities when results exceeded the daily calibration drift limits and the results of all audits performed during the quarter, and<br><br>g. A summary of the quarterly totals of excess emissions, installation downtimes, and monitor downtimes. **[Reference COMAR 26.11.01.10D(2), COMAR 26.11.01.11E(2), and COMAR 26.11.03.06C]**<br><br>2. A person who owns an existing MWC subject to this regulation shall submit to the Department semi-annual reports that includes the information specified in §§60.59b(g)(1) through (g)(5) of Subpart Eb, as applicable, by August 1st and February 1st for the respective reporting periods. **[Reference: 40 CFR § 60.59b(g)]**<br><br>3. A person who owns an existing MWC subject to this regulation shall submit to the Department semi-annual reports that includes the information specified in §§(h)(1) through §§(h)(5) , as applicable, for any recorded pollutant or parameter that does not comply with the pollutant or parameter limit specified under this subpart by August 1st and February 1st for the respective reporting periods. **[Reference: 40 CFR §60.59b(h)]**<br><br>**B. <u>Incinerator Operator Training</u>**<br><br>Record and Notification. Within 10 days after training is complete, the person who conducts an approved incinerator operator training course shall:<br><br>a. Notify the Department in writing, of the names, employee identification numbers, and employer of those incinerator operators who have successfully completed the training course; and<br><br>b. Provide a certificate to each incinerator operator who has satisfactorily completed the training course and has passed the |

**Table IV – 1**

required examination [**Reference:** COMAR 26.11.08.09G(1) & (2)].

**C. PSD Approval 83-01**

1. The Permittee shall submit the results of annual fluoride tests along with the other annual emission test results that satisfy COMAR 26.11.08.08C(1). **[Reference: COMAR 26.11.03.06C]**

2. The Permittee shall submit a quarterly excess emission report to the Department not later than 30-days following each calendar quarter. At a minimum, the report shall include:

   a. A listing of the time period, magnitude, and cause of all emissions that exceeded the applicable emission standard for the respective emission averaging time along with causes and corrective actions, and

   b. A listing of all of the 12-month rolling emissions for $SO_2$, CO, NOx for the quarter. **[Reference: COMAR 26.11.03.06C]**

3. If, for any reason, the Permittee does not comply or will not be able to comply with the emission limitations or other conditions specified in this Approval, the Permittee shall provide the Department with the following information as soon as possible, but no later than five (5) days after such conditions become known to the Company [**Reference:** PSD Approval 83-01 Part II, Condition (6)]**:**

   a. Description of non-compliance;

   b. Cause of non-compliance;

   c. Anticipated time the non-compliance is expected to continue or, if corrected, the actual duration of non-compliance;

   d. Steps taken to minimize or eliminate non-compliance; and

   e. Steps taken to prevent recurrence of the non-compliance.

4. Submittal of this report does not constitute a waiver of the emission limitations or other conditions of this Approval nor does it in anyway restrict the Department's Reference to enforce the conditions. Note:

| Table IV – 1 | |
|---|---|
| | This report applies to noncompliance with PSD Approval 83-01 emission limits and other PSD conditions only.<br><br>5. In the event of any change in control of ownership, the Permittee shall notify the succeeding owner of the existence of this Approval by letter and send a copy of that letter to the Department. **[Reference: PSD Approval 83-01 Part II-Condition (9)]**<br><br>**D. NSINA Approval 83-01**<br><br>See Reporting Requirements for Existing Large MWC Emission Limits.<br><br>*Note: The NSINA particulate emissions standard is subsumed by the particulate emissions standard of COMAR 26.11.08.08A(2).*<br><br>**E. Visible Emission Limit**<br><br>The Permittee shall report deviations in accordance with Section III, Plant Wide Conditions, Item 4 Report of Excess Emissions and Deviations. |

**A Permit Shield shall cover the applicable requirements identified for the emission units listed in the table above. Permit shields are granted on an emission unit by emission unit basis.**

**Table IV-1A**

**Emission Standards, Performance and Compliance Testing Requirements for Emissions Units 1 thru 3 [Reference: COMAR 26.11.08.08A(2)]**

| *Pollutant/ Parameter* | *Emission Standard for a Large MWC*<br>* adjusted to 7 percent oxygen on dry basis. | *Performance and Compliance Test Requirements* |
|---|---|---|
| Opacity | 10 percent opacity with Continuous Opacity Monitoring System (COMS) based on six-minute block averages. | EPA Reference Method 9 and COMS. Applicable test procedures and methods as specified in 40 CFR §60.58b(c); and quality assurance requirements as specified in COMAR 26.11.31. |

**Table IV-1A**

**Emission Standards, Performance and Compliance Testing Requirements for Emissions Units 1 thru 3 [Reference: COMAR 26.11.08.08A(2)]**

| *Pollutant/ Parameter* | *Emission Standard for a Large MWC*<br>* adjusted to 7 percent oxygen on dry basis. | *Performance and Compliance Test Requirements* |
|---|---|---|
| Particulate Matter | 25 mg/dscm* (0.01093 gr/dscf)* | EPA Reference Method 5. Annual test, methods and procedures as specified in 40 CFR §60.58b(c) |
| $SO_2$ (Sulfur Dioxide) | 29 ppmv* - 24 hr. geometric mean or 75 percent reduction, whichever is less restrictive | CEMS. Applicable test procedures and methods as specified in 40 CFR §60.58b(e). |
| NOx (Oxides of Nitrogen) | 205 ppmv* - 24 hr. arithmetic for Mass burn waterwall MWC. | CEMS. Applicable test procedures and methods as provided in 40 CFR §60.58b(h). |
| Carbon Monoxide | 100 ppmv* - 4 hr. block avg. | CEMS. Methods and procedures as specified in 40 CFR §60.58b(b) and 40 CFR §60.58b(i). |
| HCl (Hydrogen Chloride) | 29 ppmv* or at least 95 percent removal efficiency whichever is less restrictive. | EPA Reference Method 26 or 26A. Annual test except as provided in 40 CFR §60.58b(f). Applicable test procedures and methods as provided in 40 CFR §60.58b(f). |
| Dioxins /Furans | 35 ng/dscm* (total mass) for ESP based control device | EPA Reference Method 23. Annual test except as provided in 40 CFR §60.58b(g) (5) (iii) and 40 CFR §60.38b (b). Applicable test procedures and methods as specified in 40 CFR §60.58b(g). |
| Cd (Cadmium) | 35 µg/dscm* | EPA Reference Method 29. Annual test except as provided in 40 CFR §60.58b(d). Applicable test procedures and methods as specified in 40 CFR 60.58b(d). |
| Pb (Lead) | 400 µg/dscm* | EPA Reference Method 29. Annual test except as provided in 40 CFR §60.58b(d). |

**Table IV-1A**

**Emission Standards, Performance and Compliance Testing Requirements for Emissions Units 1 thru 3 [Reference: COMAR 26.11.08.08A(2)]**

| *Pollutant/ Parameter* | *Emission Standard for a Large MWC*<br>* adjusted to 7 percent oxygen on dry basis. | *Performance and Compliance Test Requirements* |
|---|---|---|
| | | Applicable test procedures and methods as specified in 40 CFR §60.58b(d). |
| Hg (Mercury) | 50 µg/dscm*<br>or 85% reduction by weight applies if less restrictive than the above. | EPA Reference Method 29. Annual test except as provided in 40 CFR §60.58b(d) and (m). Applicable test procedures and methods as specified in 40 CFR §60.58b(d). |
| Load | Not to exceed 110 percent of maximum load during most recent dioxin/furan performance test during which compliance with the dioxin/furan emission limit is achieved. | Continuous monitoring – 4 hr. block arithmetic average steam load. Applicable test procedures and methods as provided in 40 CFR §60.58b(i)(6) and (8). |
| Temperature | The maximum particulate matter control device inlet temperature must not exceed by more than 17 degrees Celsius the temperature during the most recent dioxin/furan test demonstrating compliance. | Continuous monitoring. The temperature shall be calculated in 4-hr. block arithmetic averages. Applicable test procedures and methods satisfying the requirements of 40 CFR §60.58b(i) (7) and (9) and exemptions in 40 CFR §60.53b(c). |
| Fugitive Ash Emissions | Visible emissions less than 5 percent of the observation period during ash transfer. | EPA Reference Method 9 observations as specified in 40 CFR §60.58b(k). Annual test. The emission limit excludes visible emissions discharged inside buildings or enclosures of ash conveying systems or during maintenance and repair of ash conveying systems as specified in 40 CFR §60.55b. |

*Corrected to 7 percent oxygen on dry basis. If a $CO_2$ monitor is selected as the diluent monitor, it must meet the requirements of 40 CFR §60.58b(b)(6)

## SECTION V INSIGNIFICANT ACTIVITIES

This section provides a list of insignificant emissions units that were reported in the Title V permit application. The applicable Clean Air Act requirements, if any, are listed below the insignificant activity.

(1) No. 1 Stationary internal combustion engines with an output less than 500 brake horsepower (373 kilowatts) and which are not used to generate electricity for sale or for peak or load shaving;

The generator is subject to the following requirements:

(A) COMAR 26.11.09.05E(2), Emissions During Idle Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.

(B) COMAR 26.11.09.05E(3), Emissions During Operating Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.

(C) Exceptions:

(i) COMAR 26.11.09.05E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system.

(ii) COMAR 26.11.09.05E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:

(a) Engines that are idled continuously when not in service: 30 minutes
(b) all other engines: 15 minutes.

(iii) COMAR 26.11.09.05E(2) & (3) do not apply while maintenance, repair or testing is being performed by qualified mechanics.

(D) COMAR 26.11.36.03A(1), which establishes that the Permittee may not operate an emergency generator except for emergencies, testing and maintenance purposes.

(E) COMAR 26.11.36.03A(5), which establishes that the Permittee may not operate an emergency generator for testing and engine maintenance purposes between 12:01 a.m. and 2:00 p.m. on any day on which the Department forecasts that the air quality will be a code orange, code red, or code purple unless the engine fails a test and engine maintenance and a re-test are necessary.

(2) ✓ Space heaters utilizing direct heat transfer and used solely for comfort heat;

(3) No. >1 Unheated VOC dispensing containers or unheated VOC rinsing containers of 60 gallons (227 liters) capacity or less;

The Various VOC containers are subject to COMAR 26.11.19.09D, which requires that the Permittee control emissions of volatile organic compounds (VOC) from cold degreasing operations by meeting the following requirements:

(a) COMAR 26.11.19.09D(2)(b), which establishes that the Permittee shall not use any VOC degreasing material that exceeds a vapor pressure of 1 mm Hg at 20 ° C;

(b) COMAR 26.11.19.09D(3)(a—d), which requires that the Permittee implement good operating practices designed to minimize spills and evaporation of VOC degreasing material. These practices, which shall be established in writing and displayed such that they are clearly visible to operators, shall include covers (including water covers), lids, or other methods of minimizing evaporative losses, and reducing the time and frequency during which parts are cleaned;

(c) COMAR 26.11.19.09D(4), which prohibits the use of any halogenated VOC for cold degreasing.

The Permittee shall maintain on site for at least five (5) years, and shall make available to the Department upon request, the following records of operating data:

(a) Monthly records of the total VOC degreasing materials used; and

(b) Written descriptions of good operating practices designed to minimize spills and evaporation of VOC degreasing materials.

(4) ✓ Equipment for drilling, carving, cutting, routing, turning, sawing, planing, spindle sanding, or disc sanding of wood or wood products;

(5) Containers, reservoirs, or tanks used exclusively for:

(a) ✓ Storage of butane, propane, or liquefied petroleum, or natural gas;

(b) No. >1 Storage of lubricating oils;

(c) No. 4 Unheated storage of VOC with an initial boiling point of 300 °F (149 °C) or greater;

(d) No. 2 Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel;

(e) No. >1 The storage of VOC normally used as solvents, diluents, thinners, inks, colorants, paints, lacquers, enamels, varnishes, liquid resins, or other surface coatings and having individual capacities of 2,000 gallons (7.6 cubic meters) or less;

(6) ✓ First aid and emergency medical care provided at the facility, including related activities such as sterilization and medicine preparation used in support of a manufacturing or production process;

(7) ✓ Comfort air conditioning subject to requirements of Title VI of the Clean Air Act;

(8) ✓ Natural draft hoods or natural draft ventilators that exhaust air pollutants into the ambient air from manufacturing/industrial or commercial processes;

(9) ✓ Laboratory fume hoods and vents;

(10) any other emissions unit, not listed in this section, with a potential to emit less than the "de minimus" levels listed in COMAR 26.11.02.10X (list and describe units):

No. 4 Storage Silos for lime and activated carbon used as reagents in air pollution control devices

No. 3 Wet scrubbers used for ventilation of ash handling area, ash loadout area, and ash trommel area.

## SECTION VI STATE-ONLY ENFORCEABLE CONDITIONS

The Permittee is subject to the following State-only enforceable requirements:

1. Applicable Regulations:

   (A) COMAR 26.11.06.08 and 26.11.06.09, which generally prohibit the discharge of emissions beyond the property line in such a manner that a nuisance or air pollution is created.

   (B) COMAR 26.11.15.05, which requires that the Permittee implement "Best Available Control Technology for Toxics" (T – BACT) to control emissions of toxic air pollutants.

   (C) COMAR 26.11.15.06, which prohibits the discharge of toxic air pollutants to the extent that such emissions will unreasonably endanger human health

2. Monitoring Requirements:

   A. The Permittee shall monitor the material in its waste stream in accordance with Department approved procedures to comply with the following waste restrictions:

      i. Municipal Solid Waste may include certain `solid waste generated from industrial, institutional, and commercial facilities such as trimmings, off-specification products, and similar materials. Hazardous wastes, and infectious medical wastes must be excluded.

      ii. Infectious waste may not be stored, burned, or disposed of at this facility; and

      iii. Off-spec and outdated pharmaceuticals may be burned at the facility provided that the burning does not cause a violation of any standard or operating requirement.

3. NOx Requirements for Large Municipal Waste Combustors (Effective: 12/6/18)

   A. COMAR 26.11.08.10A, which requires owners and operators of a Large MWC to minimize NOx emissions by operating and optimizing the use of all installed pollution control technology and combustion controls consistent with the technological limitations, manufacturers'

specifications, good engineering and maintenance practices, and good air pollution control practices for minimizing emissions (as defined in 40 CFR §60.11(d)) for such equipment and the unit at all times the unit is in operation, including periods of startup and shutdown.

B. COMAR 26.11.08.10B, as of May 1, 2019, the owner or operator of a Large MWC shall meet the following applicable NOx emission rates, except for periods of startup and shutdown:

| Affected Sources | $NO_x$ 24-hour block average emission rate |
|---|---|
| Montgomery County Resource Recovery Facility | 140 ppmv |
| Wheelabrator Baltimore Inc. | 150 ppmv |

C. COMAR 26.11.08.10C, as of May 1, 2020, the owner or operator of a Large MWC shall meet the requirements of §B of this regulation and the following applicable NOx emission rates, except for periods of startup and shutdown:

| Affected Sources | $NO_x$ 30-day rolling average emission rate |
|---|---|
| Montgomery County Resource Recovery Facility | 105 ppmv |
| Wheelabrator Baltimore Inc. | 145 ppmv |

D. COMAR 26.11.08.10D(2), as of May 1, 2019, a facility-wide NOx emission limit of 252 lbs./hr. timed average mass loading over a 24-hour period shall apply during periods of startup and shutdown for Wheelabrator Baltimore Inc.

E. COMAR 26.11.08.10E, Additional NOx Emission Control Requirements.

i. Not later than January 1, 2020, the owner or operator of Wheelabrator Baltimore Inc. shall submit a feasibility analysis for additional control of NOx emissions from the Wheelabrator Baltimore Inc. facility to the Department. This analysis shall be prepared by an independent third party and include the following:

a. A written narrative and schematics detailing existing facility operations, boiler design, NOx control technologies, and relevant emission performance;

b. A written narrative and schematics detailing various state-of-the-art NOx control technologies for achieving additional NOx emission reductions from existing MWCs, including technologies capable of achieving NOx emission levels comparable to those for a new source in consideration of the overall facility design at Wheelabrator Baltimore Inc.;
c. An analysis of whether each state-of-the-art control technology identified under §E(1)(b) of this regulation could technically be implemented at the Wheelabrator Baltimore Inc. facility;
d. Capital and operating costs, NOx emission benefits, and air quality impacts resulting from installation of each state-of-the-art control technology as identified under §E(1)(b) of this regulation; and
e. An estimated timeline for installation of each state-of-the-art control technology as identified under §E(1)(b) of this regulation which shall include design time, construction, operational testing, and start up.

ii. Upon written request, Wheelabrator Baltimore Inc. shall submit any other information that the Department determines is necessary to evaluate the feasibility analysis.

iii. Not later than January 1, 2020, based upon the results of the feasibility analysis as required under §E(1) of this regulation, the owner or operator of Wheelabrator Baltimore Inc. shall propose and submit a NOx 24-hour block average emission rate, NOx 30-day rolling average emission rate, and NOx mass loading emission limitation for periods of startup, shutdown and malfunction.

F. COMAR 26.11.08.10F, requires that the owner or operator of a Large MWC continuously monitor NOx emissions with a continuous emission monitoring system in accordance with COMAR 26.11.01.11.

G. COMAR 26.11.08.10G, not later than 45 days after the effective date of this regulation, the owner or operator of a Large MWC shall submit a plan to the Department and EPA for approval that demonstrates how the Large MWC will operate installed pollution control technology and combustion controls to meet the requirements of COMAR 26.11.08.10A. The plan shall summarize the data that will be collected to demonstrate compliance with COMAR 26.11.08.10A. The plan shall cover all modes of operation, including but not limited to normal operations, startup, and shutdown.

*Note: The Permittee submitted the plan for approval required by Condition G on January 22, 2019.*

H. COMAR 26.11.08.10H, beginning July 1, 2019, the owner or operator of a Large MWC shall submit a quarterly report to the Department containing:

i. Data, information, and calculations which demonstrate compliance with the NOx 24-hour block average emission rate as required in §B of this regulation;

ii. Data, information, and calculations, including NOx continuous emission monitoring data and stack flow data, which demonstrate compliance with the startup and shutdown mass NOx emission limits as required in §D of this regulation;

iii. Flagging of periods of startup and shutdown and exceedances of emission rates;

iv. NOx continuous emission monitoring data and total urea flow rate to the boiler averaged over a 1-hour period, in a Microsoft Excel format; and

v. Documented actions taken during periods of startup and shutdown in signed, contemporaneous operating logs.

I. COMAR 26.11.08.10I, beginning July 1, 2020, the quarterly report to be submitted pursuant to COMAR 26.11.08.10H of this regulation shall also include data, information, and calculations which demonstrate compliance with the NOx 30-day rolling average emission rate as required in COMAR 26.11.08.10C of this regulation.

J. COMAR 26.11.08.10J, no less than 2 weeks advance notice and the opportunity to observe activities shall be provided to the Department prior to any optimization procedure, including installation or operation of $NO_x$ emission control technology, for the express purpose of complying with the requirements of COMAR 26.11.08.10E(1).

K. COMAR 26.11.08.10K, which requires compliance with the $NO_x$ emission standards in COMAR 26.11.08.10B, C, and D shall be demonstrated with a continuous emission monitoring system.

L. COMAR 26.11.08.10M, Compliance with the $NO_x$ Mass Loading Emission Limitation for the Wheelabrator Baltimore Inc.

i. Compliance with the $NO_x$ mass loading emission limitation for periods of startup and shutdown in COMAR 26.11.08.10D(2) shall be demonstrated by calculating the 24-hour average of all hourly average $NO_x$ emission concentrations from continuous emission monitoring systems.

ii. The calculations in COMAR 26.11.08.10M(1) shall utilize the applicable Prevention of Significant Deterioration calculation methodology, for all the hours during the 3-hour startup or shutdown period and the remaining 21 hours of the 24-hour period.

M. Per a mutual agreement between the Permittee and the City of Baltimore, this source is subject to the following State-only enforceable air pollution control requirements:

i. The Permittee shall not exceed the facility-wide emissions limitations specified below:

(a) Nitrogen Oxides (NOx) – 105 parts per million dry volume (ppmdv) at 7 percent oxygen on dry basis over a 30-day rolling average.

(b) Sulfur Dioxide (SO2) – 18 ppmdv at 7 percent oxygen on dry basis over a 24-hour block geometric mean.

(c) Dioxins and Furans – 2 nanograms TEQDF-WHO98* per dry standard cubic meter at 7 percent oxygen on dry basis.

(d) Dioxins and Furans –15 nanograms per dry standard cubic meter (ng/dscm) at 7 percent oxygen on dry basis.

(e) Mercury – 15 micrograms per dry standard cubic meter (µg/dscm) at 7 percent oxygen on dry basis.

(f) Cadmium – 25 µg/dscm at 7 percent oxygen on dry basis.

(g) Lead – 250 µg/dscm at 7 percent oxygen on dry basis.

ii. The Permittee shall comply with the emissions limitations above on and after December 31, 2023 unless this date is extended by the City because of an uncontrollable circumstance. The Department shall be notified no later than 30 days after this date is extended by the City.

iii. Compliance with the SO2 and NOx emissions limitations above shall be determined by continuous emission monitors (CEMS) already installed and operated in accordance with the requirements of the Title V Part 70 Federal Permit to Operate. Compliance with the emission limitations for Dioxins and Furans, Mercury, Cadmium and Lead in above shall be determined in accordance with the applicable sampling and analytical methods in the Title V Part 70 Federal Permit to Operate.

# Part 70 Operating Permit Renewal Application

## Wheelabrator Baltimore L.P.
## Permit No. 24-510-01886

*Prepared for:*

**Wheelabrator Baltimore L.P.**
1801 Annapolis Rd., Baltimore, MD 21230

*Prepared by*

**TRC Environmental Corporation**
21 Griffin Road North, Windsor, CT 06095
Telephone 860-298-9692 | Facsimile 860-298-6399

TRC Project No. 556744

October 2023

October 16, 2023

Ms. Suna Yi Sariscak
Manager Air Quality Permits Program
Air and Radiation Management Administration
Maryland Department of the Environment
1800 Washington Boulevard, Suite 715
Baltimore, MD 21230-1720

Re: Part 70 Operating Permit Renewal Application for Wheelabrator Baltimore L.P.
Permit No. 24-510-01886

Dear Ms. Wolfe:

Enclosed please find two (2) hard copies, and one electronic copy (via compact disc), of a Part 70 Operating Permit renewal application for Wheelabrator Baltimore L.P., (Wheelabrator) Permit No. 24-510-01886.

The facility was issued a Part 70 Operating Permit (24-510-1886) that was most recently renewed on November 5, 2019 and will expire on August 31, 2024. Since the issuance of the last operating permit, Wheelabrator has replaced the pre-existing electrostatic precipitators (ESPs) serving each of the large municipal waste combustors with state-of-the-art pulse jet fabric filters and installed Advanced Selective Non-Catalytic (ASNCR) NOx control systems. Each fabric filter is equipped with 10 chambers and 169 filter bags per chamber. This installation of the fabric filters and ASNCR systems required the issuance of a state permit on October 19, 2021 to construct with new state enforceable emission limits and modifications to applicable requirements.

**Facility Description**

Wheelabrator operates a municipal solid waste resource recovery facility (SIC Code 4953, NAICS Code 562213) located at 1801 Annapolis Rd, Baltimore, Maryland. The facility consists of three large mass burn waterwall municipal waste combustors (MWC) each rated at 750 tons per day (TPD) yielding a facility wide capacity of 2,250 TPD. The steam that is generated by the MWCs is either sold to a steam distribution system or used to produce electricity via on-site steam turbines.

Combustion gases are exhausted through a stack (Emission Point EP1) that contains three flues, one for each MWC. Each MWC train is now equipped with a urea-based advanced selective non-catalytic reduction (ASNCR) system to control $NO_X$ emissions; a “slaked lime” spray dryer absorber (SDA) system to control acid gas emissions; an activated carbon injection system for enhanced mercury and dioxin/furan control; and a fabric filter or baghouse system to control particulate matter and metals from the exhaust stream. Each stack is equipped with a continuous opacity monitoring system (COMS) and continuous emission monitoring systems (CEMS) for monitoring carbon monoxide (CO), nitrogen oxides ($NO_X$), and sulfur dioxide ($SO_2$) in the stack exhaust gases, as well as an oxygen ($O_2$) and carbon dioxide ($CO_2$) monitors for monitoring the

stack gas dilution. Additionally, $SO_2$ and $O_2$ CEMS are located upstream of control devices for determining percent reduction of $SO_2$.

The facility also has insignificant activities such as ash handling area vents, silo bin vents, and diesel-powered stationary equipment (emergency diesel fire pump). The ash handling areas and the storage silos have a potential to emit for particulate matter of less than 1 ton per year. The diesel fire pump is less than 500 brake horse power. These items are included in the Check-off List of Emissions Units and Activities Exempt from the Part 70 Permit Application.

**Application Organization**

The Part 70 Operating Permit renewal application contains the following completed electronic forms from the application package available on the Department's website:

III. Check-off List of Emissions Units and Activities Exempt from the Part 70 Permit Application;
IV. Application Forms for Part 70 Permit Renewal;
V. Application Forms for State-Only Requirements; and
VI. Application Completeness Checklist.

Attachments included in the renewal application as required by the instructions include the following:

- Last submitted Compliance Certification and Emission Certification Reports;
- Facility Process Flow Diagram and Plot Plan of Overall Plant showing new pulse jet fabric filters; and
- CAM Plan Applicability
- A completed form showing the facility's Federal Employer Identification Number (FEIN).
- Diesel Generator Applicable Requirements

If you have any questions or need any additional information, please feel free to contact me at (410) 234-0808 x212.

Sincerely,

10/17/2023

Jim Robertson
Plant Manager

cc: WTI File

# PART 70 PERMIT APPLICATION FOR RENEWAL OF WHEELABRATOR BALTIMORE, L.P. PERMIT NO. 24-510-01886

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**October 2023**

# PART 70 PERMIT APPLICATION FOR RENEWAL OF WHEELABRATOR BALTIMORE, L.P. PERMIT NO. 24-510-01886

EMISSION UNITS AND ACTIVITIES EXEMPT
FROM THE PART 70 PERMIT APPLICATION

**October 2023**

**MARYLAND DEPARTMENT OF THE ENVIRONMENT**
**AIR AND RADIATION ADMINISTRATION**
**RENEWAL TITLE V APPLICATION INSIGNIFICANT ACTIVITIES LIST**

## III. Check-off List of Emissions Units and Activities Exempt from the Part 70 Permit Application

### Insignificant Activities

Place a check mark beside each type of emissions unit or activity that is located at the facility. Where noted, please indicate the number of that type of emissions unit or activity located at the facility.

(1) No. ___ Fuel burning equipment using gaseous fuels or no. 1 or no. 2 fuel oil, and having a heat input less than 1,000,000 Btu (1.06 gigajoules) per hour;

(2) No. ___ Fuel-burning equipment using solid fuel and having a heat input of less than 350,000 Btu (0.37 gigajoule) per hour;

(3) No. **1** Stationary internal combustion engines with less than 500 brake horsepower (373 kilowatts) of power output;

(4) **X** Space heaters utilizing direct heat transfer and used solely for comfort heat;

(5) ___ Water cooling towers and water cooling ponds unless used for evaporative cooling of water from barometric jets or barometric condensers, or used in conjunction with an installation requiring a permit to operate;

(6) No. **Varies** Unheated VOC dispensing containers or unheated VOC rinsing containers of 60 gallons (227 liters) capacity or less;

(7) ___ Commercial bakery ovens with a rated heat input capacity of less than 2,000,000 Btu per hour;

(8) ___ Kilns used for firing ceramic ware, heated exclusively by natural gas, liquefied petroleum gas, electricity, or any combination of these;

(9) ___ Confection cookers where the products are edible and intended for human consumption;

(10) ___ Die casting machines;

(11) ___ Photographic process equipment used to reproduce an image upon sensitized material through the use of radiant energy;

(12) **X** Equipment for drilling, carving, cutting, routing, turning, sawing, planing, spindle sanding, or disc sanding of wood or wood products;

(13)___ Brazing, soldering, or welding equipment, and cutting torches related to manufacturing and construction activities that emit HAP metals and not directly related to plant maintenance, upkeep and repair or maintenance shop activities;

(14)___ Equipment for washing or drying products fabricated from metal or glass, provided that no VOC is used in the process and that no oil or solid fuel is burned;

(15)___ Containers, reservoirs, or tanks used exclusively for electrolytic plating work, or electrolytic polishing, or electrolytic stripping of brass, bronze, cadmium, copper, iron, lead, nickel, tin, zinc, and precious metals;

(16) Containers, reservoirs, or tanks used exclusively for:

(a) ___ Dipping operations for applying coatings of natural or synthetic resins that contain no VOC;

(b) ___ Dipping operations for coating objects with oils, waxes, or greases, and where no VOC is used;

(c) **X** Storage of butane, propane, or liquefied petroleum, or natural gas;

(d) No**. Varies** Storage of lubricating oils:

(e) No. **4** Unheated storage of VOC with an initial boiling point of 300 °F (149 °C) or greater:

(f) No. **2** Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel;

(g) No. ___ Storage of motor vehicle gasoline and having individual tank capacities of 2,000 gallons (7.6 cubic meters) or less;

(h) No. **Varies** The storage of VOC normally used as solvents, diluents, thinners, inks, colorants, paints, lacquers, enamels, varnishes, liquid resins, or other surface coatings and having individual capacities of 2,000 gallons (7.6 cubic meters) or less;

(17) ___ Gaseous fuel-fired or electrically heated furnaces for heat treating glass or metals, the use of which does not involve molten materials;

(18) Crucible furnaces, pot furnaces, or induction furnaces, with individual capacities of 1,000 pounds (454 kilograms) or less each, in which no sweating or distilling is conducted, or any fluxing is conducted using chloride, fluoride,

or ammonium compounds, and from which only the following metals are poured or in which only the following metals are held in a molten state:

(a) ___ Aluminum or any alloy containing over 50 percent aluminum, if no gaseous chloride compounds, chlorine, aluminum chloride, or aluminum fluoride is used;

(b) ___ Magnesium or any alloy containing over 50 percent magnesium;

(c) ___ Lead or any alloy containing over 50 percent lead;

(d) ___ Tin or any alloy containing over 50 percent tin;

(e) ___ Zinc or any alloy containing over 50 percent zinc;

(f) ___ Copper;

(g) ____ Precious metals;

(19)___ Charbroilers and pit barbecues as defined in COMAR 26.11.18.01 with a total cooking area of 5 square feet (0.46 square meter) or less;

(20) **_X_** First aid and emergency medical care provided at the facility, including related activities such as sterilization and medicine preparation used in support of a manufacturing or production process;

(21) ____ Certain recreational equipment and activities, such as fireplaces, barbecue pits and cookers, fireworks displays, and kerosene fuel use;

(22) ___ Potable water treatment equipment, not including air stripping equipment;

(23)___ Firing and testing of military weapons and explosives;

(24)___ Emissions resulting from the use of explosives for blasting at quarrying operations and from the required disposal of boxes used to ship the explosive;

(25)**_X_** Comfort air conditioning subject to requirements of Title VI of the Clean Air Act;

(26)____ Grain, metal, or mineral extrusion presses;

(27)____ Breweries with an annual beer production less than 60,000 barrels;

(28) **X** Natural draft hoods or natural draft ventilators that exhaust air pollutants into the ambient air from manufacturing/industrial or commercial processes;

(29) **X** Laboratory fume hoods and vents;

(30) No. ___ Sheet-fed letter or lithographic printing press(es) with a cylinder width of less than 18 inches;

*For the following, attach additional pages as necessary:*

(31) Any other emissions unit, not listed in this section, with a potential to emit less than the "de minimus" levels listed in COMAR 26.11.02.10X (list and describe units):

No. **4** **Storage Silos for lime and activated carbon used as reagents in air pollution control devices.**

No. **3** **Wet scrubbers used for ventilation of ash handling area, ash loadout area, and ash trommel area.**

No. ___ _____

No. ___ _____

No. ___ _____

(32) Any other emissions unit at the facility which is not subject to an applicable requirement of the Clean Air Act (list and describe):

No. ___ _____

No. ___ _____

No. ___ _____

# PART 70 PERMIT APPLICATION FOR RENEWAL OF WHEELABRATOR BALTIMORE, L.P. PERMIT NO. 24-510-01886

APPLICATION FORMS FOR RENEWAL

**October 2023**

# PART 70 PERMIT APPLICATION FOR RENEWAL

AIR AND RADIATION MANAGEMENT ADMINISTRATION

Facilities required to obtain a Part 70 permit under COMAR 26.11.03.01 must complete and return this form. Applications are incomplete unless all applicable information required by COMAR 26.11.03.03 and 26.11.03.13 is supplied. Failure to supply additional information required by the Department to enable it to act on the application may result in loss of the application shield and denial of this application.

**Owner and Operator:**

| | | |
|---|---|---|
| Name of Owner or Operator: **Wheelabrator Baltimore L.P.** | | |
| Street Address: **1801 Annapolis Road** | | |
| City: **Baltimore** (City) | State: **Maryland** | Zip Code: **21230** |
| Telephone Number **(410) 234-0808** | | Fax Number **(410) 685-8571** |

**Facility Information:**

| | | |
|---|---|---|
| Name of Facility: **Wheelabrator Baltimore L.P.** | | |
| Street Address: **1801 Annapolis Road** | | |
| City: **Baltimore** (City) | State: **Maryland** | Zip Code: **21230** |
| Plant Manager: **Jim Robertson** | Telephone Number: **(410) 234-0808 x212** | Fax Number: **(410) 685-8571** |
| 24-Hour Emergency Telephone Number for Air Pollution Matters: **(410) 234-0808 x212** | | |

**List, on a separate page, the names and telephone numbers of other facility owners and persons with titles.**

## SECTION 1. CERTIFICATION STATEMENTS

### 1. Compliance Status with Applicable Enhanced Monitoring and Compliance Certification Requirements

The emissions units identified in this application are in compliance with applicable enhanced monitoring and compliance certification requirements.

### 2. Certification of Current Compliance with All Applicable Federally Enforceable Requirements

Except for the requirements identified in Section 7 of this application, for which compliance is not achieved, I hereby certify, based on information and belief formed after reasonable inquiry, that the facility is currently in compliance with all applicable federally enforceable requirements and agree that the facility will continue to comply with those requirements during the permit term.

**You must complete a Section 7 form for each non-complying emissions unit.**

### 3. Statement of Compliance with Respect to All New Applicable Requirements Effective During the Permit Term

I hereby state, based on information and belief formed after reasonable inquiry, that the facility agrees to meet, in a timely manner, all applicable federally enforceable requirements that become effective during the permit term, unless a more detailed schedule is expressly required by the applicable requirement.

### 4. Risk Management Plan Compliance

I hereby certify that, based on information and belief formed after reasonable inquiry, that a Risk Management Plan as required under □112(r) of the Clean Air Act:

[ ] has been submitted;

[ ] will be submitted at a future date; or

[**X**] does not need to be submitted.

## 5. Statement of Truth, Accuracy, and Completeness

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision and in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person(s) who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

RESPONSIBLE OFFICIAL:

X _____ 10/17/2023

SIGNATURE DATE

**Jim Robertson**
PRINTED NAME

**Plant Manager**
TITLE

## SECTION 2. FACILITY DESCRIPTION SUMMARY

### 1. Major Activities of Facility

Briefly describe the major activities, including the applicable SIC Code(s) and end product(s).

**The facility is a municipal solid waste resource recovery facility (SIC Code 4953, NAICS 562213). It consists of three municipal waste combustors (MWC) that generate steam, which is sold to a steam distribution system or is used to produce electricity. Each MWC train is equipped with a urea injection advanced selective non-catalytic reduction (ASNCR) system to control NOX emissions; a "slaked lime" spray dryer absorber (SDA) system to control acid gas emissions; an activated carbon injection system for enhanced mercury and dioxin/furan control; and a pulse jet fabric filter to control particulate matter and metals from the exhaust stream. Three wet scrubbers with vents are used, as necessary, to control particulate matter from ash handling areas (ash handling area vent, ash loadout area vent, and ash trommel area vent). A non-ferrous metal conveyor drops recovered material into a hopper outside the non-ferrous processing building. The facility also includes three lime storage silos equipped with a common bin vent filter and one activated carbon storage silo equipped with a bin vent bag filter. The ash handling areas and storage silos have the potential to emit less than 1 ton per year of particulate matter. Therefore, these sources were listed as insignificant activities in the Title V permit (24-510-01886) and retained as such in this application.**

### 2. Facility-Wide Emissions

A. This facility is required to obtain a Part 70 Operating Permit because it is:
Check appropriate box:

- ☐ Actual Major
- ☐ Potential Major·
- ☑ Solid Waste Incineration Unit Requiring Permit Under § 129(e) of CAA
  ***(Facility is a large MWC subject to § 129(a)(B) of CAA)***

B. List the actual facility-wide emissions below:

PM10 **33.4 tpy** NOx **672.3 tpy** VOC **0.5 tpy** SOx **193.1 tpy** CO **64.7 tpy** HAPs **47.72 tpy (HCl=45.7 tpy)**
***(Based on 2023 Emission Certification for calendar year 2022)***

### 3. Include With the Application:

Flow Diagrams showing all emissions units, emission points, and control devices;
Emissions Certification Report (copy of the most recent submitted to the Department.)

## SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| 1. Emissions Unit No.: **EU1**<br><br>1a. Date of installation (month/year): **May 1985** | 2. MDE Registration No.:(if applicable)<br><br>**24-510-1886-2-0255** |
|---|---|

3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):
**One (1) 750 ton per day Wheelabrator-Frye mass burn waterwall municipal waste combustor equipped with ASNCR, SDA, a pulse jet fabric filter and activated carbon injection systems. Combustion gases are exhausted through a stack (Emission Point EP1) that contains three flues (one for each of the three combustors). Natural gas is utilized for boiler startup, shutdown, and during normal operations when necessary to maintain good combustion. (Boiler No. 1)**

4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: **NOT APPLICABLE**
General Reference:_____

Continuous Processes: _____ hours/day _____ days/year

Batch Processes: _____ hours/batch _____ batches/day

_____ days/year

5. Fuel Consumption:

| Type(s) of Fuel | % Sulfur | Annual Usage (specify units) |
|---|---|---|
| 1. **Municipal Solid Waste** | **N/A** | **273,750 TPY** |
| 2. **Natural Gas** | **N/A** | **27 MMft$^3$/yr[a]** |
| 3. | | |

6. Emissions in Tons:

A. Actual Major: **X(NOx,HCl)** Potential Major: **X(PM,NOx,SO2,CO, HCl)** (note: before control device)

B. Actual Emissions: NOx **276.9** SOx **74.3** VOC **0.2** PM10 **8.3** HAPs **34.1 (HCl=33.3)**
***(Based on 2023 Emission Certification for Calendar Year 2022)***

**[a]PSD Approval No. 83-01, Part I, Condition 5. This is a facility-wide limit.**

**SECTION 3A. EMISSIONS UNIT DESCRIPTIONS**

| 1. Emissions Unit No.: **EU2**<br><br>1a. Date of installation (month/year): **May 1985** | 2. MDE Registration No.:(if applicable)<br><br>**24-510-1886-2-0256** |
|---|---|

3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):
**One (1) 750 ton per day Wheelabrator-Frye mass burn waterwall municipal waste combustor equipped with ASNCR, SDA, a pulse jet fabric filter and activated carbon injection systems. Combustion gases are exhausted through a stack (Emission Point EP1) that contains three flues (one for each of the three combustors). Natural gas is utilized for boiler startup, shutdown, and during normal operations when necessary to maintain good combustion. (Boiler No. 2)**

4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: **NOT APPLICABLE**
General Reference:_____

Continuous Processes: _____ hours/day _____ days/year

Batch Processes: _____ hours/batch _____ batches/day

_____ days/year

5. Fuel Consumption:

| Type(s) of Fuel | % Sulfur | Annual Usage (specify units) |
|---|---|---|
| 1. **Municipal Solid Waste** | **N/A** | **273,750 TPY** |
| 2. **Natural Gas** | **N/A** | **27 MMft$^3$/yr[a]** |
| 3. | | |

6. Emissions in Tons:

A. Actual Major: **X(NOx,HCl)** Potential Major: **X(PM,NOx,SO2,CO, HCl)** (note: before control device)

C. Actual Emissions: NOx **219.2** SOx **64.1** VOC **0.0** PM10 **17.2** HAPs **6.76 (HCl=6.1)**
***(Based on 2023 Emission Certification for Calendar Year 2022)***

**[a]PSD Approval No. 83-01, Part I, Condition 5. This is a facility-wide limit.**

## SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| 1. Emissions Unit No.: **EU3**<br><br>1a. Date of installation (month/year): **May 1985** | 2. MDE Registration No.:(if applicable)<br><br>**24-510-1886-2-0257** |
|---|---|

3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):
**One (1) 750 ton per day Wheelabrator-Frye mass burn waterwall municipal waste combustor equipped with ASNCR, SDA, a pulse jet fabric filter and activated carbon injection systems. Combustion gases are exhausted through a stack (Emission Point EP1) that contains three flues (one for each of the three combustors). Natural gas is utilized for boiler startup, shutdown, and during normal operations when necessary to maintain good combustion. (Boiler No. 3)**

4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: **NOT APPLICABLE**
General Reference:_____

Continuous Processes: _____ hours/day _____ days/year

Batch Processes: _____ hours/batch _____ batches/day

_____ days/year

5. Fuel Consumption:

| Type(s) of Fuel | % Sulfur | Annual Usage (specify units) |
|---|---|---|
| 1. **Municipal Solid Waste** | **N/A** | **273,750 TPY** |
| 2. **Natural Gas** | **N/A** | **27 MMft$^3$/yr[a]** |
| 3. | | |

6. Emissions in Tons:

A. Actual Major: **X(NOx,HCl)** Potential Major: **X(PM,NOx,SO2,CO, HCl)** (note: before control device)

D. Actual Emissions: NOx **176.2** SOx **54.7** VOC **0.3** PM10 **7.9** HAPs **6.86 (HCl=6.3)**
***(Based on 2023 Emission Certification for Calendar Year 2022)***

**[a]PSD Approval No. 83-01, Part I, Condition 5. This is a facility-wide limit.**

## SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

**Emissions Unit No.: EU1 – EU3** **General Reference: COMAR 26.11.08.08A(1) and (3)**
(Current Title V Permit Condition IV-1.1A)

Briefly describe the Emission Standard/Limit or Operational Limitation:
**Applicable Standards/Limits–Existing Large MWC Emission Limits–The Permittee shall comply with the existing Large MWC emissions limits and operational standards found in Table IV-1A that follows this table. The standards in COMAR 26.11.08.08A(2) apply at all times except during periods of startup, shutdown, or malfunction as provided in 40 CFR §60.58b(a).**

Permit Shield Request: _____

**Compliance Demonstration:**

Check appropriate reports required to be submitted:
- ☑ Quarterly Monitoring Report:_____
- ☑ Annual Compliance Certification:_____
- ☑ Semi-Annual Monitoring Report: _____

Methods used to demonstrate compliance:

Monitoring: Reference **(see attached)** Describe: **See References 4-13 in the Attachment at the end of Section 3B, which lists the Monitoring Requirements taken from Section IV-1.3 of the current Title V Permit.**

Testing: Reference **(see attached)** Describe: **See Reference 1 in the Attachment at the end of Section 3B, which lists the Testing Requirements taken from Section IV-1.2 of the current Title V Permit.**

Record Keeping: Reference **(see attached)** Describe: **See References 18-23 in the Attachment at the end of Section 3B, which lists the Recordkeeping Requirements taken from Section IV-1.4 of the current Title V Permit.**

Reporting: Reference **(see attached)** Describe: **See References 30-34 in the Attachment at the end of Section 3B, which lists the Reporting Requirements taken from Section IV-1.5 of the current Title V Permit.**

**Frequency of submittal of the compliance demonstration: As Required**

**SECTION 3B. Table COMAR 26.11.08.08A(2)–Emission Standards and General Requirements**
**ATTACHMENT for Existing Large MWC with a Capacity Greater than 250 Tons Per Day**

| Pollutant or Parameter | Emission Standards for a Large MWC | Performance and Compliance Test Requirements |
|---|---|---|
| Opacity | 10 percent opacity with Continuous Opacity Monitoring System (COMS) based on 6-minute block averages. | EPA Reference Method 9 and COMS. Applicable test procedures and methods as specified in 40 CFR 60.58b(c). Quality assurance and quality control requirements are as in Technical Memorandum 90-01. In case of inconsistencies in data or conflicting data Method 9 results will determine compliance. |
| Particulate Matter | 25 mg/dscm* | EPA Reference Method 5. Annual test, methods and procedures as specified in 40 CFR 60.58b(c). |
| $SO_2$ (Sulfur Dioxide) | 29 ppmv* - 24-hr. geometric mean or 75 percent reduction, whichever is less restrictive. | CEMS. Applicable test procedures and methods as specified in 40 CFR 60.58b(e). |
| $NO_x$ (Oxides of Nitrogen) | 205 ppmv* - 24-hr. arithmetic average for Mass burn waterwall MWC. | CEMS. Applicable test procedures and methods as provided in 40 CFR 60.58b(h). |
| Carbon Monoxide | 100 ppmv* - 4-hr. block avg. | CEMS. Methods and procedures as specified in 40 CFR 60.58b(b) and 40 CFR 60.58b(i). |
| HCl (Hydrogen Chloride) | 29 ppmv* or 95 percent removal efficiency whichever is less restrictive. | EPA Reference Method 26 or 26A. Annual test except as provided in 40 CFR 60.58b(f). Applicable test procedures and methods as provided in 40 CFR 60.58b(f). |
| Dioxin/Furans | 30 ng/dscm* (total mass) for Non-ESP based control device. | EPA Reference Method 23. Annual test except as provided in 40 CFR 60.58b(g)(5)(iii) and 40 CFR 60.38b(b). Applicable test procedures and methods as specified in 40 CFR 60.58b(g). |
| Cd (Cadmium) | 35 µg/dscm* | EPA Reference Method 29. Annual test except as provided in 40 CFR 60.58b(d). Applicable test procedures and methods as specified in 40 CFR 60.58b(d). |
| Pb (Lead) | 400 µg/dscm* | EPA Reference Method 29. Annual test except as provided in 40 CFR 60.58b(d). Applicable test procedures and methods as specified in 40 CFR 60.58b(d). |
| Hg (Mercury) | 50 µg/dscm* or 85% reduction by weight applies if less restrictive that the above. | EPA Reference Method 29. Annual test except as provided in 40 CFR 60.58b(d) and (m). Applicable test procedures and methods as provided in 40 CFR 60.58b(d). |
| Load | Not to exceed 110 percent of maximum load during most recent dioxin/furan performance test. | Continuous monitoring. - 4-hr. block arithmetic average steam load. Applicable test procedures and methods are as provided in 40 CFR 60.58b(i)(6) and (8). |
| Temperature | The maximum particulate matter control device inlet temperature must not exceed by more than 17 degrees Celsius the temperature during the most recent dioxin/furan test. | Continuous monitoring. The temperature shall be calculated in 4-hr. block arithmetic averages. Applicable test procedures and methods satisfying the requirements of 40 CFR 60.58b(i)(7) and (9) and exemptions in 40 CFR 60.53b(c). |
| Fugitive Ash Emissions | Visible emissions less than 5 percent of the observation period during ash transfer. | EPA Reference Method 9 observations as specified in 40 CFR 60.58b(k). Annual test. The emission limit excludes visible emissions discharged inside buildings or enclosures of ash-conveying systems or during maintenance and repair of ash-conveying systems as specified in 40 CFR 60.55b. |

*Corrected to 7 percent oxygen on dry basis. If a CO2 monitor is selected as the diluent monitor, it must meet the requirements of 40 CFR §60.58(b)(6).

## SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

**Emissions Unit No.:** EU1 – EU3 **General Reference:** COMAR 26.11.08.09B(1) and (2)
(Current Title V Permit Condition IV-1.1B(1))

Briefly describe the Emission Standard/Limit or Operational Limitation:
**Incinerator Operator Training–Certification Requirement–A person may not operate or allow an incinerator to be operated unless the owner certifies to the Department on a form approved by the Department that the incinerator operator: (a) Has completed an initial training course approved by the Department which meets the requirements of COMAR 26.11.08.09D; and (b) Annually, after initial certification, completes a review course approved by the Department.**
Permit Shield Request:

**Compliance Demonstration:**

Check appropriate reports required to be submitted:
- ☐ Quarterly Monitoring Report:
- ☑ Annual Compliance Certification:
- ☐ Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: Reference **N/A** Describe:

Testing: Reference **N/A** Describe:

Record Keeping: Reference **(see attached)** Describe: **See Reference 24 in the Attachment at the end of Section 3B, which lists the Recordkeeping Requirements taken from Section IV-1.4 of the current Title V Permit.**

Reporting: Reference **(see attached)** Describe: **See Reference 35 in the Attachment at the end of Section 3B, which lists the Reporting Requirements taken from Section IV-1.5 of the current Title V Permit.**

**Frequency of submittal of the compliance demonstration: Annually**

## SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

**Emissions Unit No.: EU1 – EU3** **General Reference: COMAR 26.11.08.09D(1)**
(Current Title V Permit Condition IV-1.1B(2))

Briefly describe the Emission Standard/Limit or Operational Limitation:
**Incinerator Operator Training–For any incinerator operator who operates a municipal waste combustor (MWC), the training course shall address the following subjects in detail: (a) Overall operation, maintenance, and performance of the facility; (b) Start-up and shut-down of the facility; (c) Applicable federal, State, and local environmental regulations, and sanctions for violations; (d) Policies and procedures for proper and safe plant operation; (e) Maintaining records of facility operations; (f) Actions to correct upsets or emergencies; (g) Control room operations; (h) Ash handling and disposal; (i) Combustion theory; (j) Air pollution control technology; and (k) Continuous emission monitors and their calibration, and quality assurance requirements.**
Permit Shield Request: _____

**Compliance Demonstration:**

Check appropriate reports required to be submitted:
- ☐ Quarterly Monitoring Report:_____
- ☑ Annual Compliance Certification:_____
- ☐ Semi-Annual Monitoring Report: _____

Methods used to demonstrate compliance:

Monitoring: Reference **N/A** Describe: _____

Testing: Reference **N/A** Describe: _____

Record Keeping: Reference **(see attached)** Describe: **See Reference 24 in the Attachment at the end of Section 3B, which lists the Recordkeeping Requirements taken from Section IV-1.4 of the current Title V Permit.**

Reporting: Reference **(see attached)** Describe: **See Reference 35 in the Attachment at the end of Section 3B, which lists the Reporting Requirements taken from Section IV-1.5 of the current Title V Permit.**

**Frequency of submittal of the compliance demonstration: Annually**

## SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

**Emissions Unit No.: EU1 – EU3** **General Reference: COMAR 26.11.08.09D(2)**
(Current Title V Permit Condition IV-1.1B(3))

Briefly describe the Emission Standard/Limit or Operational Limitation:
**Incinerator Operator Training–For the operator of any municipal waste combustor (MWC), completing a training course means: (a) Completing an initial training course approved by the Department of at least 5 days (40 hours) duration; and (b) Passing a written test approved by the Department.**

Permit Shield Request: _____

**Compliance Demonstration:**

Check appropriate reports required to be submitted:
- ☐ Quarterly Monitoring Report:_____
- ☑ Annual Compliance Certification:_____
- ☐ Semi-Annual Monitoring Report: _____

Methods used to demonstrate compliance:

Monitoring: Reference **N/A** Describe: _____

Testing: Reference **N/A** Describe: _____

Record Keeping: Reference **(see attached)** Describe: **See Reference 24 in the Attachment at the end of Section 3B, which lists the Recordkeeping Requirements taken from Section IV-1.4 of the current Title V Permit.**

Reporting: Reference **(see attached)** Describe: **See Reference 35 in the Attachment at the end of Section 3B, which lists the Reporting Requirements taken from Section IV-1.5 of the current Title V Permit.**

**Frequency of submittal of the compliance demonstration: Annually**

## SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

**Emissions Unit No.: EU1 – EU3** **General Reference: COMAR 26.11.08.09D(4)**
(Current Title V Permit Condition IV-1.1B(4))

Briefly describe the Emission Standard/Limit or Operational Limitation:
**Incinerator Operator Training–The certified operator shall, after initial training, complete and pass an annual review course approved by the Department of at least 1-day (8 hours) duration.**

Permit Shield Request: _____

**Compliance Demonstration:**

Check appropriate reports required to be submitted:
- ☐ Quarterly Monitoring Report:_____
- ☑ Annual Compliance Certification:_____
- ☐ Semi-Annual Monitoring Report: _____

Methods used to demonstrate compliance:

Monitoring: Reference **N/A** Describe:

Testing: Reference **N/A** Describe:

Record Keeping: Reference **(see attached)** Describe: **See Reference 24 in the Attachment at the end of Section 3B, which lists the Recordkeeping Requirements taken from Section IV-1.4 of the current Title V Permit.**

Reporting: Reference **(see attached)** Describe: **See Reference 35 in the Attachment at the end of Section 3B, which lists the Reporting Requirements taken from Section IV-1.5 of the current Title V Permit.**

**Frequency of submittal of the compliance demonstration: Annually**

## SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

**Emissions Unit No.:** EU1 – EU3 **General Reference:** COMAR 26.11.08.09H(1) and (2)
(Current Title V Permit Condition IV-1.1B(5))

Briefly describe the Emission Standard/Limit or Operational Limitation:
**Incinerator Operator Training–Operations and Maintenance Manual. (a) The owner or operator of a large MWC shall develop and maintain on-site, an operations and maintenance manual that contains, at a minimum, all of the course content requirements in COMAR 26.11.08.09D(1) and in 40 CFR §60.54b(e). (b) The operations and maintenance manual shall be updated annually.**

Permit Shield Request: _____

**Compliance Demonstration:**

Check appropriate reports required to be submitted:

- ☐ Quarterly Monitoring Report:_____
- ☑ Annual Compliance Certification:_____
- ☐ Semi-Annual Monitoring Report: _____

Methods used to demonstrate compliance:

Monitoring: Reference **N/A** Describe: _____

Testing: Reference **N/A** Describe:

Record Keeping: Reference **(see attached)** Describe: **See Reference 24 in the Attachment at the end of Section 3B, which lists the Recordkeeping Requirements taken from Section IV-1.4 of the current Title V Permit.**

Reporting: Reference **N/A** Describe: **See Reference 35 in the Attachment at the end of Section 3B, which lists the Reporting Requirements taken from Section IV-1.5 of the current Title V Permit.**

**Frequency of submittal of the compliance demonstration: Annually**

## SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

**Emissions Unit No.: EU1 – EU3** **General Reference: PSD Approval No. 83-01**
(Current Title V Permit Condition IV-1.1C(1)

Briefly describe the Emission Standard/Limit or Operational Limitation:
**PSD Approval No. 83-01 Part I–Condition 1–The Permittee shall not exceed the facility-wide (MWC Units #1, 2 & 3) emissions limitations specified below: SO2: 375 lbs/hr and 1,478 tons/year; CO: 121 lbs/hr and 477 tons/year; NO2: 298 lbs/hr and 1,176 tons/year; Fluorides: 12 lbs/hr and 47 tons/year. (a) Compliance with the facility wide lbs/hr PSD emission limit shall be determined as follows: ● SO2, CO and NOx: 8-hour block average. A valid facility eight-hour block average is based on a minimum of 6 hours of total facility hourly data. ● Fluorides: the average of three test runs using EPA reference Method 13B, 26A, or equivalent. ● All emissions associated with startup, shutdown, and malfunction episodes are included in the pounds per hour standard. (b) The tons per year PSD emission limits are a 12-month composite (rolling monthly) and includes all emissions associated with startup, shutdown, and malfunction episodes.**

Permit Shield Request: _____

**Compliance Demonstration:**

Check appropriate reports required to be submitted:

- ☑ Quarterly Monitoring Report:_____
- ☑ Annual Compliance Certification:_____
- ☑ Semi-Annual Monitoring Report: _____

Methods used to demonstrate compliance:

Monitoring: Reference **(see attached)** Describe: **See Reference 15 in the Attachment at the end of Section 3B, which lists the Monitoring Requirements taken from Section IV-1.3 of the current Title V Permit.**

Testing: Reference **(see attached)** Describe: **See Reference 2 in the Attachment at the end of Section 3B, which lists the Testing Requirements taken from Section IV-1.2 of the current Title V Permit.**

Record Keeping: Reference **(see attached)** Describe: **See References 25-27 in the Attachment at the end of Section 3B, which lists the Recordkeeping Requirements taken from Section IV-1.4 of the current Title V Permit.**

Reporting: Reference **(see attached)** Describe: **See References 36-39 in the Attachment at the end of Section 3B, which lists the Reporting Requirements taken from Section IV-1.5 of the current Title V Permit.**

**Frequency of submittal of the compliance demonstration: As Required**

**SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS**

**Emissions Unit No.: EU1 – EU3** **General Reference: PSD Approval No. 83-01**
(Current Title V Permit Condition IV-1.1C(2))

Briefly describe the Emission Standard/Limit or Operational Limitation:
**Part I–Condition 4 (page 2 of 4)–The Permittee shall develop and submit to the Department for approval, procedures to ensure that only acceptable wastes as defined in Appendix A of the PSD application are incinerated.**

Permit Shield Request: _____

**Compliance Demonstration:**

Check appropriate reports required to be submitted:
- ☐ Quarterly Monitoring Report:_____
- ☑ Annual Compliance Certification:_____
- ☐ Semi-Annual Monitoring Report: _____

Methods used to demonstrate compliance:

Monitoring: Reference **N/A** Describe:

Testing: Reference **N/A** Describe:

Record Keeping: Reference **(see attached)** Describe: **See Reference 25 in the Attachment at the end of Section 3B, which lists the Recordkeeping Requirements taken from Section IV-1.4 of the current Title V Permit.**

Reporting: Reference **N/A** Describe: **The Refuse Inspection Procedure has been submitted and approved by the Department. All incidents of rejected materials, e.g., hazardous or nuclear waste, are reported to the Department.**

**Frequency of submittal of the compliance demonstration: Annually**

## SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

**Emissions Unit No.: EU1 – EU3** **General Reference: PSD Approval No. 83-01**
(Current Title V Permit Condition IV-1.1C(3))

Briefly describe the Emission Standard/Limit or Operational Limitation:
**Part I–Condition 5 (page 2 of 4)–The start-up fuel for the incinerator shall be natural gas. The incinerator shall not exceed a fuel consumption rate of 2.7 x $10^7$ $ft^3$ of natural gas in any one-year period.**

Permit Shield Request: _____

**Compliance Demonstration:**

Check appropriate reports required to be submitted:
- ☑ Quarterly Monitoring Report:_____
- ☑ Annual Compliance Certification:_____
- ☐ Semi-Annual Monitoring Report: _____

Methods used to demonstrate compliance:

Monitoring: Reference **(see attached)** Describe: **See Reference 14 in the Attachment at the end of Section 3B, which lists the Monitoring Requirements taken from Section IV-1.3 of the current Title V Permit.**

Testing: Reference **N/A** Describe: _____

Record Keeping: Reference **(see attached)** Describe: **See Reference 25 in the Attachment at the end of Section 3B, which lists the Recordkeeping Requirements taken from Section IV-1.4 of the current Title V Permit.**

Reporting: Reference **(see attached)** Describe: **See Reference 38 in the Attachment at the end of Section 3B, which lists the Reporting Requirements taken from Section IV-1.5 of the current Title V Permit.**

**Frequency of submittal of the compliance demonstration: As Required**

## SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

**Emissions Unit No.: EU1 – EU3** **General Reference: NSINA Approval 83-01**
(Current Title V Permit Condition IV-1.1D)

Briefly describe the Emission Standard/Limit or Operational Limitation:
**Condition 3 (page 2 of 2) – Each furnace shall be equipped with pulse jet fabric filters that shall be operated such that the particulate grain loadings at the outlet ends of the fabric filter complies with the 0.017 gr/dscf [(corrected to 12% CO2)] particulate matter emission standard for large MWCs. Note: compliance with the existing Large MWC particulate emission limit of 25 mg/dscm (0.01093 gr/dscf) and testing, recordkeeping and monitoring requirements under COMAR 26.11.08.08A(2) assures compliance with the New Source Impacting on a Non-Attainment Area (NSINA) limit.**
Permit Shield Request: _____

**Compliance Demonstration:**

Check appropriate reports required to be submitted:
- ☐ Quarterly Monitoring Report:_____
- ☐ Annual Compliance Certification:_____
- ☐ Semi-Annual Monitoring Report: _____

Methods used to demonstrate compliance:

Monitoring: Reference **(see attached)** Describe: **See Reference 16 in the Attachment at the end of Section 3B-in Monitoring Requirements, taken from Section IV-1.3 of the current Title V Permit.**
**NOTE THAT NO MONITORING IS REQUIRED FOR NSINA LIMIT**

Testing: Reference **(see attached)** Describe: **See Reference 3 in the Attachment at the end of Section 3B-in Testing Requirements, taken from Section IV-1.2 of the current Title V Permit.**
**NOTE THAT NO TESTING IS REQUIRED FOR NSINA LIMIT**

Record Keeping: Reference **(see attached)** Describe: **See Reference 28 in the Attachment at the end of Section 3B-in Recordkeeping Requirements, taken from Section IV-1.4 of the current Title V Permit. NOTE THAT NO RECORDKEEPING IS REQUIRED FOR NSINA LIMIT**

Reporting: Reference **(see attached)** Describe: **See Reference 41 in the Attachment at the end of Section 3B-in Reporting Requirements, taken from Section IV-1.5 of the current Title V Permit.**
**NOTE THAT NO REPORTING IS REQUIRED FOR NSINA LIMIT**

**Frequency of submittal of the compliance demonstration: NO REQUIREMENTS**

**SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS**

**Emissions Unit No.: EU1 – EU3** **General Reference: COMAR 26.11.08.04B&C**
(Current Title V Permit Condition IV-1.1E)

Briefly describe the Emission Standard/Limit or Operational Limitation:
**Visible Emissions–No emissions, other than water in an uncombined form, visible to human observers. The no visible emission requirement does not apply to emissions during startup, or adjustments, or occasional cleaning of control equipment, if: (1) The visible emissions are not greater than 40 percent opacity; and (2) the visible emissions do not occur for more than 6 consecutive minutes in any 60 minute period.**

Permit Shield Request: _____

**Compliance Demonstration:**

Check appropriate reports required to be submitted:
- ☑ Quarterly Monitoring Report:_____
- ☑ Annual Compliance Certification:_____
- ☐ Semi-Annual Monitoring Report: _____

Methods used to demonstrate compliance:

Monitoring: Reference **(see attached)** Describe: **See Reference 17 in the Attachment at the end of Section 3B, which lists the Monitoring Requirements taken from Section IV-1.3 of the current Title V Permit.**

Testing: Reference **N/A** Describe:_____

Record Keeping: Reference **(see attached)** Describe: **See Reference 29 in the Attachment at the end of Section 3B, which lists the Recordkeeping Requirements taken from Section IV-1.4 of the current Title V Permit.**

Reporting: Reference **(see attached)** Describe: **See Reference 42 in the Attachment at the end of Section 3B, which lists the Reporting Requirements taken from Section IV-1.5 of the current Title V Permit.**

**Frequency of submittal of the compliance demonstration: As Required**

**SECTION 3B. Testing/Monitoring/Recordkeeping/Reporting Requirements from Sections IV-1.2/1.3/1.4/1.5, respectively, of the Current Title V Permit**
**ATTACHMENT for all Applicable Federally Enforceable Requirements**



Methods used to demonstrate compliance:

*Testing Requirements from Section IV-1.2 of the Current Title V Permit:*

Reference (1) **COMAR 26.11.08.08A(2)**. Describe: **Existing Large MWC Emission Limits**
**Perform testing requirements for the emissions and operational parameters in accordance with the test methods and specified frequencies referenced in Table IV-1A for existing large MWCs no less than 9 months and no more than 15 months following the previous test.** ..... Title V Permit Condition IV-1.2A

Reference (2) **COMAR 26.11.03.06C(3)**. Describe: **PSD Approval 83-01**
**Perform annual testing for fluorides no less than 9 months and no more than 15 months following the previous test using EPA Reference Method 13B or 26A or equivalent. Testing may be combined with the existing large MWC annual HCl testing.** ..... Title V Permit Condition IV-1.2C

Reference (3) **COMAR 26.11.03.06C(3)**. Describe: **NSINA Approval 83-01**
**The Permittee shall perform annual testing for particulate emissions in accordance with the standards for existing large MWCs as provided in COMAR 26.11.08.08A(2).**
Note: The NSINA particulate emissions standard is subsumed by the particulate emissions standard of COMAR 26.11.08.08A(2). ..... Title V Permit Condition IV-1.2D

*Monitoring Requirements from Section IV-1.3 of the Current Title V Permit:*

Reference (4) **COMAR 26.11.01.11B(3) & 26.11.08.08B(1).** Describe: **Existing Large MWC Emission Limits**
**The Permittee shall: (a) Install, calibrate, operate and maintain continuous emission monitors for carbon monoxide, oxygen, opacity, oxides of nitrogen, and sulfur dioxide; (b) Locate monitors downstream of the final air pollution control device to measure concentrations of oxygen, oxides of nitrogen, sulfur dioxide, and opacity of the exhaust gases; and (c) Install, operate, and maintain at a minimum, one temperature monitor to measure the temperature of the flue gas as it enters the particulate matter control device.** .....Title V Permit Condition IV-1.3A(1)

Reference (5) **COMAR 26.11.08.08B(2)**. Describe: **Existing Large MWC Emission Limits.....**
**If the percent removal option is to be used to show compliance with Sec. B(1)(b) of this regulation, sulfur dioxide and oxygen monitors shall also be located upstream of the pollution control device. Monitors shall be located at the combustor outlet exit to measure concentrations of carbon monoxide.**
Note: $SO_2$ and $O_2$ are measured upstream of the air pollution control device to calculate % removal and CO is measured downstream of air pollution control devices as approved per COMAR 26.11.08.08B(4).
..... Title V Permit Condition IV-1.3A(2)

Reference (6) **COMAR 26.11.08.08B(3)**. Describe: **Existing Large MWC Emission Limits**
**The monitors required by COMAR 26.11.08.08B(1)(a) and (b) of this regulation shall meet the installation, certification, reporting, record-keeping, and other requirements of COMAR 26.11.01.10, performance specifications in 40 CFR Part 60, Appendix B, the quality assurance procedures in 40 CFR Part 60, Appendix F, specifications in 40 CFR Sec. 60.58b, and the specifications in the Department's Air and Radiation Management Administration Technical memorandum 90-01 "Continuous Emission Monitoring (CEM) Policies and Procedures", which is incorporated by reference in COMAR 26.11.01.10E.**..... Title V Permit Condition IV-1.3A(3)

**SECTION 3B. Testing/Monitoring/Recordkeeping/Reporting Requirements from Sections IV-1.2/1.3/1.4/1.5, respectively, of the Current Title V Permit**
**ATTACHMENT for all Applicable Federally Enforceable Requirements**



Methods used to demonstrate compliance: (continued)

*Monitoring Requirements from Section IV-1.3 of the Current Title V Permit: (Cont'd)*

Reference (7) **COMAR 26.11.08.08B(4)**. Describe: **Existing Large MWC Emission Limits**
**A person shall apply for and receive written approval from the Department before installing any of the monitors required in this chapter.** ..... Title V Permit Condition IV-1.3A(4)

Reference (8) **40 CFR 60.58b(m)(1)**. Describe: **Carbon Feed Rate Monitoring Requirements**
**During the performance tests for dioxins/furans and mercury, as applicable, the owner or operator shall estimate an average carbon mass feed rate based on carbon injection system operating parameters such as the screw feeder speed, hopper volume, hopper refill frequency, or other parameters appropriate to the feed system being employed.**.....Title V Permit Condition IV-1.3A(5)

Reference (9) **40 CFR 60.58b(m)(1)(i).** Describe: **Carbon Feed Rate Monitoring Requirements**
**An average carbon mass feed rate in kilograms per hour or pounds per hour shall be estimated during the initial performance tests for mercury emissions and each subsequent performance test for mercury emissions.** .....Title V Permit Condition IV-1.3A(6)

Reference (10) **40 CFR 60.58b(m)(1)(ii).** Describe: **Carbon Feed Rate Monitoring Requirements**
**An average carbon mass feed rate in kilograms per hour or pounds per hour shall be estimated during the initial performance tests for dioxin/furan emissions and each subsequent performance test for dioxin/furan emissions. If a subsequent dioxin/furan performance test is being performed on only one affected facility at the MWC plant, the owner or operator may elect to apply the same estimated average carbon feedrate from the tested facility for all the similarly designed and operated facilities at the MWC plant.** .....Title V Permit Condition IV-1.3A(7)

Reference (11) **40 CFR 60.58b(m)(2).** Describe: **Carbon Feed Rate Monitoring Requirements**
**During operation of the affected facility, the carbon injection system operating parameter(s) that are the primary indicator(s) of the carbon mass feed rate shall be averaged over a block 8-hour period and the 8-hour block average must exceed or equal the level(s) documented during the performance tests specified under 40 CFR 60.58b(m)(1)(i)&(ii) except as specified in §§(m)(2)(i) and §§(m)(2)(ii).**
.....Title V Permit Condition IV-1.3A(8)

Reference (12) **40 CFR 60.58b(m)(2)(i).** Describe: **Carbon Feed Rate Monitoring Requirements**
**During the annual dioxin/furan or mercury performance test and the 2 weeks preceding the annual performance test, no limit is applicable for the average mass carbon feed rate if the provisions of §§(m)(2)(ii) are met.** .....Title V Permit Condition IV-1.3A(9)

Reference (13) **40 CFR 60.58b(m)(2)(ii).** Describe: **Carbon Feed Rate Monitoring Requirements**
**The limit for average mass carbon feed rate may be waived in accordance with permission granted by the Administrator for the purpose of evaluating system performance, testing new technology or control technology, diagnostic testing or related activities.** .....Title V Permit Condition IV-1.3A(10)

**SECTION 3B. Testing/Monitoring/Recordkeeping/Reporting Requirements from Sections IV-1.2/1.3/1.4/1.5, respectively, of the Current Title V Permit**
**ATTACHMENT for all Applicable Federally Enforceable Requirements**



Methods used to demonstrate compliance: (continued)

*Monitoring Requirements from Section IV-1.3 of the Current Title V Permit: (Cont'd)*

Reference (14) **COMAR 26.11.03.06C(3)**. Describe: **PSD Approval 83-01**
**The Permittee shall monitor natural gas fuel usage to ensure compliance with the PSD limitation. Total facility fuel usage shall be calculated on a 12 month rolling average basis.**
..... Title V Permit Condition IV-1.3C(1)

Reference (15) **COMAR 26.11.03.06C(3)**. Describe: **PSD Approval 83-01**
**The Permittee shall continuously monitor pollutants and other parameters necessary to calculate the pounds per hour PSD limits. The methodology for calculating the lbs/hr emissions shall be as follows: Average lbs/hour = ppm X AFSF factor (DSCFH/Klbs) X actual steam flow (Klbs/hr) X Conversion Factor, where: ● ppm = CEM hourly average ppmdv for CO, NOx, and SO2; ● Stack test air flow to steam flow factor (AFSF) = Dry standard cubic foot per hour air flow per thousand lbs steam (DSCFH/Klb); ● Actual steam flow (Klbs/hour); ● Conversion Factor = From 40 CFR Part 60 Appendix B Method 19 (procedures for converting ppm to lbs/dscf) SO2 = 1.66E-07, NOx = 1.194E-07, CO = 7.27E-08.**.....Title V Permit Condition IV-1.3C(2)

Reference (16) **COMAR 26.11.08.08A(2)**. Describe: **NSINA Approval 83-01**
**None – Particulate emissions limit has been subsumed under existing large MWC particulate limit in COMAR 26.11.08.08A(2).**..... Title V Permit Condition IV-1.3D

Reference (17) **COMAR 26.11.03.06C(3)**. Describe: **Visible Emissions**
**Periodic monitoring shall be done using EPA Reference Method 9 observations on a monthly basis. Observation shall be conducted over a 15-minute period.**.....Title V Permit Condition IV-1.3E

*Record Keeping Requirements from Section IV-1.4 of the Current Title V Permit:*

Reference (18) **COMAR 26.11.08.08C(1).** Describe: **Existing Large MWC Emission Limits**
**The Permittee shall report and maintain records in accordance with 40 CFR Sec. 60.59b of Subpart Eb, as applicable, except for the siting requirements under Sec. 60.59b(a), (b)(5), and (d)(11) of 40 CFR 60 Subpart Eb**.....Title V Permit Condition IV-1.4A(1)

Reference (19) **COMAR 26.11.08.08C(2).** Describe: **Existing Large MWC Emission Limits**
**Continuous emissions monitoring data reduction and data availability shall be in accordance with COMAR 26.11.01.10. If there is any inconsistency between COMAR 26.11.01.10 and 40 CFR Part 60, the requirements of 40 CFR Part 60 govern.**.....Title V Permit Condition IV-1.4A(2)

Reference (20) **40 CFR 60.58b(m)(3).** Describe: **Existing Large MWC Emission Limits**
**The Permittee shall estimate the total carbon usage of the plant for each calendar quarter by two independent methods as stated in conditions 4 and 5 below.**.....Title V Permit Condition IV-1.4A(3)

**SECTION 3B. Testing/Monitoring/Recordkeeping/Reporting Requirements from Sections IV-1.2/1.3/1.4/1.5, respectively, of the Current Title V Permit**
**ATTACHMENT for all Applicable Federally Enforceable Requirements**



Methods used to demonstrate compliance: (continued)

*Record Keeping Requirements from Section IV-1.4 of the Current Title V Permit: (Cont'd)*

Reference (21) **40 CFR 60.58b(m)(3)(i).** Describe: **Existing Large MWC Emission Limits**
**The Permittee shall estimate total carbon usage at the plant by maintaining records of the weight of carbon delivered to the plant on a quarterly basis.** .....Title V Permit Condition IV-1.4A(4)

Reference (22) **40 CFR 60.58b(m)(3)(ii).** Describe: **Existing Large MWC Emission Limits**
**The Permittee shall estimate the average carbon mass feed rate for each hour of operation for each affected facility based on the carbon feed system parameters specified during performance testing. The Permittee shall sum the results for all affected facilities at the plant for the total number of hours of operation during the calendar quarter.** .....Title V Permit Condition IV-1.4A(5)

Reference (23) **COMAR 26.11.03.06C.** Describe: **Existing Large MWC Emission Limits**
**The Permittee shall retain records of quarterly carbon usage using the methods described above for a period of 5 years and make that data available to the Department upon request.**
..... Title V Permit Condition IV-1.4A(6)

Reference (24) **COMAR 26.11.08.09 & 26.11.03.06C(3).** Describe: **Incinerator Operator Training**
**The Permittee shall maintain a copy of a certificate issued by the Department to each incinerator operator who has satisfactorily completed an approved incinerator training course and has passed the exit exam.**..... Title V Permit Condition IV-1.4B

Reference (25) **COMAR 26.11.03.06C.** Describe: **PSD Approval 83-01 Part II–Condition 5**
**The Permittee shall retain records of all emissions data and operating parameters and fuel use, as required by the terms of PSD Approval 83-01 for a period of five (5) years.**
..... Title V Permit Condition IV-1.4C(1)

Reference (26) **COMAR 26.11.03.06C.** Describe: **PSD Approval 83-01**
**The Permittee shall maintain records of the calculated pounds per hour and the tons per years for a** period of 5 years**.**.....Title V Permit Condition IV-1.4C(2)

Reference (27) **COMAR 26.11.03.06C.** Describe: **PSD Approval 83-01**
**The Permittee shall maintain a record of the results of the annual stack test for fluorides for a period of 5 years.**.....Title V Permit Condition IV-1.4C(3)

Reference (28) **COMAR 26.11.08.08A(2)**. Describe: **NSINA Approval 83-01**
**None – Particulate emissions limit has been subsumed under existing large MWC particulate limit in COMAR 26.11.08.08A(2).**..... Title V Permit Condition IV-1.4D

Reference (29) **COMAR 26.11.03.06.** Describe: **Visible Emissions**
**The Permittee shall maintain records of all Method 9 observations taken to demonstrate compliance with COMAR 26.11.08.04, on-site for a period of at least five (5) years.**
..... Title V Permit Condition IV-1.4E

**SECTION 3B. Testing/Monitoring/Recordkeeping/Reporting Requirements from Sections IV-1.2/1.3/1.4/1.5, respectively, of the Current Title V Permit**
**ATTACHMENT for all Applicable Federally Enforceable Requirements**



Methods used to demonstrate compliance: (continued)

*Reporting Requirements from Section IV-1.5 of the Current Title V Permit:*

Reference (30) **COMAR 26.11.08.08C(1).** Describe: **Existing Large MWC Emission Limits**
**A person who owns an existing MWC subject to this regulation shall report and maintain records in accordance with 40 CFR Sec. 60.59b of Subpart Eb, as applicable, except for the siting requirements under Sec. 60.59b(a), (b)(5), and (d)(11) of 40 CFR 60 Subpart Eb.**
.....Title V Permit Condition IV-1.5A(1)

Reference (31) **COMAR 26.11.08.08C(2).** Describe: **Existing Large MWC Emission Limits**
**Continuous emissions monitoring data reduction and data availability shall be as prescribed in COMAR 26.11.01.10. If there is any inconsistency between COMAR 26.11.01.10 and 40 CFR Part 60, the requirements of 40 CFR Part 60 govern.** .....Title V Permit Condition IV-1.5A(2)

Reference (32) **COMAR 26.11.01.10G(2).** Describe: **Existing Large MWC Emission Limits**
**The Permittee shall submit a quarterly CEM/COM and parameter monitoring data excess emission report to the Department not later than 30-days following each calendar quarter. At a minimum, the report shall include: (a) A listing of the time period, magnitude, and cause of all emissions that exceeded the applicable emission or parameter monitoring standard for the respective emission/parameter averaging time, (b) A listing of all excluded data and the reason for excluding the data, (c) A listing of all the 1-hour average emission concentrations, 1-hour percent reduction data, as applicable, and 1-hour parameter monitoring data for any day that there was either an exceedance of an emission or parameter standard or for any day that the Permittee excluded data. The listing is only required for the respective pollutant or parameter that there was an exceedance for or Permittee excluded data, (d) A listing of time periods (including invalid hourly averages or invalid 6 minute averages for COMs) and cause of all CEM/COM and parameter monitor downtimes, (e) A listing of installation (MWC units) downtime, (f) Daily calibration activities when results exceeded the daily calibration drift limits and the results of all audits performed during the quarter, and (g) A summary of the quarterly totals of excess emissions, installation downtimes, and monitor downtimes.**.....Title V Permit Condition IV-1.5A(3)

Reference (33) **40 CFR 60.59b(g).** Describe: **Existing Large MWC Emission Limits**
**A person who owns an existing MWC subject to this regulation shall submit to the Department** semi-annual reports that includes the information specified in §§(g)(1) through §§(g)(5), as applicable, by August 1st and February 1st for the respective reporting periods. .....Title V Permit Condition IV-1.5A(4)

Reference (34) **40 CFR 60.59b(h).** Describe: **Existing Large MWC Emission Limits**
**A person who owns an existing MWC subject to this regulation shall submit to the Department semi-annual reports that includes the information specified in §§(h)(1) through §§(h)(5), as applicable, for any recorded pollutant or parameter that does not comply with the pollutant or parameter limit specified under this subpart by August 1st and February 1st for the respective reporting periods.**
.....Title V Permit Condition IV-1.5A(5)

**SECTION 3B. Testing/Monitoring/Recordkeeping/Reporting Requirements from Sections IV-1.2/1.3/1.4/1.5, respectively, of the Current Title V Permit**
**ATTACHMENT for all Applicable Federally Enforceable Requirements**



Methods used to demonstrate compliance: (continued)

*Reporting Requirements from Section IV-1.5 of the Current Title V Permit: (Cont'd)*

Reference (35) **COMAR 26.11.08.09G(1)&(2)** Describe: **Incinerator Operator Training Records and Notification. Within 10 days after training is complete, the person who conducts an approved incinerator operator training course shall: (1) Notify the Department in writing, of the names, employee identification numbers, and employer of those incinerator operators who have successfully completed the training course; and (2) Provide a certificate to each incinerator operator who has satisfactorily completed the training course and has passed the required examination.** ..... Title V Permit Condition IV-1.5B

Reference (36) **COMAR 26.11.03.06C.** Describe: **PSD Approval 83-01 The Permittee shall submit the results of annual fluoride tests along with the other annual emission test results that satisfy COMAR 2611.08.08C(1).** ..... Title V Permit Condition IV-1.5C(1)

Reference (37) **COMAR 26.11.03.06C.** Describe: **PSD Approval 83-01 The Permittee shall submit a quarterly excess emission report to the Department not later than 30-days following each calendar quarter. At a minimum, the report shall include: (a) A listing of the time period, magnitude, and cause of all emissions that exceeded the applicable emission standard for the respective emission averaging time along with causes and corrective actions, and (b) A listing of all of the 12-month rolling emissions for $SO_2$, CO, NOx for the quarter.** .....Title V Permit Condition IV-1.5C(2)

Reference (38) **PSD Approval 83-01.** Describe: **PSD Approval 83-01 Part II–Condition 6 If, for any reason, the Permittee does not comply or will not be able to comply with the emission limitations or other conditions specified in this Approval, the Company shall provide the Department with the following information as soon as possible, but no later than five (5) days after such conditions become known to the Company: (a) Description of non-compliance; (b) Cause of non-compliance; (c) Anticipated time the non-compliance is expected to continue or, if corrected, the actual duration of non-compliance; (d) Steps taken to minimize or eliminate non-compliance; and (e) Steps taken to prevent recurrence of the non-compliance.** .....Title V Permit Condition IV-1.5C(3)

Reference (39) **PSD Approval 83-01.** Describe: **PSD Approval 83-01 Part II–Condition 6 Submittal of this report does not constitute a waiver of the emission limitations or other conditions of this Approval nor does it in anyway restrict the Department's authority to enforce the conditions. Note: This report applies to noncompliance with PSD Approval 83-01 emission limits and other PSD conditions only.** .....Title V Permit Condition IV-1.5C(4)

Reference (40) **PSD Approval 83-01.** Describe: **PSD Approval 83-01 Part II–Condition 9 In the event of any change in control of ownership, the Permittee shall notify the succeeding owner of the existence of this Approval by letter and send a copy of that letter to the Department.** .....Title V Permit Condition IV-1.5C(5)

**SECTION 3B. Testing/Monitoring/Recordkeeping/Reporting Requirements from Sections IV-1.2/1.3/1.4/1.5, respectively, of the Current Title V Permit**
**ATTACHMENT for all Applicable Federally Enforceable Requirements**



Methods used to demonstrate compliance: (continued)

Reference (41) **COMAR 26.11.08.08A(2).** Describe: **NSINA Approval 83-01**

**None – Particulate emissions limit has been subsumed under existing large MWC particulate limit in COMAR 26.11.08.08A(2).** ..... Title V Permit Condition IV-1.5D

Reference (42) **COMAR 26.11.01.07 & 26.11.03.06C(7).** Describe: **Visible Emissions**

**Report deviations in accordance with Section III Plant Wide Conditions Item 4 Report of Excess Emissions and Deviations.** ..... Title V Permit Condition IV-1.5E

**SECTION 3C. OBSOLETE, EXTRANEOUS, OR INSIGNIFICANT PERMIT CONDITIONS**

**NOT APPLICABLE**

**List permit to construct conditions which should be considered to be obsolete, extraneous, or environmentally insignificant.**

**Emissions Unit No.: _____ Permit to Construct No.: _____**

| Emissions Point No. | Date Permit Issued | Condition No. | Brief Description of Condition and Reason for Exclusion |
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**SECTION 3D. ALTERNATE OPERATING SCENARIOS**

**NOT APPLICABLE**

**Emissions Unit No.:**_____

Briefly describe any alternate operating scenarios. Assign a number to each scenario for identification purposes.

**SECTION 3E. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS FOR AN ALTERNATE OPERATING SCENARIO**

**NOT APPLICABLE**

**Scenario No.: _____**

**Emissions Unit No.: _____ General Reference: _____**

Briefly describe any applicable Emissions Standard/Limits/Operational Limitations:

_____

_____

_____

_____

_____

**Compliance Demonstration**

Methods used to demonstrate compliance:

Monitoring: Reference _____ Describe: _____

_____

_____

_____

Testing: Reference _____ Describe: _____

_____

_____

_____

Record Keeping: Reference _____ Describe: _____

_____

_____

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Reporting: Reference _____ Describe: _____

_____

_____

_____

**Frequency of submittal of the compliance demonstration: _____**

## SECTION 4. CONTROL EQUIPMENT

| 1. Associated Emissions Units No. : **EU1-EU3** | 2. Emissions Point No.: **EP1** |
|---|---|

| 3. Type and Description of Control Equipment: |
|---|
| **Each boiler has a urea injection Selective Non-Catalytic Reduction (SNCR) system to control NOx emissions.** |
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| 4. Pollutants Controlled: | Control Efficiency: |
|---|---|
| **Oxides of Nitrogen** | **Up to 40% depending on uncontrolled NOx emissions** |
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| 5. Capture Efficiency: |
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## SECTION 4. CONTROL EQUIPMENT

| 1. Associated Emissions Units No. : **EU1-EU3** | 2. Emissions Point No.: **EP1** |
|---|---|

| 3. Type and Description of Control Equipment: |
|---|
| **Each boiler has a "slaked lime" Spray Dry Absorber (SDA) system to control acid gas emissions.** |
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| 4. Pollutants Controlled: | Control Efficiency: |
|---|---|
| **Sulfur Dioxide** | **Up to 75% or more depending on inlet SO2 emissions** |
| **Hydrogen Chloride** | **Up to 95% or more depending on inlet HCl emissions** |
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| 5. Capture Efficiency: |
|---|
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## SECTION 4. CONTROL EQUIPMENT

| 1. Associated Emissions Units No. : **EU1-EU3** | 2. Emissions Point No.: **EP1** |
|---|---|

| 3. Type and Description of Control Equipment: |
|---|
| **Each boiler has an Activated Carbon Injection system for mercury removal.** |
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| 4. Pollutants Controlled: | Control Efficiency: |
|---|---|
| **Mercury** | **Up to 85% or more depending on uncontrolled mercury emissions** |
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| 5. Capture Efficiency: |
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## SECTION 4. CONTROL EQUIPMENT

| 1. Associated Emissions Units No. : **EU1-EU3** | 2. Emissions Point No.: **EP1** |
|---|---|

| 3. Type and Description of Control Equipment: |
|---|
| **Each boiler has a pulse jet fabric filter to remove particulate matter and metals and to capture** |
| **carryover carbon and lime from the activated carbon injection and spray dry absorber control systems.** |
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| 4. Pollutants Controlled: | Control Efficiency: |
|---|---|
| **Particulate Matter** | **Up to 99% or more depending on inlet particulate loading** |
| **MWC Metals including Antimony, Arsenic, Cadmium, Chromium, Copper, Lead, Manganese, and Nickel** | **Up to 99% or more depending on inlet particulate loading** |
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| 5. Capture Efficiency: |
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## SECTION 5. SUMMARY SHEET OF POTENTIAL EMISSIONS

**List all applicable pollutants in tons per year (tpy) pertaining to this facility. The Emissions Unit No. should be consistent with numbers used in Section 3. Attach a copy of all calculations.**

**NOT APPLICABLE**

| Pollutant | | | | | |
|---|---|---|---|---|---|
| CAS Number | | | | | |
| Emissions Unit # | | | | | |
| Emissions Unit # | | | | | |
| Emissions Unit # | | | | | |
| Emissions Unit # | | | | | |
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| Emissions Unit # | | | | | |
| **Fugitive Emissions** | | | | | |
| Total | | | | | |

**Not Applicable because source neither wants to claim an exemption based on an emissions cutoff level (e.g., MACT standard) nor needs to resolve a dispute over whether a particular requirement is applicable or whether the source is major for a particular pollutant (the facility is currently major based on controlled potential emissions for NOx, CO, SO2, PM and HCl).**

## SECTION 6. EXPLANATION OF PROPOSED EXEMPTIONS FROM OTHERWISE APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

**Describe and cite the applicable requirements to be exempted. Complete this Section only if the facility is claiming exemptions from or the non-applicability of any federally enforceable requirements.**

**NOT APPLICABLE**

1. Applicable Requirement:

2. Brief Description:

_____

_____

_____

3. Reasons for Proposed Exemption or Justification of Non-applicability:

_____

_____

_____

_____

_____

## SECTION 7. COMPLIANCE SCHEDULE FOR NONCOMPLYING EMISSIONS UNITS

**NOT APPLICABLE**

| 1. Emissions Unit # | Anticipated Compliance Date |
|---|---|
| | |
| Applicable Federally Enforceable Requirement being Violated: | |

2. Description of Plan to Achieve Compliance:

_____

_____

_____

_____

_____

_____

Certified Progress Reports for sources in noncompliance shall be submitted at least quarterly to the Department.

# PART 70 PERMIT APPLICATION FOR RENEWAL OF WHEELABRATOR BALTIMORE, L.P. PERMIT NO. 24-510-01886

APPLICATION FORMS FOR STATE-ONLY REQUIREMENTS

**October 2023**

## CITATION TO AND DESCRIPTION OF APPLICABLE STATE-ONLY ENFORCEABLE REQUIREMENTS

**Registration No.: 24-2-0255, 24-2-0256, 24-2-0257**

**Emissions Unit No.: E1 – E3** **General Reference: NSINA Approval 83-01–Condition(5) –Title V Condition VI.A**

Briefly describe the requirement and the emissions limit (if applicable):

**Control of Nuisance Emissions–The refuse holding pit shall be maintained under negative pressure and the exhausted air shall be combined with the primary combustion air to minimize odors.**

Methods used to demonstrate compliance:

**N/A**

## CITATION TO AND DESCRIPTION OF APPLICABLE STATE-ONLY ENFORCEABLE REQUIREMENTS

**Registration No.:** _____

**Emissions Unit No.:** **Premises Wide** **General Reference:** **COMAR 26.11.15.05 –Title V Condition VI.B**

Briefly describe the requirement and the emissions limit (if applicable):

**Control of Air Toxics–COMAR 26.11.15.05–New or Reconstructed Installations. A person may not construct, reconstruct, operate, or cause to be constructed, reconstructed, or operated, any new installation or source that will discharge a toxic air pollutant to the atmosphere without installing and operating T-BACT.**

Methods used to demonstrate compliance:

**N/A**

## CITATION TO AND DESCRIPTION OF APPLICABLE STATE-ONLY ENFORCEABLE REQUIREMENTS

**Registration No.:** _____

**Emissions Unit No.:** **Premises Wide** **General Reference:** **COMAR 26.11.15.06 –Title V Condition VI.C**

Briefly describe the requirement and the emissions limit (if applicable):

**Control of Air Toxics Cont'd–COMAR 26.11.15.06–Except as provided in §A(2) of this regulation, a person may not construct, modify, or operate, or cause to be constructed, modified, or operated, any new installation or source without first demonstrating to the satisfaction of the Department using procedures established in this chapter that total allowable emissions from the premises of each toxic air pollutant discharged by the new installation or source will not unreasonably endanger human health.**

Methods used to demonstrate compliance:

**N/A**

**CITATION TO AND DESCRIPTION OF APPLICABLE STATE-ONLY ENFORCEABLE REQUIREMENTS**

**Registration No.: 24-2-0255, 24-2-0256, 24-2-0257**

**Emissions Unit No.: E1 – E3** **General Reference: State P/O–Part B Conditions –Title V Condition VI.D**

Briefly describe the requirement and the emissions limit (if applicable):

**Restrictions on materials in the waste stream–(1) Municipal Solid Waste may include certain solid waste generated from industrial, institutional, and commercial facilities such as trimmings, off-specification products, and similar materials. Hazardous wastes, and infectious medical wastes must be excluded; (2) Infectious waste may not be stored, burned, or disposed of at this facility; and (3) Off-spec and outdated pharmaceuticals may be burned at the facility provided that the burning does not cause a violation of any standard or operating requirement.**

Methods used to demonstrate compliance:

**The Permittee shall monitor the material in its waste stream in accordance with Department approved procedures to comply with the (above) waste restrictions.**

**CITATION TO AND DESCRIPTION OF APPLICABLE STATE-ONLY ENFORCEABLE REQUIREMENTS**

**Registration No.: 24-2-0255, 24-2-0256, 24-2-0257**

**Emissions Unit No.: E1 – E3** **General Reference: State P/O–Part C Conditions**

Briefly describe the requirement and the emissions limit (if applicable):

**The Permittee shall not exceed the facility-wide emissions limitations specified below: Nitrogen Oxides (NOx) – 105 parts per million dry volume (ppmdv) at 7 percent oxygen on dry basis over a 30-day rolling average; sulfur dioxide (SO2) – 18 ppmdv at 7 percent oxygen on dry basis over a 24-hour block geometric mean; dioxins and furans – 15 nanograms per dry standard cubic meter (ng/dscm) at 7 percent oxygen on dry bases; mercury – 15 micrograms per dry standard cubic meter (µg/dscm) at 7 percent oxygen on dry bsis; cadmium – 25 µg/dscm at 7 percent oxygen on dry basis; and lead – 250 µg/dscm at 7 percent oxygen on dry basis. These limits become effective on December 31, 2023.**

Methods used to demonstrate compliance:

**Compliance with the SO2 and NOx emissions limitations shall be determined by continuous emission monitors (CEMS) already installed and operated in accordance with the requirements of the Title V permit. Compliance with the dioxin and furans, mercury, cadmium, and lead limitations shall be determined in accordance with the applicable sampling and analytical methods in the Title V permit.**

**CITATION TO AND DESCRIPTION OF APPLICABLE STATE-ONLY ENFORCEABLE REQUIREMENTS**

**Registration No.:**

**Emissions Unit No.: E1 – E3** **General Reference: COMAR 26.11.08.10A**

Briefly describe the requirement and the emissions limit (if applicable):

**The owners and operators of a Large MWC to minimize NOx emissions by operating and optimizing the use of all installed pollution control technology and combustion controls consistent with the technological limitations, manufacturers' specifications, good engineering and maintenance practices, and good air pollution control practices for minimizing emissions (as defined in 40 CFR Section 60.11(d)) for such equipment and the unit at all times the unit is in operation, including periods of startup and shutdown**

Methods used to demonstrate compliance:

**N/A**

**CITATION TO AND DESCRIPTION OF APPLICABLE STATE-ONLY ENFORCEABLE REQUIREMENTS**

**Registration No.:**

**Emissions Unit No.: E1 – E3** **General Reference: COMAR 26.11.08.10B, C, D(2), F**

Briefly describe the requirement and the emissions limit (if applicable):

**As of May 1, 2019, the owner or operator of a Large MWC shall meet the following applicable NOx emission rates, except for periods of startup and shutdown: 150 ppmv 24-hour block average.**

**As of May 1, 2020, the owner or operator of a Large MWC shall meet the requirements of section B of this regulation and the following applicable NOx emission rates, except for periods of startup and shutdown: 145 ppmv 30-day rolling average.**

**As of May 1, 2019, a facility-wide NOx emission limit of 252 lbs/hr timed average mass loading over a 24-hour period shall apply during periods of startup and shutdown for Wheelabrator Baltimore Inc.**

**The owner or operator of a Large MWC shall continuously monitor NOx emission with a continuous emission monitoring system in accordance with COMAR 26.11.01.11.**

Methods used to demonstrate compliance:

**Compliance with the NOx emissions limitations shall be determined by continuous emission monitors (CEMS) already installed and operated in accordance with the requirements of the Title V permit.**

**CITATION TO AND DESCRIPTION OF APPLICABLE STATE-ONLY ENFORCEABLE REQUIREMENTS**

**Registration No.:**

**Emissions Unit No.: E1 – E3** **General Reference: COMAR 26.11.08.10H and I**

Briefly describe the requirement and the emissions limit (if applicable):

**Beginning July 1, 2019, the owner or operator of a Large MWC shall submit a quarterly report to the Department containing: Data, information, and calculations which demonstrate compliance with the NOx 24-hour block average emission rate as required in section B of this regulation; data, information, and calculations, including NOx CEMs data and stack flow data, which demonstrate compliance with the start up and shutdown mass NOx emission limits as required in section D of this regulation; flagging periods of startup and shutdown and exceedances of emission rates; NOx CEMs data and total urea flow rate to the boiler averaged over a 1-hour period, in a Microsoft Excel format; documented actions taken during periods of startup and shutdown in signed, contemporaneous operating logs; and data, information, and calculations which demonstrate compliance with the NOx 30-day rolling average emission rate as required in COMAR 26.11.08.10C of this regulation.**

Methods used to demonstrate compliance:

**Compliance with the quarterly report submittals will use data from the NOx CEMs and other means of recordkeeping at the site.**

## CITATION TO AND DESCRIPTION OF APPLICABLE STATE-ONLY ENFORCEABLE REQUIREMENTS

**Registration No.:**

**Emissions Unit No.: E1 – E3** **General Reference: COMAR 26.11.08.10J**

Briefly describe the requirement and the emissions limit (if applicable):

**No less than 2 weeks advance notice and the opportunity to observe activities shall be provided to the Department prior to any optimization procedure, including installation or operation of NOx emission control technology, for the express purpose of complying with the requirements of COMAR 26.11.08.10E(1).**

Methods used to demonstrate compliance:

**N/A**

**CITATION TO AND DESCRIPTION OF APPLICABLE STATE-ONLY ENFORCEABLE REQUIREMENTS**

**Registration No.:**

**Emissions Unit No.: E1 – E3** **General Reference: COMAR 26.11.08.10K and M**

Briefly describe the requirement and the emissions limit (if applicable):

**Compliance with the NOx emission standards in sections B, C, and D of this regulation shall be demonstrated with a CEMS.**

**Compliance with the NOx mass loading emission limitation for periods of startup and shutdown in COMAR 26.11.08.10D(2) shall be demonstrated by calculating the 24-hour average of all hourly average NOx emission concentrations from CEMS systems.**

**The calculations in COMAR 26.11.08.10M(1) shall utilize the applicable Prevention of Significant Deterioration calculation methodology, for all the hours during the 3-hour startup or shutdown period and the remaining 21 hours of the 24-hour period.**

Methods used to demonstrate compliance:

**Compliance with the NOx emissions limitations shall be determined by continuous emission monitors (CEMS) already installed and operated in accordance with the requirements of the Title V permit.**

# PART 70 PERMIT APPLICATION FOR RENEWAL OF WHEELABRATOR BALTIMORE, L.P. PERMIT NO. 24-510-01886

APPLICATION COMPLETENESS CHECKLIST

**October 2023**

## VI. Application Completeness Checklist

The purpose of this part is to list the information required to achieve a Part 70 application shield.

### Cover Page

(**X**) Name and address of owner or operator, including telephone number.

(**X**) Name and address of facility, including the plant manager's name and telephone number.

(**X**) A 24-hour emergency telephone number for air pollution matters.

### Section 1 CERTIFICATION STATEMENTS

(**X**) The certification statement completed and signed by a responsible official.

### Section 2 FACILITY DESCRIPTION SUMMARY

(**X**) A brief description of each of the source's process(es), including all applicable SIC codes and end products.

(**X**) Flow diagrams indicating all emissions units, emission points, and control devices.

(**X**) A plot plan of the entire facility.

(**X**) Emission Certification Report.

(**X**) General Emissions Information.

### Section 3 EMISSIONS UNIT DESCRIPTIONS –

This section must be completed for each emissions unit.

### Part A

(**X**) Emissions unit number.

(**X**) Detailed description of unit, including all emission points.

(N/A) Federally enforceable limit(s) on the operating schedule.

(**X**) Fuel consumption information for <u>any</u> emissions unit that consumes fuel including the type of fuel, percent sulfur, and annual usage of fuel.

**Part B**

(**X**) A citation and description of each federally enforceable requirement, including all emission standards, for each emissions unit.

(**X**) A statement of compliance demonstration techniques for each requirement, including a description of monitoring, record keeping, reporting requirements, and test methods.

(**X**) The frequency of submittal of the compliance demonstration during the permit term.

**Part C – Separate pages provided for Current Title V Permit (24-510-01886), PSD Approval No. 83-01, and NSINA Approval No. 83-01**

(**X**) Emissions unit number.

(**X**) Permit to construct number.

(**X**) Emissions point number(s).

(**X**) Date(s) the permit to construct was issued.

(**X**) Condition number(s) as indicated on the permit to construct.

(**X**) Description of the permit condition(s) and the reason(s) why they are believed to be obsolete, extraneous, or insignificant.

**Part D** **<u>NOT APPLICABLE</u>**

(N/A) Description of all alternate operating scenarios that apply to an emissions unit.

(N/A) Number assigned to each scenario.

(N/A) Emissions unit number.

(N/A) Description of the operating parameters for the emissions unit and other information which describes the how the operation of the unit will change under the different scenario.

**Part E** **NOT APPLICABLE**

(N/A) A citation and description of each federally enforceable requirement triggered by an operating scenario, including all emission standards, for each emissions unit.

(N/A) As an attachment, the date and results of the most recent compliance demonstration for each emission standard and/or emissions certification report with relevant supporting documentation.

(N/A) A statement of compliance demonstration techniques for each requirement, including a description of monitoring, record keeping, reporting requirements, and test methods.

(N/A) The frequency of submittal of the compliance demonstration during the permit term.

**Section 4 CONTROL EQUIPMENT**

**(X)** The type of each piece of air pollution control equipment

**(X)** The capture and control efficiencies of the control equipment.

**Section 5 SUMMARY SHEET OF POTENTIAL EMISSIONS**
**NOT APPLICABLE**

(N/A) Quantity of potential emissions for criteria pollutants and HAPs emitted in tons per year for each emissions unit.

(N/A) Fugitive emission estimations for the entire facility for criteria pollutants and HAPs emitted in tons per year.

(N/A) Basis for all emission calculations.

**Section 6 AN EXPLANATION OF PROPOSED EXEMPTIONS FROM OTHERWISE APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS** **NOT APPLICABLE**

(N/A) An explanation of the proposed exemption.

**Section 7 COMPLIANCE SCHEDULE FOR NONCOMPLYING EMISSIONS UNITS** **NOT APPLICABLE**

(N/A) Identification of emissions unit(s) not in compliance, including the requirement being violated and the effective compliance date.

(N/A) Detailed description of methods to be used to achieve compliance.

(N/A) A schedule of remedial measures, including an enforceable sequence of actions with milestones.

## Attachment

(**X**) Checklist of Insignificant Activities

(**X**) CAM Plan (If Applicable)

# PART 70 PERMIT APPLICATION FOR RENEWAL OF WHEELABRATOR BALTIMORE, L.P. PERMIT NO. 24-510-01886

COMPLIANCE CERTIFICATION AND
EMISSION CERTIFICATION REPORTS

**October 2023**

WASTE INNOVATIONS
90 Arboretum Drive, Suite 300, Portsmouth, NH, 03801
www.win-waste.com

March 30, 2023

Maryland Department of the Environment
Air and Radiation Management Administration
1800 Washington Boulevard, Suite 715
Baltimore, Maryland 21230-1720
Attention: Daniel Davis, Compliance Program

Dear Daniel:

Enclosed are the Wheelabrator Baltimore L.P. 2022 Annual Title V Permit No. 24-510-01886 Compliance Certification and Emission Certification Reports. Any questions regarding this report should be forwarded to David Ruppert, Environmental Compliance Specialist, at druppert@win-waste.com or 410-234-0808 x219.

Specifically, this report contains:

1. EPA Form A –Comp – Annual Compliance Certification
2. Plant Wide Conditions Certifications
3. MDE Emissions Certification Report
   a. Form 1 - General Facility Information Report
   b. Form 2 – Criteria Air Pollutants Emission Certification Reports
   c. Form 3 – Emission Certification Report Particulate Matter
   d. Form 4 – Toxic Air Pollutants Emission Certification Reports
   e. Form 5 – Billable Toxic Air Pollutants Emission Certification Reports
   f. Form 6 – Greenhouse Gas Air Pollutants Emissions Certification Reports
4. Annual Emission Calculation Sheet and Information

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware of the significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Please advise if additional information is required.

Sincerely,

Jim Robertson
Plant Manager

cc: Associate Director
Office of Enforcement and Permit Review (3AP10)
U.S. EPA Region III
1650 Arch Street
Philadelphia, PA 19103-2029 (with)

EPA United States Environmental Protection Agency

OMB No. 2060-0336, Expires 11/30/2022

Federal Operating Permit Program (40 CFR Part 71)
**CERTIFICATION OF TRUTH, ACCURACY, AND COMPLETENESS (CTAC)**

This form must be completed, signed by the "Responsible Official" designated for the facility or emission unit, and sent with each submission of documents (i.e., application forms, updates to applications, reports, or any information required by a part 71 permit).

**A. Responsible Official**

Name: (Last) Robertson (First) Jim (MI) ____

Title Plant Manager

Street or P.O. Box 1801 Annapolis Road

City Baltimore State MD ZIP 21230

Telephone (410) 234 -0808 Ext. 212 Facsimile (410) 685-8571

**B. Certification of Truth, Accuracy and Completeness** (to be signed by the responsible official)

I certify under penalty of law, based on information and belief formed after reasonable inquiry, the statements and information contained in these documents are true, accurate and complete.

Name (signed)

Name (typed) Jim Robertson Date: 3 / 30 / 2023

United States Environmental Protection Agency

OMB No. 2060-0336, Expires 11/30/2022

Federal Operating Permit Program (40 CFR Part 71)

**ANNUAL COMPLIANCE CERTIFICATION (A-COMP)**

## A. GENERAL INFORMATION

Permit No. 24-510-01886

Reporting Period: Beg. 01 / 01 / 2022 End. 12 / 31 / 2022

Source / Company Name Wheelabrator Baltimore, L.P.

Mailing Address: Street or P.O. Box 1801 Annapolis Road

City Baltimore State MD ZIP 21230 -

Contact person David Ruppert Title Environmental Specialist

Telephone ( 410 ) 234 - 0808 Ext. 219

Continued on next page

A-COMP

## B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1=24-2-0255; EU-2=24-2-0256; EU-3=24-2-0257

Permit Term (Describe requirements and cross-reference)

IV-1.1 Applicable Standards/Limits:

Condition A. Existing Large MWC Emission Limits

(a) The Permittee shall comply with the existing Large MWC emissions limits and operational standards found in Table 1V-1A. [COMAR 26.11.08.08A(1)]

(b) The standards in COMAR 26.11.08.08A(2) apply at all times except during periods of startup, shutdown, or malfunction as provided in 40 CFR §60.58b(a). [COMAR 26.11.08.08A(3)]

Compliance Methods for the Above (Description and Citation):

| | |
|---|---|
| Testing Requirements: | Annual stack testing in accordance with applicable requirements. The results of the tests indicate compliance. |
| Monitoring Requirements: | Continuous monitors for steam flow, ESP Inlet temperature, CO, SO2, NOx, opacity and carbon injection are operated and maintained according to applicable requirements. |
| Record Keeping Requirements: | In accordance with applicable requirements. |
| Reporting Requirements: | Submittal of Subpart Eb semiannual and annual reports in accordance with applicable requirements. |

Status (Check one): _____Intermittent Compliance __X_ Continuous Compliance

Emission Unit ID(s): EU-1=24-2-0255; EU-2=24-2-0256; EU-3=24-2-0257

Permit Term (Describe requirements and cross-reference)

IV-1.1 Applicable Standards/Limits:

Condition B. Incinerator Operator Training COMAR 26.11.08.09

1. COMAR 26.11.08.09B Certification Requirement - A person may not operate or allow an incinerator to be operated unless the owner certifies to the Department on a form approved by the Department that the incinerator operator:

(a) Has completed an initial training course approved by the Department which meets the requirements of COMAR 26.11.08.09D; and

(b) Annually, after initial certification, completes a review course approved by the Department. [COMAR 26.11.08.09B(1) & (2)]

Compliance Methods for the Above (Description and Citation):

| | |
|---|---|
| Testing Requirements: | None required |
| Monitoring Requirements: | None required |
| Record Keeping Requirements: | Maintain records on site documenting that initial and annual training has been completed |
| Reporting Requirements: | Records are submitted annually to the Department for those employees who complete the initial training course or the annual review course in accordance with applicable requirements. |

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

A-COMP

## B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1=24-2-0255; EU-2=24-2-0256; EU-3=24-2-0257

Permit Term (Describe requirements and cross-reference)

IV-1.1 Applicable Standards/Limits:

Condition B. Incinerator Operator Training

2. COMAR 26.11.08.09D(1) For any incinerator operator who operates a municipal waste combustor (MWC), the training course shall address the following subjects in detail:

(a) Overall operation, maintenance, and performance of the facility;
(b) Start-up and shut-down of the facility;
(c) Applicable federal, State, and local environmental regulations, and sanctions for violations;
(d) Policies and procedures for proper and safe plant operation;
(e) Maintaining records of facility operations;
(f) Actions to correct upsets or emergencies;
(g) Control room operations;
(h) Ash handling and disposal;
(i) Combustion theory;
(j) Air pollution control technology;
(k) Continuous emission monitors and their calibration, and quality assurance requirements. [COMAR 26.11.08.09D(1)]

Compliance Methods for the Above (Description and Citation):

| | |
|---|---|
| Testing Requirements: | None required |
| Monitoring Requirements: | None required |
| Record Keeping Requirements: | All manuals are maintained on site. |
| Reporting Requirements: | None required |

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s): EU-1=24-2-0255; EU-2=24-2-0256; EU-3=24-2-0257

Permit Term (Describe requirements and cross-reference)

IV-1.1 Applicable Standards/Limits:

Condition B. Incinerator Operator Training

3. For the operator of any municipal waste combustor (MWC), completing a training course means:

(a) Completing an initial training course approved by the Department of at least 5 days (40 hours) duration; and
(b) Passing a written test approved by the Department. [COMAR 26.11.08.09D(2)]

Compliance Methods for the Above (Description and Citation):

| | |
|---|---|
| Testing Requirements: | None required. |
| Monitoring Requirements: | None required |
| Record Keeping Requirements: | Employee training records maintained for five years. |
| Reporting Requirements: | Records are submitted annually to the Department for those employees who complete the initial training course or the annual review course in accordance with applicable requirements. |

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

A-COMP

## B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1=24-2-0255; EU-2=24-2-0256; EU-3=24-2-0257

Permit Term (Describe requirements and cross-reference)

IV-1.1 Applicable Standards/Limits:

Condition B. Incinerator Operator Training

4. The certified operator shall, after initial training, complete and pass an annual review course approved by the Department of at least 1-day (8 hours) duration. [COMAR 26.11.08.09D(4)]

Compliance Methods for the Above (Description and Citation):

| | |
|---|---|
| Testing Requirements: | None required. |
| Monitoring Requirements: | None required |
| Record Keeping Requirements: | Maintain employee training records for five years. |
| Reporting Requirements: | Records are submitted annually to the Department for those employees who complete the initial training course or the annual review course in accordance with applicable requirements. |

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s): EU-1=24-2-0255; EU-2=24-2-0256; EU-3=24-2-0257

Permit Term (Describe requirements and cross-reference)

IV-1.1 Applicable Standards/Limits:

Condition B. Incinerator Operator Training

5. Operations and Maintenance Manual.
   (a) The owner or operator of a large MWC shall develop and maintain on-site, an operations and maintenance manual that contains, at a minimum, all of the course content requirements in COMAR 26.11.08.09D(1) and in 40 CFR §60.54b(e).
   (b) The operations and maintenance manual shall be updated annually. [COMAR 26.11.08.09H(1)&(2)]

Compliance Methods for the Above (Description and Citation):

| | |
|---|---|
| Testing Requirements: | None required. |
| Monitoring Requirements: | None required. |
| Record Keeping Requirements: | The operations and maintenance manual is maintained on site and is updated annually. |
| Reporting Requirements: | None required. |

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

**A-COMP**

## B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1=24-2-0255; EU-2=24-2-0256; EU-3=24-2-0257

Permit Term (Describe requirements and cross-reference)

IV-1.1 Applicable Standards/Limits:

Condition C. PSD Approval 83-01 (Feb. 21, 1986)

(1) The Permittee shall not exceed the facility-wide (MWC Units #1, 2 & 3) emissions limitations specified below [Authority PSD Approval 83-01, Part I- Condition (1)]:

| | |
|---|---|
| $SO_2$: | 375 lbs./hr. and 1, 478 tons/year |
| CO: | 121 lbs./hr. and 477 tons/year |
| $NO_2$ | 298 lbs./hr. and 1, 176 tons/year |
| Fluorides: | 12 lbs./hr. and 47 tons/year |

(a) Compliance with the facility wide lbs./hr PSD emission limit shall be determined as follows:

- SO2, CO and NOx: 8 hour block average. A valid facility eight hour block average is based on a minimum of 6 hours of total facility hourly data.
- Fluorides: the average of three test runs using EPA Reference Method 13B, 26A, or equivalent
- All emissions associated with startup, shutdown, and malfunction episodes are included in the pounds per hour standard

[COMAR 26.11.02.02H]

(b) The tons per year PSD emission limits are a 12-month composite (rolling monthly) and includes all emissions associated with startup, shutdown, and malfunction episodes.

[COMAR 26.11.02.02H]

Compliance Methods for the Above (Description and Citation):

| | |
|---|---|
| Testing Requirements: | Annual stack testing for fluorides in accordance with Section IV Testing Requirements Condition 2. |
| Monitoring Requirements: | Continuous monitors for CO, SO2 and NOx, are operated and maintained according to applicable requirements. Compliance with total facility lb/hour and ton / year permit emission limits for these pollutants have been calculated since November 7, 2011 (when the modified Title V permit was issued with this requirement) using CEM data and the methodology approved by MDE. |
| Record Keeping Requirements: | All records will be retained for five years. |
| Reporting Requirements: | Submit quarterly, semiannual and annual reports. |

Status (Check one): __ Intermittent Compliance _X__ Continuous Compliance

A-COMP

## B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1=24-2-0255; EU-2=24-2-0256; EU-3=24-2-0257

Permit Term (Describe requirements and cross-reference)

IV-1.1 Applicable Standards/Limits:

Condition C. PSD Approval 83-01 (Feb. 21, 1986)

2. The Permittee shall develop and submit to the Department for approval, procedures to ensure that only acceptable wastes as defined in Appendix A of the PSD application are incinerated.
[PSD Approval 83-01 Part I-Condition (4)]

Compliance Methods for the Above (Description and Citation):

| | |
|---|---|
| Testing Requirements: | None required. |
| Monitoring Requirements: | None required. |
| Record Keeping Requirements: | Records maintained for 5 years in accordance with applicable requirements. Refuse inspection procedure has been submitted and approved by the Department and is maintained onsite |
| Reporting Requirements: | None. |

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s): EU-1=24-2-0255; EU-2=24-2-0256; EU-3=24-2-0257

Permit Term (Describe requirements and cross-reference)

IV-1.1 Applicable Standards/Limits:

Condition C. PSD Approval 83-01 (Feb. 21, 1986)

3. The start-up fuel for the incinerator shall be natural gas. The incinerator shall not exceed a fuel consumption rate of $2.7 \times 10^7$ ft.$^3$ of natural gas in any one-year period. [PSD Approval 83-01 Part I-Condition (5)]

Compliance Methods for the Above (Description and Citation):

| | |
|---|---|
| Testing Requirements: | None required. |
| Monitoring Requirements: | None required. |
| Record Keeping Requirements: | Natural gas usage was less than $2.7 \times 10^7$ ft$^3$. Usage records maintained for 5 years in accordance with permit condition. |
| Reporting Requirements: | None required. |

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

A-COMP

## B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1=24-2-0255; EU-2=24-2-0256; EU-3=24-2-0257

Permit Term (Describe requirements and cross-reference)

IV-1.1 Applicable Standards/Limits:

Condition D. NSINA Approval 83-01 (Feb. 21, 1986)

Each furnace shall be equipped with electrostatic precipitators that shall be operated such that the particulate grain loading at the outlet ends of the ESP complies with the 0.017 gr/dscf particulate matter emission standard for large MWCs. [NSINA Approval 83-01 Condition (3)]

Note: compliance with the existing Large MWC particulate emission limit of 27 mg/dscm (0.012 gr/dscf) and testing, recordkeeping and monitoring requirements under COMAR 26.11.08.08A(2) assures compliance with the NSINA limit.

Compliance Methods for the Above (Description and Citation):

| | |
|---|---|
| Testing Requirements: | Annual stack testing in accordance with applicable requirements. The results of the tests indicate compliance. |
| Monitoring Requirements: | None required |
| Record Keeping Requirements: | All records will be retained for five years in accordance with applicable requirements. |
| Reporting Requirements: | Report of the annual stack test results has been submitted to the department as required. |

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s): EU-1=24-2-0255; EU-2=24-2-0256; EU-3=24-2-0257

Permit Term (Describe requirements and cross-reference)

IV-1.1 Applicable Standards/Limits:

Condition E. Visible Emissions

No emissions, other than water in an uncombined form, visible to human observers. The no visible emission requirement does not apply to emissions during start-up, or adjustments, or occasional cleaning of control equipment, if: (1) the visible emissions are not greater than 40 % opacity; and (2) the visible emissions do not occur for more than 6 consecutive minutes in any 60 minute period. [COMAR 26.11.08.04B&C]

Compliance Methods for the Above (Description and Citation):

| | |
|---|---|
| Testing Requirements: | None required. |
| Monitoring Requirements: | Conduct Monthly Method 9 or Method 22 like observations in accordance with Section IV, Monitoring Requirements Condition 9. |
| Record Keeping Requirements: | All records are retained for five years in accordance with applicable requirements. |
| Reporting Requirements: | None |

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

**A-COMP**

## B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1=24-2-0255; EU-2=24-2-0256; EU-3=24-2-0257

Permit Term (Describe requirements and cross-reference)

IV-1.2 Testing Requirements:

The Permittee shall comply with the testing requirements as follows:

A. Existing Large MWC Emission Limits - Perform testing requirements for the emissions and operational parameters in accordance with the test methods and specified frequencies referenced in Table IV-1A for existing large MWCs no less than 9 months and no more than 15 months following the previous test [COMAR 26.11.08.08A(2)]

B. Incinerator Operator Training - None

C. PSD Approval 83-01 - Perform annual testing for fluorides no less than 9 months & no more than 15 months following the previous test using EPA Reference Method 13B or 26A or equivalent. Testing may be combined with existing large MWC annual HCl testing [COMAR 26.11.03.06C(3)]

D. NSINA Approval 83-01 – The Permittee shall perform annual testing for particulate emissions in accordance with the standards for existing large MWCs as provided in COMAR 26.11.08.08A(2) [COMAR 26.11.03.06C(3)].

Compliance Methods for the Above (Description and Citation):

| | |
|---|---|
| Testing Requirements | As listed in permit conditions |
| Monitoring Requirements: | None required |
| Record Keeping Requirements: | Test reports and monitoring records demonstrating compliance with the testing requirements for pollutant and operational parameters are maintained for a period of five years in accordance with applicable requirements. |
| Reporting Requirements: | Reports submitted to the Department |

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s): EU-1=24-2-0255; EU-2=24-2-0256; EU-3=24-2-0257

Permit Term (Describe requirements and cross-reference)

IV-1.3 Monitoring Requirements:

Condition A. Existing Large MWC Emission Limits

The Permittee shall:

1.(a) Install, calibrate, operate & maintain continuous emission monitors for carbon monoxide, oxygen, opacity, oxides of nitrogen, and sulfur dioxide;

(b) Locate monitors downstream of the final air pollution control device to measure concentrations of oxygen, oxides of nitrogen, sulfur dioxide, and opacity of the exhaust gases; and

(c) Install, operate, and maintain at a minimum, one temperature monitor to measure the temperature of the flue gas as it enters the particulate matter control device

[COMAR 26.11.01.11B(3) & 26.11.08.08B(1)]

Compliance Methods for the Above (Description and Citation):

| | |
|---|---|
| Testing Requirements: | None required. |
| Monitoring Requirements: | Continuous monitors for reference parameters are operated and maintained according applicable requirements |
| Record Keeping Requirements: | Referenced parameters monitor operating and maintenance records will be retained for five years in accordance with applicable requirements. |
| Reporting Requirements: | Monitor down time reported in quarterly, semi-annual and annual reports |

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

A-COMP

## B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1=24-2-0255; EU-2=24-2-0256; EU-3=24-2-0257

Permit Term (Describe requirements and cross-reference)

IV-1.3 Monitoring Requirements:

Condition A. Existing Large MWC Emission Limits

2. If the percent removal option is to be used to show compliance with Sec B(1)(b) of this regulation, sulfur dioxide and oxygen monitors shall also be located upstream of the pollution control device. Monitors shall be located at the combustor outlet exit to measure concentrations of carbon monoxide. [COMAR 26.11.08.08B(2)]

Note: SO2 and O2 are measured upstream of the air pollution control device to calculate % removal and CO is measured downstream of air pollution control devices as approved by COMAR 26.11.08.08(B)(4).

Compliance Methods for the Above (Description and Citation):

| | |
|---|---|
| Testing Requirements: | None required. |
| Monitoring Requirements: | Continuous monitors for SO2 and O2 upstream of the APC device are operated and maintained according to applicable requirements. Continuous monitors for CO located downstream of the APC devices are operated and maintained according to the applicable requirements. |
| Record Keeping Requirements: | All records are retained for five years in accordance with applicable requirements. |
| Reporting Requirements: | Submittal of quarterly, semi-annual and annual reports in accordance applicable requirements. |

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s): EU-1=24-2-0255; EU-2=24-2-0256; EU-3=24-2-0257

Permit Term (Describe requirements and cross-reference)

IV-1.3 Monitoring Requirements:

Condition A. Existing Large MWC Emission Limits

3. The monitors required by COMAR 26.11.08.08B(1)(a) and (b) of this regulation shall meet the installation, certification, reporting, record-keeping, and other requirements of COMAR 26.11.01.10, performance specifications in 40 CFR Part 60, Appendix B, the quality assurance procedures in 40 CFR Part 60, Appendix F, specifications in 40 CFR Sec. 60.58b, and the specifications in the Department's Air and Radiation Management Administration Technical memorandum 90-01 "Continuous Emission Monitoring (CEM) Policies and Procedures", which is incorporated by reference in COMAR 26.11.01.10E. [(COMAR 26.11.08.08B(3)]

4. A person shall apply for and receive written approval from the Department before installing any of the monitors required in this chapter [COMAR 26.11.08.08B(4)]

Compliance Methods for the Above (Description and Citation):

| | |
|---|---|
| Testing Requirements: | Annual RATA (intermittent data)<br>Quarterly Compressed Gas Audits (intermittent data)<br>Quarterly Opacity Audits (intermittent data)<br>Method 9 or 22 for visual emission monitoring (intermittent data) |
| Monitoring Requirements: | Continuous Emission Monitoring (continuous data)<br>Continuous electronic data collection and reduction (continuous data) |
| Record Keeping Requirements: | All testing and monitoring records maintained for a period of five years in accordance with applicable requirements |
| Reporting Requirements: | Quarterly, semi-annual and annual reports as required by applicable conditions |

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

**A-COMP**

## B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1=24-2-0255; EU-2=24-2-0256; EU-3=24-2-0257

Permit Term (Describe requirements and cross-reference)

IV-1.3 Monitoring Requirements:

Condition A. Existing Large MWC Emission Limits

Carbon Feed Rate Monitoring Requirements

5. During the performance tests for dioxins/furans and mercury, as applicable, the owner or operator shall estimate an average carbon mass feed rate based on carbon injection system operating parameters such as screw feeder speed, hopper volume, hopper refill frequency, or other parameters appropriate to the feed system being employed [40 CFR 60.58b(m)(1)]

6. An average carbon mass feed rate in kilograms per hour or pounds per hour shall be estimated during the initial performance tests for mercury emissions and each subsequent performance test for mercury emissions [40 CFR 60.58b(m)(1)(i)]

Compliance Methods for the Above (Description and Citation):

| | |
|---|---|
| Testing Requirements: | stack test |
| Monitoring Requirements: | Continuous emission monitoring system with feed from Bailey system |
| Record Keeping Requirements: | Record kept for 5 years as required by applicable permit requirements. |
| Reporting Requirements: | stack test report |

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s): EU-1=24-2-0255; EU-2=24-2-0256; EU-3=24-2-0257

Permit Term (Describe requirements and cross-reference)

IV-1.3 Monitoring Requirements:

Condition A. Existing Large MWC Emission Limits

Carbon Feed Rate Monitoring Requirements

7. An average carbon mass feed rate in kilograms per hour or pounds per hour shall be estimated during the initial performance tests for dioxin/furan emissions and each subsequent performance test for dioxin/furan emissions. If a subsequent dioxin/furan performance test is being performed on only one affected facility at the MWC plant, the owner or operator may elect to apply the same estimated average carbon feedrate from the tested facility for all similarly designed and operated facilities at the MWC plant [40 CFR 50.58b(m)(1)(ii)].

8. During operation of the affected facility, the carbon injection system operating parameter(s) that are the primary indicator(s) of the carbon mass feed rate shall be averaged over a 8-hour block period and the 8-hour block average must exceed or equal the level(s) documented during the performance tests specified under 40 CFR 60.58b(m)(1)(i)&(ii) except as specified in (m)(2)(i) and (m)(2)(ii). [40 CFR 60.58b(m)(2)]

Compliance Methods for the Above (Description and Citation):

| | |
|---|---|
| Testing Requirements: | stack test report |
| Monitoring Requirements: | Continuous carbon feed monitoring system |
| Record Keeping Requirements: requirements. | All testing and monitoring records maintained for a period of 5 years in accordance with applicable |
| Reporting Requirements: | Quarterly air emission reports<br>2 stack test report<br>5-day reporting requirement as per permit condition. |

Status (Check one): _ __ Intermittent Compliance _X__ Continuous Compliance

A-COMP

## B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1=24-2-0255; EU-2=24-2-0256; EU-3=24-2-0257

Permit Term (Describe requirements and cross-reference)

IV-1.3 Monitoring Requirements:

Condition A. Existing Large MWC Emission Limits

Carbon Feed Rate Monitoring Requirements

9. During the annual dioxin/furan or mercury performance test and the 2 weeks preceding the annual performance test, no limit is applicable for the average mass carbon feed rate if the provisions of (m)(2)(ii) are met [40 CFR 60.58b(m)(2)(i)]

10. The limit for average mass carbon feed rate may be waived in accordance with permission granted by the Administer for the purpose of evaluating system performance, testing new technology or control technology, diagnostic testing or related activities. [40 CFR 60.58b(m)(2)(ii)]

Compliance Methods for the Above (Description and Citation):

| | |
|---|---|
| Testing Requirements: | stack test report |
| Monitoring Requirements: | Continuous emission monitoring system with feed from Bailey system |
| Record Keeping Requirements: | All testing and monitoring records maintained for a period of 5 years in accordance with applicable requirements. |
| Reporting Requirements: | Quarterly air emission reports<br>stack test report |

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s): EU-1=24-2-0255; EU-2=24-2-0256; EU-3=24-2-0257

Permit Term (Describe requirements and cross-reference)

IV-1.3 Monitoring Requirements:

Condition C. PSD Approval 83-01

(1) The Permittee shall monitor natural gas fuel usage to ensure compliance with the PSD limitation. Total facility fuel usage shall be calculated on a 12-month rolling average basis [COMAR 26.11.03.06C(3)]

(2) The Permittee shall continuously monitor pollutants and other parameters necessary to calculate the pounds per hour PSD limits. The methodology for calculating the lb/hr emissions shall be as follows:

Average lbs/hour = ppm x AFSF factor (DSCFH/Klbs) X actual steam flow (Klbs/hr) X Conversion Factor , where:

- ppm = CEM hourly average ppmdv for CO, NOx, and SO2
- Stack test air flow to steam flow factor (AFSF) = Dry standard cubic foot per hour air flow per thousand lbs steam (DSCFH/Klb)
- Actual steam flow (Klbs/hour)
- Conversion Factor = From 40 CFR Part 60 Appendix B Method 19 (procedures for converting ppm to lbs/dscf)
  SO2 = 1.66E-07 NOx = 1.194E-07 CO = 7.27E-08

[COMAR 26.11.03.06C(3)]

Compliance Methods for the Above (Description and Citation):

| | |
|---|---|
| Testing Requirements: | None required |
| Monitoring Requirements: | Continuous monitors are operated and maintained according to applicable requirements. Compliance with total facility lb/hour and tons/year permit emission limits for these pollutants have been calculated since November 7, 2011 (when the modified Title V permit was issued with this requirement) using CEM data and the methodology approved by MDE |
| Record Keeping Requirements: | All testing and monitoring records maintained for a period of 5 years in accordance with applicable requirements. |
| Reporting Requirements: | Quarterly, semi-annual or annual reports air emission reports once methodology is approved |

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

A-COMP

## B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1=24-2-0255; EU-2=24-2-0256; EU-3=24-2-0257

Permit Term (Describe requirements and cross-reference)

IV-1.3 Monitoring Requirements:

Condition E. Visible Emissions

Periodic monitoring shall be done using EPA Reference Method 9 observations on a monthly basis. Observation shall be conducted over a 15-minute period [COMAR 26.11.03.06C(3)]

Compliance Methods for the Above (Description and Citation):

| | |
|---|---|
| Testing Requirements: | None required |
| Monitoring Requirements: | Visual observations conducted monthly. |
| Record Keeping Requirements: | All monitoring records maintained for a period of 5 years in accordance with applicable requirements. |
| Reporting Requirements: | None required |

Status (Check one): __ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): EU-1=24-2-0255; EU-2=24-2-0256; EU-3=24-2-0257

Permit Term (Describe requirements and cross-reference)

IV-1.4 Record Keeping Requirements:

Condition A. Existing Large MWC Emission Limits

(1) The Permittee shall maintain records in accordance with 40 CFR Sec. 60.59(b) of Subpart Eb, as applicable, except for the siting requirements under Sec. 60.59b(a), (b)(5) & (d)(11) of 40 CFR 60 Subpart Eb. [COMAR 26.11.08.08C(1)]

(2) Continuous emissions monitoring data reduction and data availability shall be in accordance with COMAR 26.11.01.10. If there is any inconsistency between COMAR 26.11.01.10 and 40 CFR Part 60, the requirements of 40 CFR Part 60 govern. [COMAR 26.11.08.08C(2)]

(3) The Permittee shall estimate the total carbon usage of the plant for each calendar quarter by two independent methods as stated in conditions 4 and 5 below. [40 CFR 60.58b(m)(3)]

(4) The Permittee shall estimate total carbon usage at the plant by maintaining records of the weight of carbon delivered to the plant on a quarterly basis [40 CFR 60.58b(m)(3)(i)]

(5) The Permittee shall estimate the average carbon mass feed rate for each hour of operation for each affected facility based on the carbon feed system parameters specified during performance testing. Permittee shall sum the result for all affected facilities at the plant for the total number of hours of operation during the calendar quarter [40 CFR 60.58b(m)(3)(ii)]

(6) The Permittee shall retain records of quarterly carbon usage using the methods described above for a period of 5 years and make that data available to the Department upon request [COMAR 26.11.03.06C]

Compliance Methods for the Above (Description and Citation):

| | |
|---|---|
| Testing Requirements: | None required |
| Monitoring Requirements: | Plant scale receipts; continuous emission monitoring system with feed from Bailey system |
| Record Keeping Requirements: | All records retained for 5 years according to applicable requirements |
| Reporting Requirements: | Quarterly, semi-annual and annual air reports |

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

A-COMP

## B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1=24-2-0255; EU-2=24-2-0256; EU-3=24-2-0257

Permit Term (Describe requirements and cross-reference)

IV-1.4 Record Keeping Requirements:

Condition B. Incinerator Operator Training

The Permittee shall maintain a copy of a certificate issued by the Department to each incinerator operator who has satisfactorily completed an approved incinerator training course and has passed the exit examination [COMAR 26.11.08.09 and 26.11.03.06C(3)]

Compliance Methods for the Above (Description and Citation):

| | |
|---|---|
| Testing Requirements: | Department-approved training course |
| Monitoring Requirements: | None required |
| Record Keeping Requirements: | Records retained for five years in accordance with applicable requirements. |
| Reporting Requirements: | None required |

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s): EU-1=24-2-0255; EU-2=24-2-0256; EU-3=24-2-0257

Permit Term (Describe requirements and cross-reference)

IV-1.4 Record Keeping Requirements:

Condition C. PSD Approval 83-01

(1) The Permittee shall retain records of all emissions data and operating parameters and fuel use, as required by the terms of PSD Approval 83-01 for a period of five (5) years. [PSD Approval 83-01 Part II Condition (5) and COMAR 26.11.03.06C]

(2) The Permittee shall maintain records of the calculated pounds per hour and tons per years for a period of 5 years. [COMAR 26.11.03.06C]

(3) The Permittee shall maintain a record of the results of the annual stack test for fluorides for a period of 5 years. [COMAR 26.11.03.06C]

Condition E. Visible Emission Limit

The Permittee shall maintain records of all Method 9 observation taken to demonstrate compliance with COMAR 26.11.08.04, on-site for a period of at least five (5) years. [COMAR 26.11.03.06]

Compliance Methods for the Above (Description and Citation):

| | |
|---|---|
| Testing Requirements: | Stack testing |
| Monitoring Requirements: | Continuous emission monitoring system. Compliance with total facility lb/hour and tons/year permit emission limits for these pollutants have been calculated since November 7, 2011 (when the modified Title V permit was issued with this requirement) using CEM data and the methodology approved by MDE. |
| Record Keeping Requirements: | Records retained for five years in accordance with applicable requirements. |
| Reporting Requirements: | Quarterly, semi-annual and annual air reports; stack test submittals |

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

**A-COMP**

## B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1=24-2-0255; EU-2=24-2-0256; EU-3=24-2-0257

Permit Term (Describe requirements and cross-reference)

IV-1.5 Reporting Requirements:

Condition A. Existing Large MWC Emission Limits

(1) A person who owns an existing MWC subject to this regulation shall report and maintain records in accordance with 40 CFR Sec. 60.59(b) of Subpart Eb, as applicable, except for the siting requirements under Sec. 60.59(a), (b)(5), and (d)(11) of 40 CFR 60 Subpart Eb [COMAR 26.11.08.08C(1)]

(2) Continuous emissions monitoring data reduction and availability shall be as prescribed in COMAR 26.11.01.10. If there is any inconsistency between COMAR 26.11.01.10 and 40 CFR Part 60, the requirements of 40 CFR Part 60 govern [COMAR 26.11.08.08C(2)]

Compliance Methods for the Above (Description and Citation):

| | |
|---|---|
| Testing Requirements: | None Required |
| Monitoring Requirements: | Continuous Emission Monitoring (continuous data)<br>Continuous electronic data collection and reduction (continuous data) |
| Record Keeping Requirements: | Monitoring records and reports maintained for a period of five years |
| Reporting Requirements: | Quarterly air emissions reports, semi-annual emissions reports, annual emissions reports, annual compliance certification, annual emissions certification |

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s): EU-1=24-2-0255; EU-2=24-2-0256; EU-3=24-2-0257

Permit Term (Describe requirements and cross-reference)

IV-1.5 Reporting Requirements:

Condition A. Existing Large MWC Emission Limits

(3) The Permittee shall submit a quarterly CEM/COM and parameter monitoring data excess emission report to the Department not later than 30-days following each calendar quarter. At a minimum, the report shall include:

(a) A listing of the time period, magnitude, and cause of all emissions that exceeded the applicable emission or parameter monitoring standard for the respective emission/parameter averaging time,

(b) A listing of all excluded data and the reason for excluding the data,

(c) A listing of all the 1-hour average emission concentrations, 1-hour percent reduction data, as applicable, and 1-hour parameter monitoring data for any day that there was either an exceedance of an emission or parameter standard or for any day that the Permittee excluded data. The listing is only required for the respective pollutant or parameter that there was an exceedance for or Permittee excluded data,

(d) A listing of time periods (including invalid hourly averages or invalid 6-minute averages for COMs) and cause of all CEM/COM and parameter monitor downtimes, (e) A listing of installation (MWC units) downtime,

(f) Daily calibration activities when results exceed the daily calibration drift limits and the results of all audits performed during the quarter, and

(g) A summary of the quarterly totals of excess emissions, installation downtimes, and monitor downtimes.
[COMAR 26.11.01.10G(2)]

Compliance Methods for the Above (Description and Citation):

| | |
|---|---|
| Testing Requirements: | None Required |
| Monitoring Requirements: | Continuous Emission Monitoring (continuous data)<br>Continuous electronic data collection and reduction (continuous data) |
| Record Keeping Requirements: | Monitoring records and reports maintained for a period of five years |
| Reporting Requirements: | Quarterly air emissions reports |

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

A-COMP

## B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1=24-2-0255; EU-2=24-2-0256; EU-3=24-2-0257

Permit Term (Describe requirements and cross-reference)

IV-1.5 Reporting Requirements:

Condition A. Existing Large MWC Emission Limits

(4) A person who owns an existing MWC subject to this regulation shall submit to the Department semi-annual reports that includes the information specified in paragraph (g)(1) through (g)(5), as applicable, by August 1st and February 1st for the respective reporting periods [40 CFR 60.59b(g)]

(5) A person who owns an existing MWC subject to this regulation shall submit to the Department semi-annual reports that includes the information specified in paragraphs (h)(1) through (h)(5), as applicable, for any recorded pollutant or parameter that does not comply with the pollutant or parameter limit specified under this subpart by August 1st and February 1st for the respective reporting periods [40 CFR 60.59b(h)]

Compliance Methods for the Above (Description and Citation):

| | |
|---|---|
| Testing Requirements: | None Required |
| Monitoring Requirements: | Continuous Emission Monitoring (continuous data)<br>Continuous electronic data collection and reduction (continuous data) |
| Record Keeping Requirements: | Monitoring records and reports maintained for a period of five years |
| Reporting Requirements: | Semi-annual and annual emissions reports, annual compliance certification, annual emissions certification |

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s): EU-1=24-2-0255; EU-2=24-2-0256; EU-3=24-2-0257

Permit Term (Describe requirements and cross-reference)

IV-1.5 Reporting Requirements:

Condition B. Incinerator Operator Training

Record and Notification. Within 10 days after training is complete, the person who conducts an approved incinerator operator training course shall:

(1) Notify the Department in writing, of the names, employee identification numbers, and employer of those incinerator operators who have successfully completed the training course; and

(2) Provide a certificate to each incinerator operator who has satisfactorily completed the training course and has passed the required examination [COMAR 26.11.08.09G(1) & (2)]

Compliance Methods for the Above (Description and Citation):

| | |
|---|---|
| Testing Requirements: | Department-approved training course |
| Monitoring Requirements: | None required |
| Record Keeping Requirements: | Monitoring records maintained for a period of five years |
| Reporting Requirements: | Written notifications to the Department |

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

A-COMP

## B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1=24-2-0255; EU-2=24-2-0256; EU-3=24-2-0257

Permit Term (Describe requirements and cross-reference)

IV-1.5 Reporting Requirements:

Condition C. PSD Approval 83-01

1 The Permittee shall submit the results of annual fluoride tests along with the other annual emission test results that satisfy COMAR 26.11.08.08C(1) [COMAR 26.11.03.06C]

2 The Permittee shall submit a quarterly excess emission report to the Department not later than 30-days following each calendar quarter. At a minimum, the report shall include:

(a) A listing of the time period, magnitude, and cause of all emissions that exceeded the applicable emission standard for the respective emission averaging time along with causes & corrective actions, and

(b) A listing of all 12-month rolling PSD long term emissions for SO2, CO, NOx for the quarter [COMAR 26.11.03.06C]

Compliance Methods for the Above (Description and Citation):

| | |
|---|---|
| Testing Requirements: | stack test |
| Monitoring Requirements: | Continuous emission monitoring system. Compliance with total facility lb/hour permit emission limits for these pollutants have been calculated since November 11, 2011 (when the modified Title V permit was issued with this requirement) using CEM data and the methodology approved by MDE. Similarly, compliance with total facility ton/year permit emission limits for these pollutants will be calculated monthly beginning November 2012 once 12-months of emissions data are collected. |
| Record Keeping Requirements: | Monitoring records maintained for a period of five years |
| Reporting Requirements: | Quarterly air reports<br>stack test report |

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

A-COMP

## B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1=24-2-0255; EU-2=24-2-0256; EU-3=24-2-0257

Permit Term (Describe requirements and cross-reference)

IV-1.5 Reporting Requirements:

Condition C. PSD Approval 83-01

3. If, for any reason, Permittee does not comply or will not be able to comply with the emissions limitations or other conditions specified in the Approval, Permittee shall provide the Department with the following information as soon as possible, but no later than five (5) days after such conditions become known to the Company:

(a) Description of non-compliance;
(b) Cause of non-compliance;
(c) Anticipated time the non-compliance is expected to continue or, if corrected, the actual duration of non-compliance;
(d) Steps taken to minimize or eliminate non-compliance; and
(e) Steps taken to prevent recurrence of the non-compliance.

Submittal of this report does not constitute a waiver of the emission limitations or other conditions of this Approval nor does it in anyway restrict the Department's authority to enforce the conditions. [PSD Approval 83-01 Part II-Condition (6)]

Note: This report applies to noncompliance with PSD Approval 83-01 emission limits and other PSD conditions only.

3. [sic] In the event of any change in control of ownership, the Permittee shall notify the succeeding owner of the existence of the Approval by letter and send a copy of that letter to the Department [PSD Approval 83-01 Part II-Condition (9)]

Compliance Methods for the Above (Description and Citation):

| | |
|---|---|
| Testing Requirements: | None required |
| Monitoring Requirements: | None required |
| Record Keeping Requirements: | Records maintained for a period of five years |
| Reporting Requirements: | Notification reports (phone logs, emails, written communications) |

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s): EU-1=24-2-0255; EU-2=24-2-0256; EU-3=24-2-0257

Permit Term (Describe requirements and cross-reference)

IV-1.5 Reporting Requirements:

Condition E. Visible Emission Limit

Report deviations in accordance with Section III Plant Wide Conditions Item 4 Report of Excess Emissions Deviations

Compliance Methods for the Above (Description and Citation):

| | |
|---|---|
| Testing Requirements: | None required |
| Monitoring Requirements: | None required |
| Record Keeping Requirements: | Records maintained for a period of five years |
| Reporting Requirements: | Notification reports (phone logs, emails, written communications) |

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

B. COMPLIANCE STATUS

**A-COMP**

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): EU-1=24-2-0255; EU-2=24-2-0256; EU-3=24-2-0257

Permit Term (Describe requirements and cross-reference)

V. (i) Operation and Maintenance Requirements: Permittee must comply with the requirements in item 1 of Table 2c to 40 CFR part 63, subpart ZZZZ as follows:

A. Change oil and filter every 500 hours of operation or annually, whichever comes first.

B. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary;

C. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

D. Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

E. The Permittee may petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

(ii) Must comply with all applicable requirement of Subpart ZZZZ at all times

(iii) At all times any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

(iv) The Permittee must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

(vi) must have non resettable hour meter

Compliance Methods for the Above (Description and Citation):

| | |
|---|---|
| Testing Requirements: | None required |
| Monitoring Requirements: | None required |
| Record Keeping Requirements: | Records maintained for a period of five years |
| Reporting Requirements: | Notification reports (phone logs, emails, written communications) |

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s): EU-1=24-2-0255; EU-2=24-2-0256; EU-3=24-2-0257

Permit Term (Describe requirements and cross-reference)

V. (i) Record Keeping Requirements: Must keep records of the maintenance conducted on the fire pump engine in order to demonstrate that the fire pump engine was operated and maintained according to the Permittee's own maintenance plan.

(ii) keep records of the hours of operation of the fire pump engine that is recorded through the non-resettable hour meter and to document how many hours were spent for emergency operation, including what classified the operation as emergency and how many hours were spent for nonemergency operation.

(iii)-(v) Must keep records readily available and be kept for 5 years following date of each occurrence, event, maintenance, corrective action etc.

Compliance Methods for the Above (Description and Citation):

| | |
|---|---|
| Testing Requirements: | None required |
| Monitoring Requirements: | None required |
| Record Keeping Requirements: | Records maintained for a period of five years |
| Reporting Requirements: | Notification reports (phone logs, emails, written communications) |

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

## C. DEVIATIONS FROM PERMIT TERMS AND CONDITIONS

Report all deviations from permit terms (whether reported previously or not) that occurred during the permit term. Cross-reference deviations already reported in the six-month report. Indicate whether each deviation is a possible exception to compliance. Start and end period of each deviation should be in mo/day/yr, hr:min format (24-hour clock). Also specify the date when the written deviation report was submitted (If written report required, but not submitted, leave the date field blank).

There were no deviations.

# CERTIFICATION OF PLANT-WIDE CONDITIONS (SECTION III OF PART 70 OPERATING PERMIT)

## 1. PARTICULATE MATTER FROM CONSTRUCTION AND DEMOLITION

**[COMAR 26.11.06.03D]**

The Permittee shall not cause or permit any building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne.

*Continuous Compliance – No construction or demolition projects occurred at the facility during the reporting period.*

## 2. OPEN BURNING

**[COMAR 26.11.07]**

Except as provided in COMAR 26.11.07.04, the Permittee shall not cause or permit an open fire from June 1 through August 31 of any calendar year. Prior to any open burning, the Permittee shall request and receive approval from the Department.

*Continuous Compliance – No open burning projects occurred at the facility during the reporting period.*

## 3. AIR POLLUTION EPISODE

**[COMAR 26.11.05.04]**

When requested by the Department, the Permittee shall prepare in writing standby emissions reduction plans, consistent with good industrial practice and safe operating procedures, for reducing emissions creating air pollution during periods of Alert, Warning, and Emergency of an air pollution episode.

*Not applicable – The Department has not requested standby emissions reduction plans.*

## 4. REPORT OF EXCESS EMISSIONS AND DEVIATIONS

**[COMAR 26.11.01.07] and [COMAR 26.11.03.06C(7)]**

The Permittee shall comply with the following conditions for occurrences of excess emissions and deviations from requirements of this permit, including those in Section IV - State-only Enforceable Conditions:

a. Report any deviation from permit requirements that could endanger human health or the environment, by orally notifying the Department immediately upon discovery of the deviation;

b. Promptly report all occurrences of excess emissions that are expected to last for one hour or longer by orally notifying the Department of the onset and termination of the occurrence;

c. When requested by the Department the Permittee shall report all deviations from permit conditions, including those attributed to malfunctions as defined in COMAR 26.11.01.07A, within 5 days of the request by submitting a written description of the deviation to the Department. The written report shall include the cause, dates and times of the onset and termination of the deviation, and an account of all actions planned or taken to reduce, eliminate, and prevent recurrence of the deviation;

d. The Permittee shall submit to the Department semi-annual monitoring reports that confirm that all required monitoring was performed, and that provide accounts of all deviations from permit requirements that occurred during the reporting periods. Reporting periods shall be January 1 through June 30 and July 1 through December 31, and reports shall be submitted within 30 days of the end of each reporting period. Each account of deviation shall include a description of the deviation, the dates and times of onset and termination, identification of the person who observed or discovered the deviation, causes and corrective actions taken, and actions taken to prevent recurrence. If no deviations from permit conditions occurred during a reporting period, the Permittee shall submit a written report that so states.

e. When requested by the Department, the Permittee shall submit a written report to the Department within 10 days of receiving the request concerning an occurrence of excess emissions. The report shall contain the information required in COMAR 26.11.01.07D(2).

*Continuous Compliance*

## 5. ACCIDENTAL RELEASE PROVISIONS

**[COMAR 26.11.03.03B(23)] and [40 CFR Part 68]**

Should the Permittee become subject to 40 CFR 68 during the term of this permit, the Permittee shall submit risk management plans by the date specified in 40 CFR 68.150 and shall certify compliance with the requirements of 40 CFR 68 as part of the annual compliance certification as required by 40 CFR 70.

The Permittee shall initiate a permit revision or reopening according to the procedures of 40 CFR 70.7 to incorporate appropriate permit conditions into the Permittee's Part 70 Permit.

*Continuous Compliance – Facility is not subject to 40 CFR 68.*

## 6. GENERAL TESTING REQUIREMENTS

**[COMAR 26.11.01.04]**

The Department may require the Permittee to conduct, or have conducted, testing to determine compliance with this Part 70 permit. The Department, at its option, may witness or conduct these tests. This testing shall be done at a reasonable time, and all information gathered during a testing operation shall be provided to the Department.

*Continuous Compliance – Stack tests conducted during May 2022, October 2022 and Dec 2022*

## 7. EMISSIONS TEST METHODS

**[COMAR 26.11.01.04]**

Compliance with the emissions standards and limitations in this Part 70 permit shall be determined by the test methods designated and described below or other test methods submitted to and approved by the Department.

Reference documents of the test methods approved by the Department include the following:

a. 40 CFR 60, appendix A

b. 40 CFR 51, appendix M

c. The Department's Technical Memorandum 91-01 "Test Methods and Equipment Specifications for Stationary Sources", (January 1991), as amended through Supplement 3, (October 1, 1997)

*Continuous Compliance – Testing protocols followed by the facility has been submitted and approved by the Department.*

## 8. EMISSIONS CERTIFICATION REPORT

**[COMAR 26.11.01.05-1] and [COMAR 26.11.02.19C] and [COMAR 26.11.02.19D]**

The Permittee shall certify actual annual emissions of regulated pollutants from the facility on a calendar year basis.

a. The certification shall be on forms obtained from the Department and submitted to the Department not later than April 1 of the year following the year for which the certification is required;

b. The individual making the certification shall certify that the information is accurate to the individual's best knowledge. The individual shall be:

(1) Familiar with each source for which the certification form is submitted, and
(2) Responsible for the accuracy of the emission information;

c. The Permittee shall maintain records necessary to support the emission certification including the following information if applicable:

(1) The total amount of actual emissions of each regulated pollutant and the total of all regulated pollutants;
(2) An explanation of the methods used to quantify the emissions and the operating schedules and production data that were used to determine emissions, including significant assumptions made;
(3) Amounts, types, and analyses of all fuels used;
(4) Emission data from continuous emission monitors that are required by this permit, including monitor calibration and malfunction information;
(5) Identification, description, and use records of all air pollution control equipment and compliance monitoring equipment including:
    (a) Significant maintenance performed,
    (b) Malfunctions and downtime, and
    (c) Episodes of reduced efficiency of all the equipment;
(6) Limitations on source operation or any work practice standards that significantly affect emissions; and
(7) Other relevant information as required by the Department.

*Continuous Compliance – Emissions Certification Report is submitted as part of this compliance report.*

## 9. COMPLIANCE CERTIFICATION REPORT

**[COMAR 26.11.03.06G(6) and (7)]**

The Permittee shall submit to the Department and EPA Region III a report certifying compliance with each term of this Part 70 permit including each applicable standard, emission limitation, and work practice for the previous calendar year by April 1 of each year.

a. The compliance certification shall include:

(1) The identification of each term or condition of this permit which is the basis of the certification;
(2) The compliance status;
(3) Whether the compliance was continuous or intermittent;
(4) The methods used for determining the compliance status of the source, currently and over the reporting period; and
(5) Any other information required to be reported to the Department that is necessary to determine the compliance status of the Permittee with this permit.

b. The Permittee shall submit the compliance certification reports to the Department and EPA simultaneously.

*Continuous Compliance – This Compliance Certification Report has been submitted to the Department and U.S. EPA no later than April 1, 2022.*

## 10. CERTIFICATION BY RESPONSIBLE OFFICIAL

**[COMAR 26.11.02.02F]**

All application forms, reports, and compliance certifications submitted pursuant to this permit shall be certified by a responsible official as to truth, accuracy, and completeness. The Permittee shall expeditiously notify the Department of an appointment of a new responsible official.

The certification shall be in the following form:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

*Continuous Compliance – All submittals contain the appropriate wording*

## 11. SAMPLING AND EMISSIONS TESTING RECORD KEEPING

**[COMAR 26.11.03.06C(5)]**

The Permittee shall gather and retain the following information when sampling and testing for compliance demonstrations:

a. The location as specified in this permit, and the date and time that samples and measurements are taken;

b. All pertinent operating conditions existing at the time that samples and measurements are taken;

c. The date that each analysis of a sample or emissions test is performed and the name of the person taking the sample or performing the emissions test;

d. The identity of the Permittee, individual, or other entity that performed the analysis;

e. The analytical techniques and methods used; and

f. The results of each analysis.

*Continuous Compliance – All required information is collected and included in the annual stack test report.*

## 12. GENERAL RECORDKEEPING

**[COMAR 26.11.03.06(C)(6)]**

The Permittee shall retain records of all monitoring data and information that support the compliance certification for a period of five (5) years from the date that the monitoring sample measurement, application, report or emissions test was completed or submitted to the Department.

These records and support information shall include:

a. All calibration and maintenance records;

b. All original data collected from continuous monitoring instrumentation;

c. Records which support the annual emissions certification; and

d. Copies of all reports required by this permit.

*Continuous Compliance –All applicable records maintained.*

## 13. GENERAL CONFORMITY

**[COMAR 26.11.26.09]**

The Permittee shall comply with the general conformity requirements of 40 CFR Part 93, Subpart B and COMAR 26.11.26.09.

*Not applicable – There have been no construction modifications requiring a conformity review.*

## 14. ASBESTOS PROVISIONS – NOT APPLICABLE

**[40 CFR 61, Subpart M]**

The Permittee shall comply with 40 CFR 61, Subpart M when conducting any renovation or demolition activities at the facility.

*Not applicable – Asbestos is not used at this facility.*

## 15. OZONE DEPLETING REGULATIONS – NOT APPLICABLE

**[40 CFR 82, Subpart F]**

The Permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for MVACs in subpart B:

a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the prohibitions and required practices pursuant to 40 CFR 82.154 and 82.156.

b. Equipment used during the maintenance, service, repair or disposal of appliances shall comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

c. Persons performing maintenance, service, repairs or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.

d. Persons performing maintenance, service, repairs or disposal of appliances shall certify with the Administrator pursuant to 40 CFR 82.162.

e. Persons disposing of small appliances, MVACS, and MVAC-like appliances as defined in 40 CFR 82.152, shall comply with record keeping requirements pursuant to 40 CFR 82.166.

f. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.

g. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

*Continuous Compliance – All maintenance is performed by licensed employees or licensed contractors and all refrigerants are disposed according to 40 CFR 82.*

## 16. ACID RAIN PERMIT – NOT APPLICABLE

*This facility is not subject to the Acid Rain permitting provisions found in Title IV of the 1990 CAAA.*

MARYLAND DEPARTMENT OF THE ENVIRONMENT
1800 Washington Boulevard, Suite 715 Baltimore Maryland 21230-1720
410-537-3000 1-800-633-6101 http://www.mde.state.md.us
Air and Radiation Management Administration
Air Quality Compliance Program
410-537-3220

**FORM 1:**

# GENERAL FACILITY INFORMATION
# EMISSIONS CERTIFICATION REPORT

**Calendar Year**: 2022

| A. FACILITY IDENTIFICATION | **Do Not Write in This Space** |
|---|---|
| Facility Name **Wheelabrator Baltimore, L.P.** | Date Received Regional |
| Address **1801 Annapolis Road** | Date Received State |
| City **Baltimore** County **City of Baltimore** Zip Code **21230** | AIRS Code |
| B. Briefly describe the major function of the facility | FINDS Code |
| Wheelabrator Baltimore, L.P. is a large municipal solid waste combustor which processes up to 2,250 | SIC Code |
| tons of municipal solid waste per day and has the capacity to generate 60,000 kilowatts of energy. | Facility Number: |
| | TEMPO ID: |

C. SEASONAL PRODUCTION (%, if applicable)

| Winter *(Dec.-Feb.)* | Spring *(Mar – May)* | Summer *(Jun – Aug)* | Fall *(Sept – Nov)* |
|---|---|---|---|
| 25.5% | 20.9% | 26.1% | 27.6% |

Reviewed by:

Name Date

D. Explain any increases or decreases in emissions from the previous calendar year for each registration at this facility.

Changes due to seasonal variability (weather / fuel related) as well as annual variability in stack test results.

E. CONTROL DEVICE INFORMATION (for NOx and VOC sources only)

| Control Device | Capture Efficiency | Removal Efficiency |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

I am familiar with the facility and the installations and sources for which this report is submitted. I have personally examined the information in this report, which consists of ____ pages (including attachments), and certify that the information is correct to the best of my knowledge.

| **Jim Robertson** | **Plant Manager** | **3/30/2023** |
|---|---|---|
| Name (Print/Type) | Title | Date |
| Signature | | **(410) 234-0808 x212** Telephone |

**FORM 2:**

# CRITERIA AIR POLLUTANTS
# EMISSIONS CERTIFICATION REPORT

**Calendar Year:** 2022

Facility Name: **Wheelabrator Baltimore, L.P.** Facility ID#: **24-510-01886** Pollutant: **Carbon Monoxide (CO)**

| Equipment Description/ Registration No | SCC Number | Fuel | | Actual Emissions | | Operating Schedule (Actual) | | | | TOSD | Operating Schedule | | | Emissions Methods |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Tons/yr | Lbs/day | Hrs/dy | Dys/wk | Wk/yr | Days/yr | Lbs/dy | Hrs/dy | Start | End | |
| **2-24-0255 Boiler 1** | | **MSW** | S | **27.8** | **183** | **24** | **7** | **52** | **304** | | **24** | **00:00** | **24:00** | **C-1** |
| | | | F | | | | | | | | | | | |
| **2-24-0256 Boiler 2** | | **MSW** | S | **21.0** | **169** | **24** | **7** | **52** | **248** | | **24** | **00:00** | **24:00** | **C-1** |
| | | | F | | | | | | | | | | | |
| **2-24-0257 Boiler 3** | | **MSW** | S | **15.9** | **155** | **24** | **7** | **52** | **205** | | **24** | **00:00** | **24:00** | **C-1** |
| | | | F | | | | | | | | | | | |
| | | | S | | | | | | | | | | | |
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| | | | S | | | | | | | | | | | |
| | | | F | | | | | | | | | | | |
| Total | | | | **64.7** | **507** | | | | | | | | | |

S-Stack Emissions F-Fugitive Emissions Daily emissions (lbs/day) are lbs/operating day of source

**TOSD**: Typical Ozone Season Day means a typical day of that period of the year during which conditions for photochemical conditions are most favorable, which is generally during sustained periods of direct sunlight and warm temperatures (April-September). This section needs to be completed only for VOC and NOx sources.

**Fuel**: Include emissions for each fuel used. If more than one fuel is used, calculate and list emissions separately for each fuel MSW = Municipal Solid Waste

**Emission Estimation Method**

A1-U.S. EPA Reference Method
A2-Other Particulate Sampling Train
A3-Liquid Absorption technique
A4-Solid Absorption Technique
A5-Freezing Out technique
A9-Other, Specify

C1-User calculated based on source test or other measurement
C2-User calculated based on material balance using engineering knowledge of the process
C3-User calculated based on AP-42
C4-User calculated by best guess/engineering Judgment

C5-User calculated based on a State or local agency emission factor
C6-New construction, not operational
C7-Source closed, operation ceased
C8-Computer calculated based on standard

**FORM 2:**

# CRITERIA AIR POLLUTANTS
# EMISSIONS CERTIFICATION REPORT

**Calendar Year:** 2022

Facility Name: **Wheelabrator Baltimore, L.P.** Facility ID#: **24-510-01886** Pollutant: **Lead**

| Equipment Description/ Registration No. | SCC Number | Fuel | | Actual Emissions | | Operating Schedule (Actual) | | | | TOSD | Operating Schedule | | | Emissions Methods |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Tons/yr | Lbs/day | Hrs/dy | Dys/wk | Wk/yr | Days/yr | Lbs/dy | Hrs/dy | Start | End | |
| **2-24-0255 Boiler 1** | | **MSW** | S | **0.0076** | **0.050** | **24** | **7** | **52** | **304** | | **24** | **00:00** | **24:00** | **C-1** |
| | | | F | | | | | | | | | | | |
| **2-24-0256 Boiler 2** | | **MSW** | S | **0.01001** | **0.081** | **24** | **7** | **52** | **248** | | **24** | **00:00** | **24:00** | **C-1** |
| | | | F | | | | | | | | | | | |
| **2-24-0257 Boiler 3** | | **MSW** | S | **0.0096** | **0.094** | **24** | **7** | **52** | **205** | | **24** | **00:00** | **24:00** | **C-1** |
| | | | F | | | | | | | | | | | |
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| | | | F | | | | | | | | | | | |
| | | | S | | | | | | | | | | | |
| | | | F | | | | | | | | | | | |
| Total | | | | **0.0273** | **0.225** | | | | | | | | | |

S-Stack Emissions F-Fugitive Emissions Daily emissions (lbs/day) are lbs/operating day of source

**TOSD**: Typical Ozone Season Day means a typical day of that period of the year during which conditions for photochemical conditions are most favorable, which is generally during sustained periods of direct sunlight and warm temperatures (April-September). This section needs to be completed only for VOC and NOx sources.

**Fuel**: Include emissions for each fuel used. If more than one fuel is used, calculate and list emissions separately for each fuel. **MSW** = Municipal Solid Waste

**Emission Estimation Method**

A1-U.S. EPA Reference Method
A2-Other Particulate Sampling Train
A3-Liquid Absorption technique
A4-Solid Absorption Technique
A5-Freezing Out technique
A9-Other, Specify

C1-User calculated based on source test or other measurement
C2-User calculated based on material balance using engineering knowledge of the process
C3-User calculated based on AP-42
C4-User calculated by best guess/engineering Judgment

C5-User calculated based on a State or local agency emission factor
C6-New construction, not operational
C7-Source closed, operation ceased
C8-Computer calculated based on standard

**FORM 2:**

# CRITERIA AIR POLLUTANTS
# EMISSIONS CERTIFICATION REPORT

**Calendar Year:** 2022

Facility Name: **Wheelabrator Baltimore, L.P.** Facility ID#: **24-510-01886** Pollutant: **Nitrogen Oxides (NOx)**

| Equipment Description/ Registration No | SCC Number | Fuel | | Actual Emissions | | Operating Schedule (Actual) | | | | TOSD | Operating Schedule | | | Emissions Methods |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Tons/yr | Lbs/day | Hrs/dy | Dys/wk | Wk/yr | Days/yr | Lbs/dy | Hrs/dy | Start | End | |
| **2-24-0255 Boiler 1** | | **MSW** | S | **276.9** | **1822** | **24** | **7** | **52** | **304** | | **24** | **00:00** | **24:00** | **C-1** |
| | | | F | | | | | | | | | | | |
| **2-24-0256 Boiler 2** | | **MSW** | S | **219.2** | **1768** | **24** | **7** | **52** | **248** | | **24** | **00:00** | **24:00** | **C-1** |
| | | | F | | | | | | | | | | | |
| **2-24-0257 Boiler 3** | | **MSW** | S | **176.2** | **1719** | **24** | **7** | **52** | **205** | | **24** | **00:00** | **24:00** | **C-1** |
| | | | F | | | | | | | | | | | |
| | | | S | | | | | | | | | | | |
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| | | | F | | | | | | | | | | | |
| | | | S | | | | | | | | | | | |
| | | | F | | | | | | | | | | | |
| Total | | | | **672.3** | **5309** | | | | | | | | | |

S-Stack Emissions F-Fugitive Emissions Daily emissions (lbs/day) are lbs/operating day of source

**TOSD**: Typical Ozone Season Day means a typical day of that period of the year during which conditions for photochemical conditions are most favorable, which is generally during sustained periods of direct sunlight and warm temperatures (April-September). This section needs to be completed only for VOC and NOx sources.

**Fuel**: Include emissions for each fuel used. If more than one fuel is used, calculate and list emissions separately for each fuel. **MSW** = Municipal Solid Waste

**Emission Estimation Method**

A1-U.S. EPA Reference Method
A2-Other Particulate Sampling Train
A3-Liquid Absorption technique
A4-Solid Absorption Technique
A5-Freezing Out technique
A9-Other, Specify

C1-User calculated based on source test or other measurement
C2-User calculated based on material balance using engineering knowledge of the process
C3-User calculated based on AP-42
C4-User calculated by best guess/engineering Judgment

C5-User calculated based on a State or local agency emission factor
C6-New construction, not operational
C7-Source closed, operation ceased
C8-Computer calculated based on standard

**FORM 2:**

# CRITERIA AIR POLLUTANTS
# EMISSIONS CERTIFICATION REPORT

**Calendar Year:** 2022

Facility Name: **Wheelabrator Baltimore, L.P.** Facility ID#: **24-510-01886** Pollutant: **Sulfur Dioxide (SO2)**

| Equipment Description/ Registration No. | SCC Number | Fuel | | Actual Emissions | | Operating Schedule (Actual) | | | | TOSD | Operating Schedule | | | Emissions Methods |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Tons/yr | Lbs/day | Hrs/dy | Dys/wk | Wk/yr | Days/yr | Lbs/dy | Hrs/dy | Start | End | |
| **2-24-0255 Boiler 1** | | **MSW** | S | **74.3** | **489** | **24** | **7** | **52** | **304** | | **24** | **00:00** | **24:00** | **C-1** |
| | | | F | | | | | | | | | | | |
| **2-24-0256 Boiler 2** | | **MSW** | S | **64.1** | **517** | **24** | **7** | **52** | **248** | | **24** | **00:00** | **24:00** | **C-1** |
| | | | F | | | | | | | | | | | |
| **2-24-0257 Boiler 3** | | **MSW** | S | **54.7** | **534** | **24** | **7** | **52** | **205** | | **24** | **00:00** | **24:00** | **C-1** |
| | | | F | | | | | | | | | | | |
| | | | S | | | | | | | | | | | |
| | | | F | | | | | | | | | | | |
| | | | S | | | | | | | | | | | |
| | | | F | | | | | | | | | | | |
| | | | S | | | | | | | | | | | |
| | | | F | | | | | | | | | | | |
| | | | S | | | | | | | | | | | |
| | | | F | | | | | | | | | | | |
| | | | S | | | | | | | | | | | |
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| | | | S | | | | | | | | | | | |
| | | | F | | | | | | | | | | | |
| | | | S | | | | | | | | | | | |
| | | | F | | | | | | | | | | | |
| Total | | | | **193.1** | **1540** | | | | | | | | | |

S-Stack Emissions F-Fugitive Emissions Daily emissions (lbs/day) are lbs/operating day of source

**TOSD** Typical Ozone Season Day means a typical day of that period of the year during which conditions for photochemical conditions are most favorable, which is generally during sustained periods of direct sunlight and warm temperatures (April-September). This section needs to be completed only for VOC and NOx sources.

**Fuel** Include emissions for each fuel used. If more than one fuel is used, calculate and list emissions separately for each fuel. **MSW** = Municipal Solid Waste

**Emission Estimation Method**

A1-U.S. EPA Reference Method
A2-Other Particulate Sampling Train
A3-Liquid Absorption technique
A4-Solid Absorption Technique
A5-Freezing Out technique
A9-Other, Specify

C1-User calculated based on source test or other measurement
C2-User calculated based on material balance using engineering knowledge of the process
C3-User calculated based on AP-42
C4-User calculated by best guess/engineering Judgment

C5-User calculated based on a State or local agency emission factor
C6-New construction, not operational
C7-Source closed, operation ceased
C8-Computer calculated based on standard

**FORM 2:**

# CRITERIA AIR POLLUTANTS
# EMISSIONS CERTIFICATION REPORT

**Calendar Year:** 2022

Facility Name: **Wheelabrator Baltimore, L.P.** Facility ID#: **24-510-01886** Pollutant: **VOC**

| Equipment Description/ Registration No | SCC Number | Fuel | | Actual Emissions | | Operating Schedule (Actual) | | | | TOSD | Operating Schedule | | | Emissions Methods |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Tons/yr | Lbs/day | Hrs/dy | Dys/wk | Wk/yr | Days/yr | Lbs/dy | Hrs/dy | Start | End | |
| **2-24-0255 Boiler 1** | | **MSW** | S | **0.2** | **1.3** | **24** | **7** | **52** | **304** | | **24** | **00:00** | **24:00** | **C-1** |
| | | | F | | | | | | | | | | | |
| **2-24-0256 Boiler 2** | | **MSW** | S | **00** | **0** | **24** | **7** | **52** | **248** | | **24** | **00:00** | **24:00** | **C-1** |
| | | | F | | | | | | | | | | | |
| **2-24-0257 Boiler 3** | | **MSW** | S | **0.3** | **2.9** | **24** | **7** | **52** | **205** | | **24** | **00:00** | **24:00** | **C-1** |
| | | | F | | | | | | | | | | | |
| | | | S | | | | | | | | | | | |
| | | | F | | | | | | | | | | | |
| | | | S | | | | | | | | | | | |
| | | | F | | | | | | | | | | | |
| | | | S | | | | | | | | | | | |
| | | | F | | | | | | | | | | | |
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| | | | F | | | | | | | | | | | |
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| | | | S | | | | | | | | | | | |
| | | | F | | | | | | | | | | | |
| Total | | | | | | | | | | | | | | |

S-Stack Emissions F-Fugitive Emissions Daily emissions (lbs/day) are lbs/operating day of source

**TOSD**: Typical Ozone Season Day means a typical day of that period of the year during which conditions for photochemical conditions are most favorable, which is generally during sustained periods of direct sunlight and warm temperatures (April-September). This section needs to be completed only for VOC and NOx sources.

**Fuel**: Include emissions for each fuel used. If more than one fuel is used, calculate and list emissions separately for each fuel. MSW = Municipal Solid Waste

**Emission Estimation Method**

A1-U.S. EPA Reference Method
A2-Other Particulate Sampling Train
A3-Liquid Absorption technique
A4-Solid Absorption Technique
A5-Freezing Out technique
A9-Other, Specify

C1-User calculated based on source test or other measurement
C2-User calculated based on material balance using engineering knowledge of the process
C3-User calculated based on AP-42
C4-User calculated by best guess/engineering Judgment

C5-User calculated based on a State or local agency emission factor
C6-New construction, not operational
C7-Source closed, operation ceased
C8-Computer calculated based on standard

**FORM 3: PM**

# EMISSIONS CERTIFICATION REPORT

**Calendar Year:** 2022

Facility Name: **Wheelabrator Baltimore, L.P.** Facility ID#: **24-510-01886** Pollutant: **Particulate Matter**

| Equipment Description/ Registration No | SCC Number | Fuel | | PM - Filterable | | PM 10 - Filterable | | PM 2.5 - Filterable | | PM Condensable | | Operation | Emissions Methods |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Tons/yr | Lbs/day | Tons/yr | Lbs/day | Tons/yr | Lbs/day | Tons/yr | Lbs/day | Days/yr | |
| **2-24-0255 Boiler 1** | | **MSW** | S | **0.8** | **5.3** | **0.8** | **5.3** | **0.8** | **5.3** | **7.5** | **49.3** | **304** | **C-1/A-1** |
| | | | F | | | | | | | | | | |
| **2-24-0256 Boiler 2** | | **MSW** | S | **4.0** | **32.3** | **4.0** | **32.3** | **4.0** | **32.3** | **13.2** | **106.5** | **248** | **C-1/A-1** |
| | | | F | | | | | | | | | | |
| **2-24-0257 Boiler 3** | | **MSW** | S | **3.0** | **29.3** | **3.0** | **29.3** | **3.0** | **29.3** | **4.9** | **47.8** | **205** | **C-1/A-1** |
| | | | F | | | | | | | | | | |
| | | | S | | | | | | | | | | |
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| | | | S | | | | | | | | | | |
| | | | F | | | | | | | | | | |
| Total | | | | **7.8** | **66.8** | **7.8** | **66.8** | **7.8** | **66.8** | **25.6** | **203.6** | | |

S-Stack Emissions F-Fugitive Emissions Daily emissions (lbs/day) are lbs/operating day of source

**Fuel**: Include emissions for each fuel used. If more than one fuel is used, calculate and list emissions separately for each fuel. **MSW** = Municipal Solid Waste

**Emission Estimation Method**

A1-U.S. EPA Reference Method
A2-Other Particulate Sampling Train
A3-Liquid Absorption technique
A4-Solid Absorption Technique
A5-Freezing Out technique
A9-Other, Specify

C1-User calculated based on source test or other measurement
C2-User calculated based on material balance using engineering knowledge of the process
C3-User calculated based on AP-42
C4-User calculated by best guess/engineering Judgment

C5-User calculated based on a State or local agency emission factor
C6-New construction, not operational
C7-Source closed, operation ceased
C8-Computer calculated based on standard

**FORM 4:** **Calendar Year: 2022**

## TOXIC AIR POLLUTANTS

## EMISSIONS CERTIFICATION REPORT

Facility Name: **Wheelabrator Baltimore, L.P.** Facility ID: **24-510-01886** Pollutant: **Arsenic***

| Equipment Description/ Registration Number [1] | Actual Emissions | | | Control Device ** | % Efficiency |
|---|---|---|---|---|---|
| | Tons/yr | Lbs/day | Lbs/hour | | |
| **2-24-0255 Boiler 1** | **.0003** | **.0020** | **.0000762** | **S/ESP** | |
| **2-24-0256 Boiler 2** | **.0002** | **.0016** | **.0000601** | **S/B** | |
| **2-24-0257 Boiler 3** | **.0004** | **.0039** | **.000160** | **S/B** | |
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| TOTALS | **0.0009** | **0.0075** | **0.00030** | | |

*Please attach all calculations.

*See Attachment 1 for the minimum reporting values

**Control Device
S = Scrubber
B = Baghouse
ESP =Electrostatic Precipitator
A = Afterburner
C = Condenser
AD = Adsorbtion
O = Other

[1] Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

**FORM 4:** **Calendar Year: 2022**

## TOXIC AIR POLLUTANTS

## EMISSIONS CERTIFICATION REPORT

Facility Name: **Wheelabrator Baltimore, L.P.** Facility ID: **24-510-01886** Pollutant: **Cadmium***

| Equipment Description/ Registration Number [1] | Actual Emissions | | | Control Device ** | % Efficiency |
|---|---|---|---|---|---|
| | Tons/yr | Lbs/day | Lbs/hour | | |
| **2-24-0255 Boiler 1** | **.0005** | **.003** | **.000139** | **S/ESP** | |
| **2-24-0256 Boiler 2** | **.0008** | **.006** | **.000259** | **S/B** | |
| **2-24-0257 Boiler 3** | **.0008** | **.008** | **.000367** | **S/B** | |
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| TOTALS | **0.0021** | **0.017** | **0.000765** | | |

*Please attach all calculations.

*See Attachment 1 for the minimum reporting values

**Control Device
S = Scrubber
B = Baghouse
ESP =Electrostatic Precipitator
A = Afterburner
C = Condenser
AD = Adsorbtion
O = Other

[1] Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

**FORM 4:** **Calendar Year: 2022**

## TOXIC AIR POLLUTANTS

## EMISSIONS CERTIFICATION REPORT

Facility Name: **Wheelabrator Baltimore, L.P.** Facility ID: **24-510-01886** Pollutant: **Chromium***

| Equipment Description/ Registration Number [1] | Actual Emissions | | | Control Device ** | % Efficiency |
|---|---|---|---|---|---|
| | Tons/yr | Lbs/day | Lbs/hour | | |
| **2-24-0255 Boiler 1** | **.0028** | **.0184** | **.000785** | **S/ESP** | |
| **2-24-0256 Boiler 2** | **.0010** | **.0081** | **.000358** | **S/B** | |
| **2-24-0257 Boiler 3** | **.0008** | **.0078** | **.000539** | **S/B** | |
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| TOTALS | **.0046** | **.0343** | **.00168** | | |

*Please attach all calculations.

*See Attachment 1 for the minimum reporting values

**Control Device
S = Scrubber
B = Baghouse
ESP =Electrostatic Precipitator
A = Afterburner
C = Condenser
AD = Adsorbtion
O = Other

[1] Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

**FORM 4:** **Calendar Year: 2022**

## TOXIC AIR POLLUTANTS

## EMISSIONS CERTIFICATION REPORT

Facility Name: **Wheelabrator Baltimore, L.P.** Facility ID: **24-510-01886** Pollutant: **Copper***

| Equipment Description/ Registration Number [1] | Actual Emissions | | | Control Device ** | % Efficiency |
|---|---|---|---|---|---|
| | Tons/yr | Lbs/day | Lbs/hour | | |
| **2-24-0255 Boiler 1** | **.0041** | **.027** | **.0011** | **S/ESP** | |
| **2-24-0256 Boiler 2** | **.0032** | **.026** | **.0011** | **S/B** | |
| **2-24-0257 Boiler 3** | **.0027** | **.028** | **.0012** | **S/B** | |
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| TOTALS | **0.0100** | **0.081** | **0.0034** | | |

*Please attach all calculations.

*See Attachment 1 for the minimum reporting values

**Control Device
S = Scrubber
B = Baghouse
ESP =Electrostatic Precipitator
A = Afterburner
C = Condenser
AD = Adsorbtion
O = Other

[1] Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

**FORM 4:** **Calendar Year: 2022**

## TOXIC AIR POLLUTANTS

## EMISSIONS CERTIFICATION REPORT

Facility Name: **Wheelabrator Baltimore, L.P.** Facility ID: **24-510-01886** Pollutant: **Dioxins/Furans**

| Equipment Description/ Registration Number [1] | Actual Emissions | | | Control Device ** | % Efficiency |
|---|---|---|---|---|---|
| | Tons/yr | Lbs/day | Lbs/hour | | |
| **2-24-0255 Boiler 1** | **.000000520** | **.00000340** | **.000000146** | **S/ESP** | |
| **2-24-0256 Boiler 2** | **.000000250** | **.00000200** | **.000000084** | **S/B** | |
| **2-24-0257 Boiler 3** | **.000000210** | **.00000205** | **.000000089** | **S/B** | |
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| TOTALS | **.00000098** | **.00000745** | **.00000032** | | |

*Please attach all calculations.

*See Attachment 1 for the minimum reporting values

**Control Device
S = Scrubber
B = Baghouse
ESP =Electrostatic Precipitator
A = Afterburner
C = Condenser
AD = Adsorbtion
O = Other

[1] Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

**FORM 4:** **Calendar Year: 2022**

## TOXIC AIR POLLUTANTS

## EMISSIONS CERTIFICATION REPORT

Facility Name: **Wheelabrator Baltimore, L.P.** Facility ID: **24-510-01886** Pollutant: **Formaldehyde**

| Equipment Description/ Registration Number [1] | Actual Emissions | | | Control Device ** | % Efficiency |
|---|---|---|---|---|---|
| | Tons/yr | Lbs/day | Lbs/hour | | |
| **2-24-0255 Boiler 1** | **.5937** | **4.01** | **.167** | **S/ESP** | |
| **2-24-0256 Boiler 2** | **.4891** | **4.01** | **.167** | **S/B** | |
| **2-24-0257 Boiler 3** | **.3866** | **4.01** | **.167** | **S/B** | |
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| TOTALS | **1.4694** | **12.02** | **.501** | | |

*Please attach all calculations.

*See Attachment 1 for the minimum reporting values

**Control Device
S = Scrubber
B = Baghouse
ESP =Electrostatic Precipitator
A = Afterburner
C = Condenser
AD = Adsorbtion
O = Other

[1] Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

**FORM 4:** **Calendar Year: 2022**

## TOXIC AIR POLLUTANTS

## EMISSIONS CERTIFICATION REPORT

Facility Name: **Wheelabrator Baltimore, L.P.** Facility ID: **24-510-01886** Pollutant: **Hydrogen Chloride***

| Equipment Description/ Registration Number [1] | Actual Emissions | | | Control Device ** | % Efficiency |
|---|---|---|---|---|---|
| | Tons/yr | Lbs/day | Lbs/hour | | |
| **2-24-0255 Boiler 1** | **33.3** | **219.1** | **9.38** | **S/ESP** | |
| **2-24-0256 Boiler 2** | **6.1** | **49.2** | **2.08** | **S/B** | |
| **2-24-0257 Boiler 3** | **6.3** | **61.5** | **2.70** | **S/B** | |
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| TOTALS | **45.7** | **329.8** | **14.16** | | |

*Please attach all calculations.

*See Attachment 1 for the minimum reporting values

**Control Device
S = Scrubber
B = Baghouse
ESP = Electrostatic Precipitator
A = Afterburner
C = Condenser
AD = Adsorbtion
O = Other

[1] Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

**FORM 4:**

**Calendar Year: 2022**

## TOXIC AIR POLLUTANTS

## EMISSIONS CERTIFICATION REPORT

Facility Name: **Wheelabrator Baltimore, L.P.** Facility ID: **24-510-01886** Pollutant: **Hydrogen Fluoride***

| Equipment Description/ Registration Number [1] | Actual Emissions | | | Control Device ** | % Efficiency |
|---|---|---|---|---|---|
| | Tons/yr | Lbs/day | Lbs/hour | | |
| **2-24-0255 Boiler 1** | **0.18** | **1.18** | **.050** | **S/ESP** | |
| **2-24-0256 Boiler 2** | **0.15** | **1.21** | **.050** | **S/B** | |
| **2-24-0257 Boiler 3** | **0.16** | **1.56** | **.070** | **S/B** | |
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| TOTALS | **0.49** | **3.95** | **.170** | | |

*Please attach all calculations.

*See Attachment 1 for the minimum reporting values

**Control Device
S = Scrubber
B = Baghouse
ESP =Electrostatic Precipitator
A = Afterburner
C = Condenser
AD = Adsorbtion
O = Other

[1] Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

**FORM 4:** **Calendar Year: 2022**

## TOXIC AIR POLLUTANTS

## EMISSIONS CERTIFICATION REPORT

Facility Name: **Wheelabrator Baltimore, L.P.** Facility ID: **24-510-01886** Pollutant: **Manganese***

| Equipment Description/ Registration Number [1] | Actual Emissions | | | Control Device ** | % Efficiency |
|---|---|---|---|---|---|
| | Tons/yr | Lbs/day | Lbs/hour | | |
| **2-24-0255 Boiler 1** | **.0161** | **.109** | **.0045** | **S/ESP** | |
| **2-24-0256 Boiler 2** | **.0127** | **.104** | **.0043** | **S/B** | |
| **2-24-0257 Boiler 3** | **.0107** | **.111** | **.0046** | **S/B** | |
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| TOTALS | **.0395** | **.323** | **.0135** | | |

*Please attach all calculations.

*See Attachment 1 for the minimum reporting values

**Control Device
S = Scrubber
B = Baghouse
ESP = Electrostatic Precipitator
A = Afterburner
C = Condenser
AD = Adsorbtion
O = Other

[1] Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

**FORM 4:** **Calendar Year: 2022**

## TOXIC AIR POLLUTANTS

## EMISSIONS CERTIFICATION REPORT

Facility Name: **Wheelabrator Baltimore, L.P.** Facility ID: **24-510-01886** Pollutant: **Mercury***

| Equipment Description/ Registration Number [1] | Actual Emissions | | | Control Device ** | % Efficiency |
|---|---|---|---|---|---|
| | Tons/yr | Lbs/day | Lbs/hour | | |
| **2-24-0255 Boiler 1** | **.0028** | **.018** | **.000783** | **S/ESP** | |
| **2-24-0256 Boiler 2** | **.0003** | **.002** | **.000113** | **S/B** | |
| **2-24-0257 Boiler 3** | **.0004** | **.004** | **.000164** | **S/B** | |
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| TOTALS | **.0035** | **.024** | **.001060** | | |

*Please attach all calculations.

*See Attachment 1 for the minimum reporting values

**Control Device
S = Scrubber
B = Baghouse
ESP =Electrostatic Precipitator
A = Afterburner
C = Condenser
AD = Adsorbtion
O = Other

[1] Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

**FORM 4:** **Calendar Year: 2022**

## TOXIC AIR POLLUTANTS

## EMISSIONS CERTIFICATION REPORT

Facility Name: **Wheelabrator Baltimore, L.P.** Facility ID: **24-510-01886** Pollutant: **Nickel***

| Equipment Description/ Registration Number [1] | Actual Emissions | | | Control Device ** | % Efficiency |
|---|---|---|---|---|---|
| | Tons/yr | Lbs/day | Lbs/hour | | |
| **2-24-0255 Boiler 1** | **.0015** | **.0099** | **.000421** | **S/ESP** | |
| **2-24-0256 Boiler 2** | **.0012** | **.0097** | **.000426** | **S/B** | |
| **2-24-0257 Boiler 3** | **.0010** | **.0098** | **.000351** | **S/B** | |
| | | | | | |
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| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| TOTALS | **.0037** | **.0294** | **.00120** | | |

*Please attach all calculations.

*See Attachment 1 for the minimum reporting values

**Control Device
S = Scrubber
B = Baghouse
ESP =Electrostatic Precipitator
A = Afterburner
C = Condenser
AD = Adsorbtion
O = Other

[1] Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

**FORM 5**

Calendar Year: 2022

## BILLABLE TOXIC AIR POLLUTANTS

## EMISSIONS CERTIFICATION REPORT

Facility Name: **Wheelabrator Baltimore, L.P.** Facility ID#: **24-510-01886**

| Chemical Name | CAS Number | | Actual Emissions Tons/year | Lbs/day | Lbs/hr | | Estimation Method |
|---|---|---|---|---|---|---|---|
| carbon disulfide | 75-15-0 | S | | | | | |
| | | F | | | | | |
| carbonyl sulfide | 463-58-1 | S | | | | | |
| | | F | | | | | |
| chlorine | 7782-50-5 | S | | | | | |
| | | F | | | | | |
| cyanide compounds | 57-12-5 | S | | | | | |
| | | F | | | | | |
| hydrochloric acid | 7647-01-0 | S | 45.7 | 329.8 | 14.16 | | A1, C1 |
| | | F | | | | | |
| hydrogen fluoride | 7664-39-3 | S | 0.49 | 3.95 | 0.17 | | A1, C1 |
| | | F | | | | | |
| methyl chloroform | 71-55-6 | S | | | | | |
| | | F | | | | | |
| methylene chloride | 75-09-2 | S | | | | | |
| | | F | | | | | |
| perchloroethylene | 127-18-4 | S | | | | | |
| | | F | | | | | |
| phosphine | 7803-51-2 | S | | | | | |
| | | F | | | | | |
| titanium tetrachloride | 7550-45-0 | S | | | | | |
| | | F | | | | | |
| TOTALS | | | 46.19 | 333.75 | 14.33 | | |

S-Stack Emissions F-Fugitive Emission Daily emissions (lbs/day) are lbs/operating day of the source

PLEASE NOTE: Be sure to attach all data and calculations necessary to support the emissions figures shown above.

**See Attachment 1 for minimum reporting values**

**Emission Estimation Method**

A1-U.S. EPA Reference Method
A2-Other Particulate Sampling Train
A3-Liquid Absorption Technique
A4-Solid
A5-Freezing Out Technique
A9-Other, Specify

C1-User calculated based on source test or other measurement
C2-User calculated based on material balance using engineering knowledge of the process
C3-User calculated based on AP-42
C4-User calculated by best guess/engineering judgment
C5-User calculated based on a State or local agency factor
C6-New construction, not operational
C7-Source closed, operation ceased
C8-Computer calculated bsed on standards

This form to include only the eleven chemicals identified

**FORM 6: Greenhouse Gases** **Calendar Year: 2022**

## GREENHOUSE GAS AIR POLLUTANTS

## EMISSIONS CERTIFICATION REPORT

Facility Name: **Wheelabrator Baltimore** Facility ID: **24-510-01886** Pollutant: **Methane**

| Equipment Description/ Registration Number [1] | Actual Emissions | | |
|---|---|---|---|
| | Tons/yr | Lbs/day | Lbs/hour |
| **2-24-0255 Boiler 1** | **1.22** | **8.0** | **0.34** |
| **2-24-0256 Boiler 2** | **0.99** | **8.0** | **0.34** |
| **2-24-0257 Boiler 3** | **0.82** | **8.0** | **0.34** |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| TOTALS | **3.0** | **24.1** | **1.0** |
| | | | |

This form must be used to report Greenhouse gas emissions:

- carbon dioxide ($CO_2$)
- methane ($CH_4$)
- nitrous oxide ($N_2O$)
- hydrofluorocarbons (HFCs)
- perfluorocarbons (PFCs)
- sulfur hexafluoride ($SF_6$)

*Use a separate form for each pollutant.

*Please attach all calculations

[1] Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

**FORM 6: Greenhouse Gases** **Calendar Year: 2022**

## GREENHOUSE GAS AIR POLLUTANTS

## EMISSIONS CERTIFICATION REPORT

Facility Name: **Wheelabrator Baltimore** Facility ID: **24-510-01886** Pollutant: **Carbon Dioxide**

| Equipment Description/ Registration Number [1] | Actual Emissions | | |
|---|---|---|---|
| | Tons/yr | Lbs/day | Lbs/hour |
| **2-24-0255 Boiler 1** | **230,667** | **1,520,425** | **63,351** |
| **2-24-0256 Boiler 2** | **180,251** | **1,462,124** | **60,922** |
| **2-24-0257 Boiler 3** | **144,061** | **1,409,971** | **58,749** |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| TOTALS | **554,980** | **4,392,521** | **183,022** |

This form must be used to report Greenhouse gas emissions:

- carbon dioxide ($CO_2$)
- methane ($CH_4$)
- nitrous oxide ($N_2O$)
- hydrofluorocarbons (HFCs)
- perfluorocarbons (PFCs)
- sulfur hexafluoride ($SF_6$)

*Use a separate form for each pollutant.

*Please attach all calculations

[1] Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

**FORM 6: Greenhouse Gases**

**Calendar Year: 2022**

## GREENHOUSE GAS AIR POLLUTANTS

## EMISSIONS CERTIFICATION REPORT

Facility Name: **Wheelabrator Baltimore, L.P.** Facility ID: **24-510-01886** Pollutant: **Hydrofluorocarbons**

| Equipment Description/ Registration Number [1] | Actual Emissions | | |
|---|---|---|---|
| | Tons/yr | Lbs/day | Lbs/hour |
| **2-24-0255 Boiler 1** | **Not Emitted** | | |
| **2-24-0256 Boiler 2** | | | |
| **2-24-0257 Boiler 3** | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| TOTALS | 0 | 0 | 0 |

This form must be used to report Greenhouse gas emissions:

- carbon dioxide ($CO_2$)
- methane ($CH_4$)
- nitrous oxide ($N_2O$)
- hydrofluorocarbons (HFCs)
- perfluorocarbons (PFCs)
- sulfur hexafluoride ($SF_6$)

*Use a separate form for each pollutant.

*Please attach all calculations

[1] Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

**FORM 6: Greenhouse Gases**

**Calendar Year: 2022**

## GREENHOUSE GAS AIR POLLUTANTS

## EMISSIONS CERTIFICATION REPORT

Facility Name: **Wheelabrator Baltimore, L.P.** Facility ID: **24-510-01886** Pollutant: **Perfluorocarbons**

| Equipment Description/ Registration Number [1] | Actual Emissions | | |
|---|---|---|---|
| | Tons/yr | Lbs/day | Lbs/hour |
| **2-24-0255 Boiler 1** | **Not Emitted** | | |
| **2-24-0256 Boiler 2** | | | |
| **2-24-0257 Boiler 3** | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| TOTALS | **0** | **0** | **0** |

This form must be used to report Greenhouse gas emissions:

- carbon dioxide ($CO_2$)
- methane ($CH_4$)
- nitrous oxide ($N_2O$)
- hydrofluorocarbons (HFCs)
- perfluorocarbons (PFCs)
- sulfur hexafluoride ($SF_6$)

*Use a separate form for each pollutant.

*Please attach all calculations

[1] Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

**FORM 6: Greenhouse Gases**

**Calendar Year: 2022**

## GREENHOUSE GAS AIR POLLUTANTS

## EMISSIONS CERTIFICATION REPORT

Facility Name: **Wheelabrator Baltimore, L.P.** Facility ID: **24-510-01886** Pollutant: **Sulfur hexafluoride**

| Equipment Description/ Registration Number [1] | Actual Emissions | | |
|---|---|---|---|
| | Tons/yr | Lbs/day | Lbs/hour |
| **2-24-0255 Boiler 1** | **Not Emitted** | | |
| **2-24-0256 Boiler 2** | | | |
| **2-24-0257 Boiler 3** | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| TOTALS | **0** | **0** | **0** |

This form must be used to report Greenhouse gas emissions:

- carbon dioxide ($CO_2$)
- methane ($CH_4$)
- nitrous oxide ($N_2O$)
- hydrofluorocarbons (HFCs)
- perfluorocarbons (PFCs)
- sulfur hexafluoride ($SF_6$)

*Use a separate form for each pollutant.

*Please attach all calculations

[1] Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

**Wheelabrator Baltimore** — **Annual Emissions Calculations**

2022 Data Shaded

**Plant:** Wheelabrator Baltimore, LP

| | Unit 1 | Unit 2 | Unit 3 | Total | |
|---|---|---|---|---|---|
| Tons processed | 215,597 | 177,654 | 140,405 | 533,656 | Ops Stats |
| Total Operating Hours | 7,295 | 5,952 | 4,926 | 18,173 | Ops Stats |
| Annual Steam Flow Avg. | 187.1 | 189.0 | 180.5 | | Ops Stats |
| Stack test air flow (dscfm 7% O2)** | 77,904 | 74,681 | 79,243 | | Stack Test |
| Stack Test Steam Flow Average klb/hr | 192 | 192 | 192 | | Stack Test |
| Natural Gas Usage (Therms) | 19,733 | 16,260 | 12,851 | 48,844 | Ops Stats |

| Unit 1 | Unit 2 | Unit 3 |
|---|---|---|
| Equivalent Operating Days | | |
| 304 | 248 | 205 |

| Annual CEM Avg.-ppm 7% O2 | | | |
|---|---|---|---|
| SO2 (MW=64) | 27 | 29 | 30 | CEMS |
| NOx (MW=46) | 140 | 140 | 134 | CEMS |
| CO (MW=28) | 23 | 22 | 20 | CEMS |

| | Unit 1 | Unit 2 | Unit 3 | Plant |
|---|---|---|---|---|
| | lbs/hr | | | |
| SO2 (MW=64) | 20.89 | 21.88 | 23.61 | 66.38 |
| NOx (MW=46) | 77.90 | 74.84 | 76.12 | 228.86 |
| CO (MW=28) | 7.81 | 7.16 | 6.88 | 21.85 |

| | Unit 1 | Unit 2 | Unit 3 | Plant |
|---|---|---|---|---|
| | lbs/day | | | |
| SO2 (MW=64) | 489 | 517 | 534 | 1,540 |
| NOx (MW=46) | 1,822 | 1,768 | 1,719 | 5,309 |
| CO (MW=28) | 183 | 169 | 155 | 507 |

| | Unit 1 | Unit 2 | Unit 3 | Plant |
|---|---|---|---|---|
| | Tons per Year | | | |
| SO2 (MW=64) | 74.3 | 64.1 | 54.7 | 193.1 |
| NOx (MW=46) | 276.9 | 219.2 | 176.2 | 672.3 |
| CO (MW=28) | 27.8 | 21.0 | 15.9 | 64.7 |

| Stack Test Averages-ppm 7% O2 Outlet | | | | |
|---|---|---|---|---|
| HCl (MW=36.46) | 21.2 | 4.9 | 6.0 | Stack Test |
| HF (MW=20)*** | <0.20 | <0.20 | <0.30 | Stack Test |
| Dioxin ng/dscm 7%O2 | 0.50 | 0.30 | 0.30 | Stack Test |

| | | | HCl+HF= | 14.330 |
|---|---|---|---|---|
| | lbs/hr | | | |
| HCl (MW=36.46) | 9.38 | 2.08 | 2.70 | 14.16 |
| HF (MW=20)*** | 0.050 | 0.050 | 0.070 | 0.170 |
| | lbs/hr | | | |
| Dioxin ng/dscm 7%O2 | 1.46E-07 | 8.40E-08 | 8.90E-08 | 3.19E-07 |

| | | | HCl+HF= | 333.75 |
|---|---|---|---|---|
| | lbs/day | | | |
| HCl (MW=36.46) | 219.1 | 49.2 | 61.5 | 329.8 |
| HF (MW=20)*** | 1.18 | 1.21 | 1.56 | 3.95 |
| | lbs/day | | | |
| Dioxin ng/dscm 7%O2 | 3.40E-06 | 2.00E-06 | 2.05E-06 | 7.45E-06 |

| | | | HCl+HF= | 46.19 |
|---|---|---|---|---|
| | Tons per Year | | | |
| HCl (MW=36.46) | 33.3 | 6.1 | 6.3 | 45.7 |
| HF (MW=20)*** | 0.18 | 0.15 | 0.16 | 0.49 |
| | Tons per Year | | | |
| Dioxin ng/dscm 7%O2 | 5.20E-07 | 2.50E-07 | 2.10E-07 | 9.80E-07 |

| | | | | |
|---|---|---|---|---|
| PM Steam flow Avg klb/hr | 192 | 192 | 192 | Stack Test |
| PM/PM10 (filterable)- lbs/hr | 0.22 | 1.35 | 1.28 | Stack Test |
| PM (condensable) - lbs/hr | 2.1 | 4.5 | 2.1 | Stack Test |
| VOC lbs/hr** | 0.066 | 0.00 | 0.14 | Stack Test |

| | | | |
|---|---|---|---|
| | lbs/day | | |
| PM Steam flow Avg klb/hr | 5.3 | 32.3 | 29.3 | 66.8 |
| PM/PM10 (filterable)- lbs/hr | 49.3 | 106.5 | 47.8 | 203.6 |
| PM (condensable) - lbs/hr | 1.3 | 0.0 | 2.9 | 4.3 |

| | | | |
|---|---|---|---|
| | Tons per Year | | |
| PM Steam flow Avg klb/hr | 0.8 | 4.0 | 3.0 | 7.8 |
| PM/PM10 (filterable)- lbs/hr | 7.5 | 13.2 | 4.9 | 25.6 |
| PM (condensable) - lbs/hr | 0.2 | 0.0 | 0.3 | 0.5 |

| | | | | | |
|---|---|---|---|---|---|
| Metals Steam flow Avg. klb/hr | 192 | 192 | 192 | Plant | Stack Test |
| Cadmium - lbs/hr | 1.39E-04 | 2.59E-04 | 3.67E-04 | 0.000765 | Stack Test |
| Lead - lbs/hr | 2.13E-03 | 3.44E-03 | 4.14E-03 | 0.009710 | Stack Test |
| Mercury - lbs/hr | 7.83E-04 | 1.13E-04 | 1.64E-04 | 0.001060 | Stack Test |

| | | | | |
|---|---|---|---|---|
| | lbs/day | | | |
| Metals Steam flow Avg. klb/hr | 0.003 | 0.006 | 0.008 | 0.017 |
| Cadmium - lbs/hr | 0.050 | 0.081 | 0.094 | 0.225 |
| Lead - lbs/hr | 0.018 | 0.002 | 0.004 | 0.024 |
| Mercury - lbs/hr | | | | |

| | | | |
|---|---|---|---|
| | Tons per Year | | |
| Metals Steam flow Avg. klb/hr | 0.0005 | 0.0008 | 0.0008 | 0.0021 |
| Cadmium - lbs/hr | 0.0076 | 0.0101 | 0.0096 | 0.0273 |
| Lead - lbs/hr | 0.0028 | 0.0003 | 0.0004 | 0.0035 |
| Mercury - lbs/hr | | | | |

| Other metals - Stack Test | | | | Plant | |
|---|---|---|---|---|---|
| Arsenic - lbs/hr | 7.62E-05 | 6.01E-05 | 1.60E-04 | 0.00030 | Stack Test |
| Chromium - lbs/hr | 7.85E-04 | 3.58E-04 | 5.39E-04 | 0.00168 | Stack Test |
| Nickel - lbs/hr | 4.21E-04 | 4.26E-04 | 3.51E-04 | 0.00120 | Stack Test |

| | | | |
|---|---|---|---|
| | lbs/day | | |
| Arsenic - lbs/hr | 0.0020 | 0.0016 | 0.0039 | 0.0075 |
| Chromium - lbs/hr | 0.0184 | 0.0081 | 0.0078 | 0.0343 |
| Nickel - lbs/hr | 0.0099 | 0.0097 | 0.0098 | 0.0294 |

| | | | |
|---|---|---|---|
| | Tons per Year | | |
| Arsenic - lbs/hr | 0.0003 | 0.0002 | 0.0004 | 0.0009 |
| Chromium - lbs/hr | 0.0028 | 0.0010 | 0.0008 | 0.0046 |
| Nickel - lbs/hr | 0.0015 | 0.0012 | 0.0010 | 0.0037 |

| Others | | | | Plant | | | | Plant |
|---|---|---|---|---|---|---|---|---|
| Copper - ug/dscm7% | 3.91 | 3.91 | 3.91 | 11.730 | 0.0011 | 0.0011 | 0.0012 | 3.40E-03 |
| Formaldehyde - lbs/hr | 0.167 | 0.167 | 0.167 | 0.501 | | | | |
| Manganese - ug/dscm7% | 15.52 | 15.52 | 15.52 | 46.560 | 0.0045 | 0.0043 | 0.0046 | 1.35E-02 |

| | | | |
|---|---|---|---|
| | lbs/day | | |
| Copper - ug/dscm7% | 0.027 | 0.026 | 0.028 | 0.081 |
| Formaldehyde - lbs/hr | 4.01 | 4.01 | 4.01 | 12.02 |
| Manganese - ug/dscm7% | 0.109 | 0.104 | 0.111 | 0.323 |

| | | | |
|---|---|---|---|
| | Tons per Year | | |
| Copper - ug/dscm7% | 0.0041 | 0.0032 | 0.0027 | 0.0100 |
| Formaldehyde - lbs/hr | 0.5937 | 0.4891 | 0.3866 | 1.4694 |
| Manganese - ug/dscm7% | 0.0161 | 0.0127 | 0.0107 | 0.0395 |

**Others**

Cu Millbury 2019-22
Formaldy. 1988 TAP Submittal
Mn-Millbury 2019-22

**Example Calculations:**

CEM and Stack Test ppm @ 7% O2 Pollutants: lbs/hr = (ppm@7%O2/1000000)*(Airflow*(20.9-O2%)/13.9)*60*(Mol. Wt./385.3) where Airflow = Stack Test value

Dioxin ng/dscm @ 7% O2: lbs/hr = (ng/dscm@7%O2)*(Airflow*(20.9-O2%)/13.9)*60/(453.59E9ng/lb*35.31Scf/cm) where Airflow = Stack Test value

Stack Test lb/hr Pollutants: lbs/hr = Stack Test Value

tons/year = lbs/hr*Operating Hours*(Annual Steam Flow Avg/Stack Test Steam Flow)/2000

lbs/day = (tons/yr) * (2000 lb/ton) / Operating days

## Wheelabrator Data for Mandatory GHG Reporting

**Plant Name** Wheelabrator Baltimore L.P.

### Subpart A: General Reporting Requirements

| 98.3(c) | Plant Address | | Year and months covered by the report | Date of Submittal |
|---|---|---|---|---|
| | 1801 Anapolis Road<br>Baltimore, MD | 21230-3108 | January to December<br>2022 | |

| 98.3(c)(3) | Plant NAICS Number | Parent Company and Address | Longitude | Latitude |
|---|---|---|---|---|
| | 562213 | MIP IV Boomerang Holdings, LLC<br>125 W 55th Street, Level 15<br>New York, NY 10019 | | |

| 98.3(c)(4) | Annual GHG emissions in metric tons of $CO_2e$ (includes fossil $CO_2$, $CH_4$, $N_2O$) | Annual emissions of biogenic $CO_2$ from all units in metric tons | Annual emissions of the following GHGs in metric tons from all units: | | Do emissions include emissions from a cogeneration unit at the facility? | Does your facility report under subpart C or D and have a plant code (as defined in §98.6)? | |
|---|---|---|---|---|---|---|---|
| | | | Biogenic $CO_2$ | 302,556 | | | |
| | | | Non-biogenic $CO_2$ | 201,704 | | | |
| | 213,350 | 302,556 | $CH_4$ | 181.6 | no | no | 504,261 |
| | | | $N_2O$ | 23.8 | | | |

| 98.3(c)(6) | Did you change emission calculation methodologies during the year? | If so, describe what you did and why: | |
|---|---|---|---|
| | no | | |

| 98.3(c)(7) | Did you follow monitoring and recordkeeping requirements all year? | Did you have periods when data were missing and substitutes were used? | If so, list missing parameters and the number of hours for which substitutes were used | | Unit 1 Hours | Unit 1 Value | Unit 2 Hours | Unit 2 Value | Unit 3 Hours | Unit 3 Value | Total Sub Hours Unit 1 | Total Sub Hours Unit 2 | Total Sub Hours Unit 3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | yes | yes | $CO_2$ % | Q1 | 8 | 8.9 | 11 | 9.3 | 75 | 9.5 | 17 | 23 | 92 |
| | | | | Q2 | 4 | | 3 | | 0 | | | | |
| | | | | Q3 | 3 | | 4 | | 16 | | | | |
| | | | | Q4 | 2 | | 5 | | 1 | | | | |
| | | | Stack Flow | Q1 | 1558 | HI Calc | 1385 | HI Calc | 1163 | HI Calc | 4035 | 3632 | 4552 |
| | | | | Q2 | 421 | | 679 | | 0 | | | | |
| | | | | Q3 | 346 | | 299 | | 1763 | | | | |
| | | | | Q4 | 1710 | | 1269 | | 1626 | | | | |
| | | | Moisture % | Q1 | 8 | 19 | 11 | 19.2 | 75 | 17.6 | 16 | 20 | 87 |
| | | | | Q2 | 3 | | 2 | | 0 | | | | |
| | | | | Q3 | 3 | | 4 | | 11 | | | | |
| | | | | Q4 | 2 | | 3 | | 1 | | | | |

### Subpart C: General Stationary Fuel Combustion Sources

| 98.36(e)(2)(i)(D) | Quantity of steam in pounds produced from MSW combustion during the year per unit | | Ratio of maximum heat input capacity to design-rated steam output capacity (mmbtu/lb) | | Quarterly Biogenic Carbon Sampling Results | |
|---|---|---|---|---|---|---|
| | Unit ID | Total Steam (lbs) | Unit ID | Ratio | Quarter | Biogenic Fraction |
| | 1 | 1,365,099,520 | 1 | 0.00168 | 1 | 0.57 |
| | 2 | 1,124,657,400 | 2 | 0.00168 | 2 | 0.59 |
| | 3 | 888,972,700 | 3 | 0.00168 | 3 | 0.60 |
| | | | | | 4 | 0.64 |
| | | | | | Average | 0.60 |

| Natural gas common pipe usage in **THERMS** and per unit usage (relative to unit steam) | | mmBtu | Total Steam (mmbtu) |
|---|---|---|---|
| Common Pipe | 50,211 | 5,126.5 | |
| Unit 1 | 20,286 | 2028.646 | 2,293,367 |
| Unit 2 | 16,713 | 1707.098 | 1,889,424 |
| Unit 3 | 13,211 | 1349.356 | 1,493,474 |

| Table C-1 and C-2 Data | | | |
|---|---|---|---|
| Fuel | MSW | Natural Gas | |
| $CO_2$ EF | 90.7 | 53.06 | kg $CO_2$/mmBtu |
| $CH_4$ EF | 0.032 | 0.001 | kg $CH_4$/mmBtu |
| $N_2O$ EF | 0.0042 | 0.0001 | kg $N_2O$/mmBtu |

| Table A-1 Data | |
|---|---|
| Gas | GWP (100 yr.) |
| $CO_2$ | 1 |
| $CH_4$ | 25 |
| $N_2O$ | 298 |

*updated beginning January 1, 2013*
*updated beginning January 1, 2013*

### Tier 4 Calculations

*Input from CEMS data

| $CO_2$ Emission Data | | | | |
|---|---|---|---|---|
| Unit ID | Unit 1 | Unit 2 | Unit 3 | |
| Type | MWC | MWC | MWC | |
| Fuels Combusted | MSW, NG | MSW, NG | MSW, NG | |
| Max Throughput | 750 | 750 | 750 | tons/day |
| Tier | 4 | 4 | 4 | |
| Methodology Start Date | 1/1/2022 | 1/1/2022 | 1/1/2022 | |
| Methodology End Date | 12/31/2022 | 12/31/2022 | 12/31/2022 | |
| Operating Hours (opstats) | 7,282 | 5,917 | 4,904 | hours |
| Fossil $CO_2$ | 83,836 | 65,511 | 52,358 | metric tons |
| Biogenic $CO_2$ | 125,754 | 98,266 | 78,537 | metric tons |
| Total Q1 $CO_2$* | 46,454 | 46,359 | 28,800 | metric tons |
| Total Q2 $CO_2$* | 48,236 | 33,539 | 0 | metric tons |
| Total Q3 $CO_2$* | 65,497 | 19,541 | 52,230 | metric tons |
| Total Q4 $CO_2$* | 45,404 | 38,338 | 49,885 | metric tons |
| Total CO2 | 209,590 | 163,776 | 130,895 | metric tons |

| Annual Certification Statement CO2 | | | | | |
|---|---|---|---|---|---|
| Nat Gas CO2 | 108 | 89 | 70 | metric tons | |
| Total | 209,697 | 163,865 | 130,965 | metric tons | Facility |
| Total CO2 | 230,667 | 180,251 | 144,061 | tons/year | 554,980 |
| lbs/hr | 63,351 | 60,922 | 58,749 | lbs/hr | 183,022 |
| lbs/day | 1,520,425 | 1,462,124 | 1,409,971 | lbs/day | 4,392,521 |

| Annual Certification Statement CH4 | | | | | |
|---|---|---|---|---|---|
| tons/yr | 1.220 | 0.991 | 0.821 | tons/yr | 3.0 |
| lbs/hr* | 0.335 | 0.335 | 0.335 | lbs/hr | 1.0 |
| lbs/day | 8.040 | 8.040 | 8.040 | lbs/day | 24.1 |

* lbs/hr from most recent stack test/Apr2013

| Annual Certification Statement N2O | | | | | |
|---|---|---|---|---|---|
| Total N2O | 9.6 | 7.9 | 6.3 | metric tons | |
| tons/yr | 10.6 | 8.7 | 6.9 | tons/year | 26.2 |
| lbs/hr | 2.910 | 2.950 | 2.814 | lbs/hr | 8.674 |
| lbs/day | 69.84 | 70.81 | 67.53 | lbs/day | 208.181 |

| $CH_4$ and $N_2O$ Emission Data--Municipal Solid Waste | | | | | |
|---|---|---|---|---|---|
| Unit ID | Unit 1 | Unit 2 | Unit 3 | | |
| $CH_4$ Emissions | 73.4 | 60.5 | 47.8 | metric tons | |
| $N_2O$ Emissions | 9.6 | 7.9 | 6.3 | metric tons | |
| $CH_4$ ($CO_2e$) | 1,834.7 | 1,511.5 | 1,194.8 | metric tons | 4,541.0 |
| $N_2O$ ($CO_2e$) | 2,870.4 | 2,364.8 | 1,869.2 | metric tons | 7,104.4 |

| $CH_4$ and $N_2O$ Emission Data--Natural Gas | | | | | |
|---|---|---|---|---|---|
| Unit ID | Unit 1 | Unit 2 | Unit 3 | | 18,104.0 |
| NG Usage | 20,286 | 16,713 | 13,211 | therms | 201,704.3 |
| CO2 Emissions | 107.640 | 88.681 | 70.097 | metric tons | 302,556.4 |
| $CH_4$ Emissions | 0.00203 | 0.00167 | 0.00132 | metric tons | |
| $N_2O$ Emissions | 0.00020 | 0.00017 | 0.00013 | metric tons | |
| $CH_4$ ($CO_2e$) | 0.05 | 0.04 | 0.03 | metric tons | |
| $N_2O$ ($CO_2e$) | 0.06 | 0.05 | 0.04 | metric tons | |

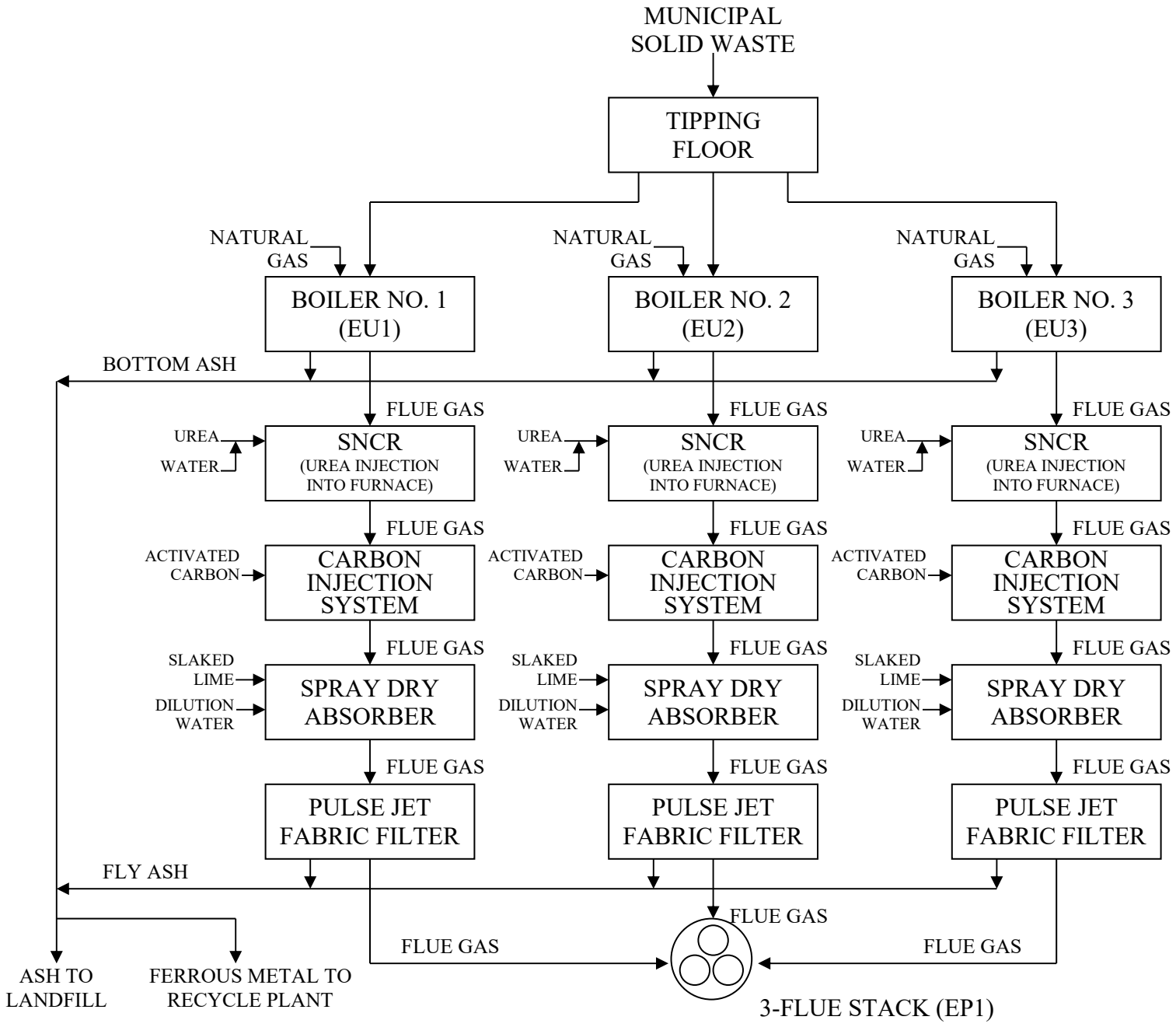
504,260.7

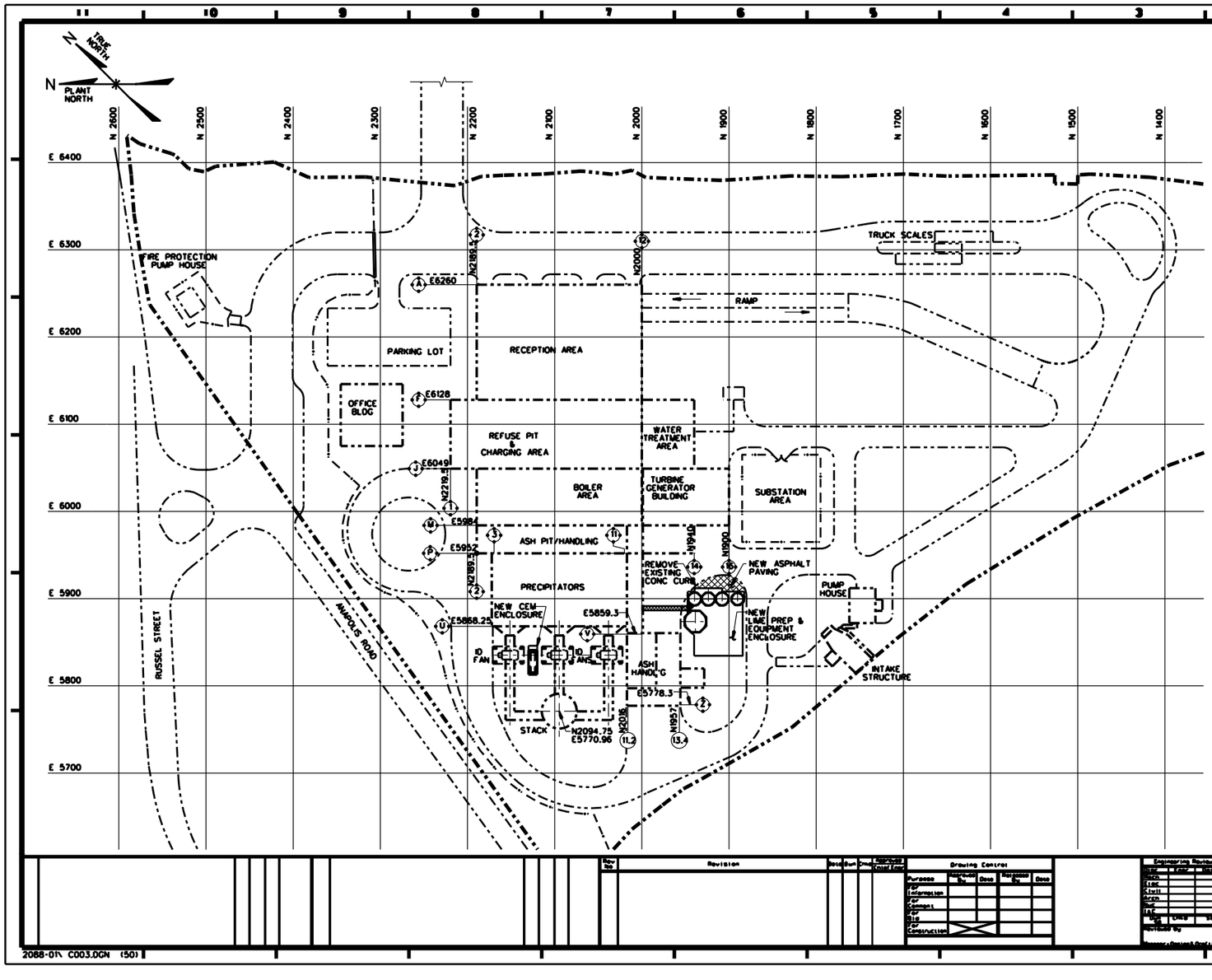
# PART 70 PERMIT APPLICATION FOR RENEWAL OF WHEELABRATOR BALTIMORE, L.P. PERMIT NO. 24-510-01886

FACILITY FIGURES

**October 2023**

**WHEELABRATOR BALTIMORE, L.P. PROCESS FLOW DIAGRAM**






## GENERAL SITE NOTES:

## REFERENCE DRAWINGS

C005 SITE GRADING PLAN
C007 SITE SECTIONS AND DETAILS
C014 SOIL EROSION AND SEDIMENT CONTROL PLAN
C015 SOIL EROSION AND SEDIMENT CONTROL DETAILS SHEET 1

## EXIST RUST REFERENCE DWGS:

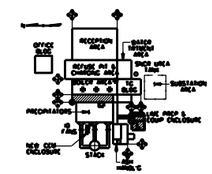
01-32-221 THRU 01-32-234 AREA LAYOUT PLANS

## LEGEND

- EXISTING FENCE
- EXISTING ROAD
- NEW ROAD/MODIFIED EXIST ROAD
- PROPERTY LINE
- OUTLINE OF STRUCTURES

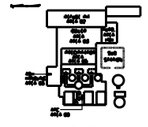
## GRAPHIC SCALE

0 25 50 100 150
1" =50'-0"



KEY PLAN
FOR GO 2088-01

© ELECTRICAL MANHOLE



KEY PLAN

Wheelabrator Air Pollution Control

BECHTEL POWER CO.
ANN ARBOR, MICHIGAN
BECHTEL CORPORATION
SAN FRANCISCO, CALIFORNIA

PLANT AREA PLOT PLAN

BURNS AND ROE ENTERPRISES, INC.
Engineers and Constructors - Oradell, NJ

Approved for Construction

Item Group: 2088 | Drawing No: 09-C003 | Rev: A

2088-01\ C003.DGN (50)

| Rev No | Revision | Description | Drawn | Date | Approved Engr'g Supervisor |
|---|---|---|---|---|---|
| A | ISSUED FOR CLIENT REVIEW | | | | SB |

Drawing Control

| Purpose | Approved Dwg No | Date | Released Dwg No | Date |
|---|---|---|---|---|
| Preliminary Information | | | | |
| Bid Proposal | | | | |
| Contract | | | | |
| Shop Fabrication | | | | |
| Field Construction | | | | |

Engineering Review

| Discipline | Name | Initials |
|---|---|---|
| Mech | | |
| Elec | | |
| Civil | | |
| Arch | | |
| Struct | | |
| I&C | | |
| Proj Engr | Date | |

# PART 70 PERMIT APPLICATION FOR RENEWAL OF WHEELABRATOR BALTIMORE, L.P. PERMIT NO. 24-510-01886

CAM PLAN APPLICABILITY

**October 2023**

## Introduction

Compliance Assurance Monitoring (CAM), codified in 40 Code of Federal Regulations (CFR) 64, applies to sources that rely on pollution control equipment to achieve compliance. CAM requires these sources to select monitorable parameters that document proper operation and maintenance of their pollution control equipment. CAM also requires sources to utilize the selected monitorable parameters to identify when pollution control equipment is malfunctioning, so actions can be taken to reduce emission excursions.

Wheelabrator Baltimore, L.P. consists of three municipal waste combustors (MWCs) that generate steam. A portion of the steam produced is sold to a steam distribution system and a portion is used to produce electricity. Other sources at the facility include insignificant activities listed in Section III, Check-off List of Emissions Units and Activities, in the Part 70 Permit Application.

Based on the following applicability analysis the sources at Wheelabrator Baltimore, L.P. are not applicable to CAM and a CAM Plan is not required.

## Control Devices

The MWCs are equipped with selective non-catalytic reduction (SNCR) systems to control nitrogen oxides ($NO_X$) emissions, activated carbon injection (ACI) systems to control mercury (Hg) emissions, spray dry absorbers (SDA) to control acid gas [sulfur dioxide ($SO_2$) and hydrogen chloride (HCl)] emissions, and fabric filters (FF) to control particulate matter (PM) and metals emissions. Carbon monoxide (CO) emissions are not controlled by add-on pollution control equipment. CO control is accomplished by maintaining good combustion, which is not applicable to CAM requirements [40 CFR 64.2(a)(2).]

Insignificant activities with add-on pollution control devices include three lime storage silos, equipped with a common bin vent filter; one activated carbon storage silo, equipped with a bin vent bag filter; three ash handling area vents (ash handling area vent, ash loadout area vent, and ash trommel area vent), equipped with wet scrubbers. The storage silos and ash area vents have uncontrolled potential PM emissions less than 100 tons per year (TPY), the major source threshold, and are not applicable to CAM [40 CFR 64.2(a)(3).] Other insignificant activities, in addition to having emissions less than 100 TPY, do not have add-on pollution control equipment and are therefore not applicable to CAM [40 CFR 64.2(a)(2).]

## Emission Limitations

The MWCs are subject to NSPS Subpart Cb emission limitations [adopted at Code of Maryland Regulations (COMAR) 26.11.08.08A(2).] These emission limitations are included in the current Title V Permit as Condition IV-1.1A and Table IV-1A. NSPS Subpart Cb was promulgated after 1990 and these emission limitations are exempt from CAM requirements [40 CFR 64.2(b)(1)(i).]

The original PSD Permit emission limitations for $SO_2$, CO, $NO_X$, and fluorides are included in the current Title V permit as Condition IV.1.1C. The Title V permit specifies a continuous compliance determination method for the $SO_2$, CO, and $NO_X$ PSD Permit emission limitations based on Continuous Emission Monitoring System (CEMS) data on an 8-hour average basis as described at Condition IV-1.3. Since these PSD Permit emission limitations require continuous

compliance using CEMS, these limits are exempt from CAM [40 CFR 64.2(b)(1)(vi).] CAM does not apply to the PSD Permit $SO_2$ and fluoride emission limitations since these limits are based on no controls [40 CFR 64.2(a)(2)] and annual emissions are less than the 100 TPY major source threshold [40 CFR 64.2(a)(3).]

Insignificant activities do not have specific emission limits and CAM does not apply [40 CFR 64.2(a)(1).]

**CAM Applicability Summary**

Based on this CAM Plan Applicability determination, a CAM Plan is not required. The various exemptions are discussed below and summarized in the attached table.

Subpart Cb emission limitations, as approved under COMAR 26.11.08.08A(2), were promulgated after 1990 and are exempt from CAM [40 CFR 64.2(b)(1)(i).] The Title V Permit requires that PSD CO, $SO_2$, and $NO_X$ emission limits maintain continuous compliance using CEMS and are thus exempt from CAM [40 CFR 64.2(b)(1)(vi).] In addition, $SO_2$ and fluoride PSD Permit emission limitations are based on no control [40 CFR 64.2(a)(2)] and annual emissions are less than major source thresholds [40 CFR 64.2(a)(3)], therefore CAM does not apply.

Insignificant activities are not subject to CAM. These sources have no specific permit emission limitation [40 CFR 64.2(a)(1)] and have uncontrolled emissions less than major source thresholds [40 CFR 64.2(a)(3).] In addition, many insignificant activities do not utilize pollution control devices [40 CFR 64.2(a)(2).]

# Wheelabrator Baltimore, L.P.
# CAM Plan Applicability



**CAM Applicability Determination Wheelabrator Baltimore, L.P.**

| Emission Source | Title V EU ID | Pollutants with Permitted Emission Limits | Applicable Control Device(s) | Permit Limit | NSPS Subpart Cb Limit (Y/N) | Uncontrolled Emissions (TPY) | Exempt from CAM (Yes/No) | Basis for CAM Not Applicable or CAM Exemption |
|---|---|---|---|---|---|---|---|---|
| **NSPS Subpart Cb Emission Limitations effective April 28, 2009** | | | | | | | | |
| Boiler No. 1<br>Boiler No. 2<br>Boiler No. 3 | EU1<br>EU2<br>EU3 | PM | FF | 25 mg/dscm@7%O2 | Y | NA | Yes | • Post 1990 Standard [40 CFR 64.2 (b)(1)(i)], Permit Limit Equivalent to Cb Limit. |
| | | Cadmium | FF | 0.035 mg/dscm@7%O2 | Y | NA | Yes | • Post 1990 Standard [40 CFR 64.2 (b)(1)(i)], Permit Limit Equivalent to Cb Limit. |
| | | Lead | FF | 0.40 mg/dscm@7%O2 | Y | NA | Yes | • Post 1990 Standard [40 CFR 64.2 (b)(1)(i)], Permit Limit Equivalent to Cb Limit. |
| | | Mercury | ACI/FF | 0.050 mg/dscm@7%O2 or 85% removal | Y | NA | Yes | • Post 1990 Standard [40 CFR 64.2 (b)(1)(i)], Permit Limit Equivalent to Cb Limit. |
| | | SO2 | SDA/FF | 29 ppmvd@7%O2 or 75% removal | Y | NA | Yes | • Post 1990 Standard [40 CFR 64.2 (b)(1)(i)], Permit Limit Equivalent to Cb Limit. |
| | | HCl | SDA/FF | 29 ppmvd@7%O2 or 95% removal | Y | NA | Yes | • Post 1990 Standard [40 CFR 64.2 (b)(1)(i)], Permit Limit Equivalent to Cb Limit. |
| | | Dioxin/Furan | SDA/FF | 30 ng/dscm@7%O2 | Y | NA | Yes | • Post 1990 Standard [40 CFR 64.2 (b)(1)(i)], Permit Limit Equivalent to Cb Limit. |
| | | NOx | ASNCR | 205 ppmvd@7%O2 | Y | NA | Yes | • Post 1990 Standard [40 CFR 64.2 (b)(1)(i)], Permit Limit Equivalent to Cb Limit. |
| | | CO | None | 100 ppmvd@7%O2 | Y | NA | Yes | • Post 1990 Standard [40 CFR 64.2 (b)(1)(i)], Permit Limit Equivalent to Cb Limit as approved under COMAR 26.11.08.08A(2). |
| **PSD Permit Emission Limitations (lb/hr and TPY emission limitations are for all three boilers combined)** | | | | | | | | |
| Boiler No. 1<br>Boiler No. 2<br>Boiler No. 3 | EU1<br>EU2<br>EU3 | SO2 | None | 375 lbs/hr and 1478 TPY | N | NA | Yes | • No Control Device [40 CFR 64.2(a)(2)], PSD Permit reflected FF control only.<br>• Title V Permit specifies an continuous compliance determination method using CEMS data [40 CFR 64.2(b)(1)(vi)]. |
| | | CO | None | 121 lbs/hr and 477 TPY | N | NA | Yes | • No Control Device [40 CFR 64.2(a)(2)], PSD Permit reflected FF control only.<br>• Title V Permit specifies an continuous compliance determination method using CEMS data [40 CFR 64.2(b)(1)(vi)]. |
| | | NOx | None | 298 lbs/hr and 1176 TPY | N | NA | Yes | • Title V Permit specifies a continuous compliance determination method using CEMS data [40 CFR 64.2(b)(1)(vi)]. |
| | | Fluorides | None | 12 lbs/hr and 47 TPY | N | 47 | Yes | • No Control Device [40 CFR 64.2(a)(2)], PSD Permit reflected FF control only.<br>• Emissions less than major source threshold [40 CFR 64.2(a)(3)]. |
| **Other Sources (Insignificant Activities)** | | | | | | | | |
| Lime Silos | N/A | None | FF | None | N | 0.73 | Yes | • No Emission Limitation [40 CFR 64.2(a)(1)] for insignificant activities.<br>• Uncontrolled Emissions less than major source threshold [40 CFR 64.2(a)(3)]. |
| Carbon Silo | N/A | None | FF | None | N | 0.03 | Yes | |
| Ash Handling Area | N/A | None | WS | None | N | <1.0 | Yes | |
| Ash Loadout Area | N/A | None | WS | None | N | <1.0 | Yes | |
| Ash Trommel Area | N/A | None | WS | None | N | <1.0 | Yes | |
| Other Insignificant Activities | N/A | None | None | None | N | <1.0 | Yes | • No Emission Limitation [40 CFR 64.2(a)(1)] for insignificant activities.<br>• No Control Device [40 CFR 64.2(a)(2)].<br>• Uncontrolled Emissions less than major source threshold [40 CFR 64.2(a)(3)]. |

Legend: ACI = activated carbon injection; SDA = spray dryer absorber; ASNCR = advanced selective non-catalytic reduction; FF = fabric filter; WS = wet scrubber

# PART 70 PERMIT APPLICATION FOR RENEWAL OF WHEELABRATOR BALTIMORE, L.P. PERMIT NO. 24-510-01886

FEIN FORM

**October 2023**

# MARYLAND DEPARTMENT OF THE ENVIRONMENT

1800 Washington Boulevard • Suite 720 • Baltimore, Maryland 21230-1720
410-537-3000 • 800-633-6101 • http://www.mde.state.md.us

Air and Radiation Management Administration • Air Quality Permits Program

**Budget Reconciliation and Financing Act of 2003**
**(Commonly referred as Maryland House Bill 935)**

On July 1, 2003, House Bill 935, Chapter 203 amended § 1-203 of the Environment Article, Annotated Code of Maryland, as follows:

Section 1-203(b).
(1) A license or permit is considered renewed for purposes of this subsection if the license or permit is issued by a unit of State government to a person for the period immediately following a period for which the person previously possessed the same or a substantially similar license.
(2) Before any license or permit may be renewed under this article, **the issuing authority shall verify through the office of the Comptroller (emphasis added)** that the applicant has paid all undisputed taxes and the unemployment insurance contributions payable to the Comptroller or the Secretary of Labor, Licensing, and Regulation or that the applicant has provided for payment in a manner satisfactory to the unit responsible for collection.

In order for the Maryland Department of the Environment (MDE) to verify this compliance, we would need you to provide the following information before we can process or issue your renewal license, permit, or certification:

**Current MDE License/Permit No.:** Part 70 Operating Permit No. 24-510-01886

**Name of Licensee or Permit Holder:** Wheelabrator Baltimore, L.P.

**Address:** 1801 Annapolis Road
Baltimore, MD 21230

**Contact Name:** Jim Robertson **Title:** Interim Environmental Manager

**Contact Telephone Number:** (410) 234-0808 x212

**Privacy Act Notice:** This Notice is provided pursuant to the Federal Privacy Act of 1974, 5 U.S.C. § 552a. Disclosure of your Social Security or Federal Tax Identification on this form is mandatory pursuant to the provisions of § 1-203 (2003) of Environment Article, Annotated Code of Maryland, which requires MDE to verify that an applicant for a permit or license has paid all undisputed taxes and unemployment insurance. Social Security and Federal Tax Identification Nos. will not be used for any purposes other than those described in this Notice.

**Federal Employer Identification Number (FEIN):** 36 – 4057307

*Certification: I certify that the above information is true and correct to the best of my knowledge.*

Signature **Jim Robertson, Plant Manager** Date 10/17/2023

***Complete and return this form to Jeanette Wolfe at the above address. If you have any questions, please contact Ms. Wolfe at (410) 537-4417.***

# PART 70 PERMIT APPLICATION FOR RENEWAL OF WHEELABRATOR BALTIMORE, L.P. PERMIT NO. 24-510-01886

DIESEL GENERATOR APPLICABLE REQUIREMENTS

**October 2023**

**Description**
Cummins N-855-F Diesel Engine (fire pump)
rated at 240 BHP at 2100 RPM
Manufacture Date: 10-83

The installation is subject to the following requirements:

(A) COMAR 26.11.09.05E(2), Emissions During Idle Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.

(B) COMAR 26.11.09.05E(3), Emissions During Operating Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.

(C) Exceptions:

(i) COMAR 26.11.09.05E (2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system.

(ii) COMAR 26.11.09.05E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:

(a) Engines that are idled continuously when not in service: 30 minutes,

(b) all other engines: 15 minutes.

(iii) COMAR 26.11.09.05E(2) & (3) do not apply while maintenance, repair or testing is being performed by qualified mechanics.

(D) Requirements from 40 CFR part 63, subpart ZZZZ:

Operation and Maintenance Requirements

§ 63.6602 For an existing emergency stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions, the Permittee must comply with the requirements in item 1 of Table 2c to 40 CFR part 63, subpart ZZZZ as follows:

1. Change oil and filter every 500 hours of operation or annually, whichever comes first.

2. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary;

3. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

4. Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

5. The Permittee may petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

§ 63.6605(a) requires that the Permittee be in compliance with the applicable requirements in 40 CFR part 63, subpart ZZZZ at all times.

§ 63.6605(b) requires the Permittee to operate and maintain at all times any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

§ 63.6625(e)(2) The Permittee must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:

§ 63.6625(f) requires the Permittee to install a non-resettable hour meter if one is not already installed.

§ 63.6640(a) The Permittee must demonstrate continuous compliance with each applicable requirement in Table 2c to 40 CFR part 63, subpart ZZZZ according to methods specified in Table 6 to this subpart.

Table 6, item 9 (existing emergency stationary RICE ≤500 HP located at a major source of HAPs) specifies that the Permittee must operate and maintain the fire pump engine according to the manufacturer's emission-related operation and maintenance instructions or develop and follow the Permittee's own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

§63.6640(f)(1) and (f)(2) provide that in order for the engine to be considered an emergency engine under 40 CFR part 63, subpart ZZZZ, any operation other than emergency operation and maintenance or testing, is prohibited. There is no time limit on the use of the engine in emergency situations. The engine may be operated for a maximum of 100 hours per calendar year for maintenance checks and readiness testing, provided that

the tests are recommended by federal, state or local government, the manufacturer, the vendor, or the insurance company associated with the engine.

Notification and Reporting Requirements

No notification requirements under §63.6645 or reporting requirements under § 63.6650.

Record Keeping Requirements

§63.6655 (e) Requires the Permittee to keep records of the maintenance conducted on the fire pump engine in order to demonstrate that the fire pump engine was operated and maintained according to the Permittee's own maintenance plan.

§63.6655 (f) Requires the Permittee to keep records of the hours of operation of the fire pump engine that is recorded through the non-resettable hour meter and to document how many hours were spent for emergency operation, including what classified the operation as emergency and how many hours were spent for non-emergency operation.

§63.6660 (a) The records must be in a form suitable and readily available for expeditious review according to § 63.10(b)(1).

§63.6660(b) As specified in § 63.10(b)(1), each record must be kept for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

§63.6660 (c) The Permittee must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1).

TRC

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