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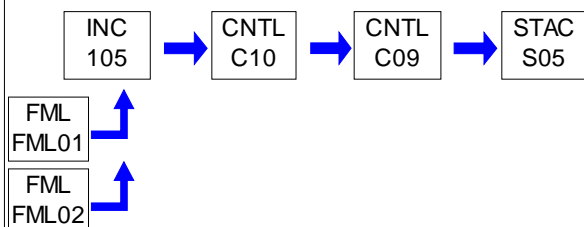
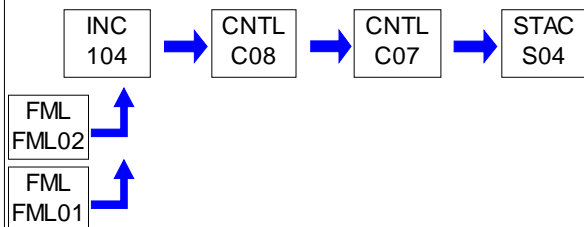
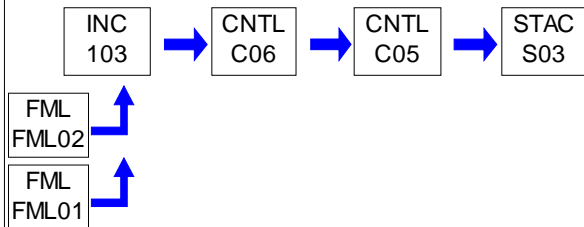
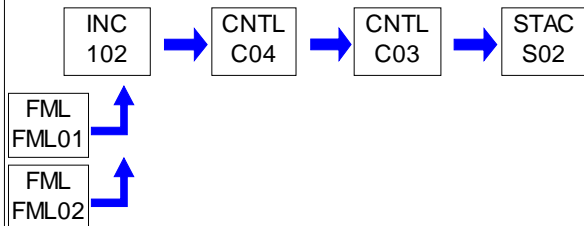
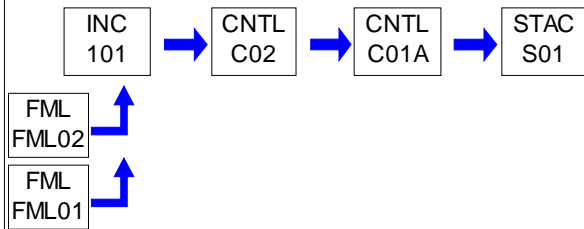
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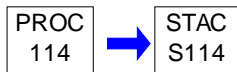
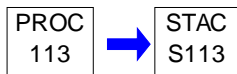
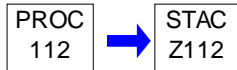
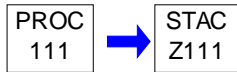
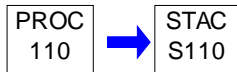
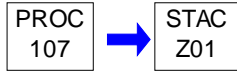
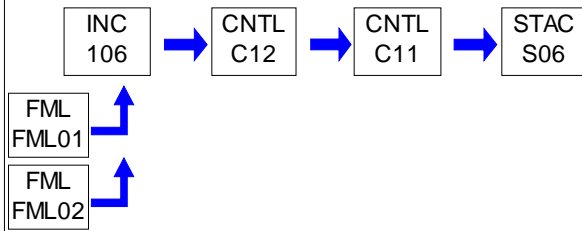
**SECTION A. Site Inventory List**

Source ID	Source Name	Capacity/Throughput	Fuel/Material
101	ROTARY COMBUSTER 1		
102	ROTARY COMBUSTER 2		
103	ROTARY COMBUSTER 3		
104	ROTARY COMBUSTER 4		
105	ROTARY COMBUSTER 5		
106	ROTARY COMBUSTER 6		
107	VEHICLE TRAFFIC ON ROADS	N/A	DUST
108	COOLING TOWER		
110	LIME STORAGE SILO		
111	ASH HANDLING		
112	COLD DEGREASERS (2)	N/A	SOLVENT
113	EMERGENCY ENGINE		
114	EMERGENCY FIRE PUMP ENGINE		
C01A	BAGHOUSE - PULSE JET FABRIC FILTER		
C02	SPRAY DRYER ABSORBER		
C03	BAGHOUSE - PULSE JET FABRIC FILTER		
C04	SPRAY DRYER ABSORBER		
C05	BAGHOUSE - PULSE JET FABRIC FILTER		
C06	SPRAY DRYER ABSORBER		
C07	BAGHOUSE - PULSE JET FABRIC FILTER		
C08	SPRAY DRYER ABSORBER		
C09	BAGHOUSE - PULSE JET FABRIC FILTER		
C10	SPRAY DRYER ABSORBER		
C108	COOLING TOWER MIST ELIMINATORS		
C11	BAGHOUSE - PULSE JET FABRIC FILTER		
C12	SPRAY DRYER ABSORBER		
FML01	NATURAL GAS PIPELINE		
FML02	MUNICIPAL WASTE STORAGE PIT		
S01	COMBUSTOR 1 STACK		
S02	COMBUSTOR 2 STACK		
S03	COMBUSTOR 3 STACK		
S04	COMBUSTOR 4 STACK		
S05	COMBUSTOR 5 STACK		
S06	COMBUSTOR 6 STACK		
S110	LIME STORAGE STACK		
S113	EMERGENCY ENGINE STACK		
S114	EMERGENCY FIRE PUMP ENGINE STACK		
Z01	ROAD DUST EMISSIONS		
Z108	COOLING TOWER FUGITIVES		
Z111	ASH HANDLING FUGITIVES		

**SECTION A. Site Inventory List**

Source ID	Source Name	Capacity/Throughput	Fuel/Material
Z112	DEGREASER FUGITIVES		

PERMIT MAPS

PERMIT MAPS

**SECTION B. General Title V Requirements****#001 [25 Pa. Code § 121.1]****Definitions**

Words and terms that are not otherwise defined in this permit shall have the meanings set forth in Section 3 of the Air Pollution Control Act (35 P.S. § 4003) and 25 Pa. Code § 121.1.

#002 [25 Pa. Code § 127.512(c)(4)]**Property Rights**

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

#003 [25 Pa. Code § 127.446(a) and (c)]**Permit Expiration**

This operating permit is issued for a fixed term of five (5) years and shall expire on the date specified on Page 1 of this permit. The terms and conditions of the expired permit shall automatically continue pending issuance of a new Title V permit, provided the permittee has submitted a timely and complete application and paid applicable fees required under 25 Pa. Code Chapter 127, Subchapter I and the Department is unable, through no fault of the permittee, to issue or deny a new permit before the expiration of the previous permit. An application is complete if it contains sufficient information to begin processing the application, has the applicable sections completed and has been signed by a responsible official.

#004 [25 Pa. Code §§ 127.412, 127.413, 127.414, 127.446(e) & 127.503]**Permit Renewal**

(a) An application for the renewal of the Title V permit shall be submitted to the Department at least six (6) months, and not more than 18 months, before the expiration date of this permit. The renewal application is timely if a complete application is submitted to the Department's Regional Air Manager within the timeframe specified in this permit condition.

(b) The application for permit renewal shall include the current permit number, the appropriate permit renewal fee, a description of any permit revisions and off-permit changes that occurred during the permit term, and any applicable requirements that were promulgated and not incorporated into the permit during the permit term.

(c) The renewal application shall also include submission of proof that the local municipality and county, in which the facility is located, have been notified in accordance with 25 Pa. Code § 127.413. The application for renewal of the Title V permit shall also include submission of compliance review forms which have been used by the permittee to update information submitted in accordance with either 25 Pa. Code § 127.412(b) or § 127.412(j).

(d) The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information during the permit renewal process. The permittee shall also promptly provide additional information as necessary to address any requirements that become applicable to the source after the date a complete renewal application was submitted but prior to release of a draft permit.

#005 [25 Pa. Code §§ 127.450(a)(4) & 127.464(a)]**Transfer of Ownership or Operational Control**

(a) In accordance with 25 Pa. Code § 127.450(a)(4), a change in ownership or operational control of the source shall be treated as an administrative amendment if:

(1) The Department determines that no other change in the permit is necessary;

(2) A written agreement has been submitted to the Department identifying the specific date of the transfer of permit responsibility, coverage and liability between the current and the new permittee; and,

(3) A compliance review form has been submitted to the Department and the permit transfer has been approved by the Department.

**SECTION B. General Title V Requirements**

(b) In accordance with 25 Pa. Code § 127.464(a), this permit may not be transferred to another person except in cases of transfer-of-ownership which are documented and approved to the satisfaction of the Department.

#006 [25 Pa. Code § 127.513, 35 P.S. § 4008 and § 114 of the CAA]**Inspection and Entry**

(a) Upon presentation of credentials and other documents as may be required by law for inspection and entry purposes, the permittee shall allow the Department of Environmental Protection or authorized representatives of the Department to perform the following:

- (1) Enter at reasonable times upon the permittee's premises where a Title V source is located or emissions related activity is conducted, or where records are kept under the conditions of this permit;
- (2) Have access to and copy or remove, at reasonable times, records that are kept under the conditions of this permit;
- (3) Inspect at reasonable times, facilities, equipment including monitoring and air pollution control equipment, practices, or operations regulated or required under this permit;
- (4) Sample or monitor, at reasonable times, substances or parameters, for the purpose of assuring compliance with the permit or applicable requirements as authorized by the Clean Air Act, the Air Pollution Control Act, or the regulations promulgated under the Acts.

(b) Pursuant to 35 P.S. § 4008, no person shall hinder, obstruct, prevent or interfere with the Department or its personnel in the performance of any duty authorized under the Air Pollution Control Act.

(c) Nothing in this permit condition shall limit the ability of the EPA to inspect or enter the premises of the permittee in accordance with Section 114 or other applicable provisions of the Clean Air Act.

#007 [25 Pa. Code §§ 127.25, 127.444, & 127.512(c)(1)]**Compliance Requirements**

(a) The permittee shall comply with the conditions of this permit. Noncompliance with this permit constitutes a violation of the Clean Air Act and the Air Pollution Control Act and is grounds for one (1) or more of the following:

- (1) Enforcement action
- (2) Permit termination, revocation and reissuance or modification
- (3) Denial of a permit renewal application

(b) A person may not cause or permit the operation of a source, which is subject to 25 Pa. Code Article III, unless the source(s) and air cleaning devices identified in the application for the plan approval and operating permit and the plan approval issued to the source are operated and maintained in accordance with specifications in the applications and the conditions in the plan approval and operating permit issued by the Department. A person may not cause or permit the operation of an air contamination source subject to 25 Pa. Code Chapter 127 in a manner inconsistent with good operating practices.

(c) For purposes of Sub-condition (b) of this permit condition, the specifications in applications for plan approvals and operating permits are the physical configurations and engineering design details which the Department determines are essential for the permittee's compliance with the applicable requirements in this Title V permit.

#008 [25 Pa. Code § 127.512(c)(2)]**Need to Halt or Reduce Activity Not a Defense**

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

**SECTION B. General Title V Requirements****#009 [25 Pa. Code §§ 127.411(d) & 127.512(c)(5)]****Duty to Provide Information**

(a) The permittee shall furnish to the Department, within a reasonable time, information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit.

(b) Upon request, the permittee shall also furnish to the Department copies of records that the permittee is required to keep by this permit, or for information claimed to be confidential, the permittee may furnish such records directly to the Administrator of EPA along with a claim of confidentiality.

#010 [25 Pa. Code §§ 127.463, 127.512(c)(3) & 127.542]**Reopening and Revising the Title V Permit for Cause**

(a) This Title V permit may be modified, revoked, reopened and reissued or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay a permit condition.

(b) This permit may be reopened, revised and reissued prior to expiration of the permit under one or more of the following circumstances:

(1) Additional applicable requirements under the Clean Air Act or the Air Pollution Control Act become applicable to a Title V facility with a remaining permit term of three (3) or more years prior to the expiration date of this permit. The Department will revise the permit as expeditiously as practicable but not later than 18 months after promulgation of the applicable standards or regulations. No such revision is required if the effective date of the requirement is later than the expiration date of this permit, unless the original permit or its terms and conditions has been extended.

(2) Additional requirements, including excess emissions requirements, become applicable to an affected source under the acid rain program. Upon approval by the Administrator of EPA, excess emissions offset plans for an affected source shall be incorporated into the permit.

(3) The Department or the EPA determines that this permit contains a material mistake or inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit.

(4) The Department or the Administrator of EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

(c) Proceedings to revise this permit shall follow the same procedures which apply to initial permit issuance and shall affect only those parts of this permit for which cause to revise exists. The revision shall be made as expeditiously as practicable.

(d) Regardless of whether a revision is made in accordance with (b)(1) above, the permittee shall meet the applicable standards or regulations promulgated under the Clean Air Act within the time frame required by standards or regulations.

#011 [25 Pa. Code § 127.543]**Reopening a Title V Permit for Cause by EPA**

As required by the Clean Air Act and regulations adopted thereunder, this permit may be modified, reopened and reissued, revoked or terminated for cause by EPA in accordance with procedures specified in 25 Pa. Code § 127.543.

#012 [25 Pa. Code § 127.541]**Significant Operating Permit Modifications**

When permit modifications during the term of this permit do not qualify as minor permit modifications or administrative amendments, the permittee shall submit an application for significant Title V permit modifications in accordance with 25 Pa. Code § 127.541.

**SECTION B. General Title V Requirements****#013 [25 Pa. Code §§ 121.1 & 127.462]****Minor Operating Permit Modifications**

The permittee may make minor operating permit modifications (as defined in 25 Pa. Code §121.1), on an expedited basis, in accordance with 25 Pa. Code §127.462 (relating to minor operating permit modifications).

#014 [25 Pa. Code § 127.450]**Administrative Operating Permit Amendments**

- (a) The permittee may request administrative operating permit amendments, as defined in 25 Pa. Code §127.450(a).
- (b) Upon final action by the Department granting a request for an administrative operating permit amendment covered under §127.450(a)(5), the permit shield provisions in 25 Pa. Code § 127.516 (relating to permit shield) shall apply to administrative permit amendments incorporated in this Title V Permit in accordance with §127.450(c), unless precluded by the Clean Air Act or the regulations thereunder.

#015 [25 Pa. Code § 127.512(b)]**Severability Clause**

The provisions of this permit are severable, and if any provision of this permit is determined by the Environmental Hearing Board or a court of competent jurisdiction, or US EPA to be invalid or unenforceable, such a determination will not affect the remaining provisions of this permit.

#016 [25 Pa. Code §§ 127.704, 127.705 & 127.707]**Fee Payment**

- (a) The permittee shall pay fees to the Department in accordance with the applicable fee schedules in 25 Pa. Code Chapter 127, Subchapter I (relating to plan approval and operating permit fees).
- (b) Emission Fees. The permittee shall, on or before September 1st of each year, pay applicable annual Title V emission fees for emissions occurring in the previous calendar year as specified in 25 Pa. Code § 127.705. The permittee is not required to pay an emission fee for emissions of more than 4,000 tons of each regulated pollutant emitted from the facility.
- (c) As used in this permit condition, the term "regulated pollutant" is defined as a VOC, each pollutant regulated under Sections 111 and 112 of the Clean Air Act and each pollutant for which a National Ambient Air Quality Standard has been promulgated, except that carbon monoxide is excluded.
- (d) Late Payment. Late payment of emission fees will subject the permittee to the penalties prescribed in 25 Pa. Code § 127.707 and may result in the suspension or termination of the Title V permit. The permittee shall pay a penalty of fifty percent (50%) of the fee amount, plus interest on the fee amount computed in accordance with 26 U.S.C.A. § 6621(a)(2) from the date the emission fee should have been paid in accordance with the time frame specified in 25 Pa. Code § 127.705(c).
- (e) The permittee shall pay an annual operating permit administration fee according to the fee schedule established in 25 Pa. Code § 127.704(c) if the facility, identified in Subparagraph (iv) of the definition of the term "Title V facility" in 25 Pa. Code § 121.1, is subject to Title V after the EPA Administrator completes a rulemaking requiring regulation of those sources under Title V of the Clean Air Act.
- (f) This permit condition does not apply to a Title V facility which qualifies for exemption from emission fees under 35 P.S. § 4006.3(f).

#017 [25 Pa. Code §§ 127.14(b) & 127.449]**Authorization for De Minimis Emission Increases**

- (a) This permit authorizes de minimis emission increases from a new or existing source in accordance with 25 Pa. Code §§ 127.14 and 127.449 without the need for a plan approval or prior issuance of a permit modification. The permittee shall provide the Department with seven (7) days prior written notice before commencing any de minimis emissions increase that would result from either: (1) a physical change of minor significance under § 127.14(c)(1); or

**SECTION B. General Title V Requirements**

(2) the construction, installation, modification or reactivation of an air contamination source. The written notice shall:

(1) Identify and describe the pollutants that will be emitted as a result of the de minimis emissions increase.

(2) Provide emission rates expressed in tons per year and in terms necessary to establish compliance consistent with any applicable requirement.

The Department may disapprove or condition de minimis emission increases at any time.

(b) Except as provided below in (c) and (d) of this permit condition, the permittee is authorized during the term of this permit to make de minimis emission increases (expressed in tons per year) up to the following amounts without the need for a plan approval or prior issuance of a permit modification:

(1) Four tons of carbon monoxide from a single source during the term of the permit and 20 tons of carbon monoxide at the facility during the term of the permit.

(2) One ton of NO_x from a single source during the term of the permit and 5 tons of NO_x at the facility during the term of the permit.

(3) One and six-tenths tons of the oxides of sulfur from a single source during the term of the permit and 8.0 tons of oxides of sulfur at the facility during the term of the permit.

(4) Six-tenths of a ton of PM₁₀ from a single source during the term of the permit and 3.0 tons of PM₁₀ at the facility during the term of the permit. This shall include emissions of a pollutant regulated under Section 112 of the Clean Air Act unless precluded by the Clean Air Act or 25 Pa. Code Article III.

(5) One ton of VOCs from a single source during the term of the permit and 5.0 tons of VOCs at the facility during the term of the permit. This shall include emissions of a pollutant regulated under Section 112 of the Clean Air Act unless precluded by the Clean Air Act or 25 Pa. Code Article III.

(c) In accordance with § 127.14, the permittee may install the following minor sources without the need for a plan approval:

(1) Air conditioning or ventilation systems not designed to remove pollutants generated or released from other sources.

(2) Combustion units rated at 2,500,000 or less Btu per hour of heat input.

(3) Combustion units with a rated capacity of less than 10,000,000 Btu per hour heat input fueled by natural gas supplied by a public utility, liquefied petroleum gas or by commercial fuel oils which are No. 2 or lighter, viscosity less than or equal to 5.82 c St, and which meet the sulfur content requirements of 25 Pa. Code § 123.22 (relating to combustion units). For purposes of this permit, commercial fuel oil shall be virgin oil which has no reprocessed, recycled or waste material added.

(4) Space heaters which heat by direct heat transfer.

(5) Laboratory equipment used exclusively for chemical or physical analysis.

(6) Other sources and classes of sources determined to be of minor significance by the Department.

(d) This permit does not authorize de minimis emission increases if the emissions increase would cause one or more of the following:

(1) Increase the emissions of a pollutant regulated under Section 112 of the Clean Air Act except as authorized in Subparagraphs (b)(4) and (5) of this permit condition.

(2) Subject the facility to the prevention of significant deterioration requirements in 25 Pa. Code Chapter 127, Subchapter D and/or the new source review requirements in Subchapter E.

**SECTION B. General Title V Requirements**

(3) Violate any applicable requirement of the Air Pollution Control Act, the Clean Air Act, or the regulations promulgated under either of the acts.

(4) Changes which are modifications under any provision of Title I of the Clean Air Act and emission increases which would exceed the allowable emissions level (expressed as a rate of emissions or in terms of total emissions) under the Title V permit.

(e) Unless precluded by the Clean Air Act or the regulations thereunder, the permit shield described in 25 Pa. Code § 127.516 (relating to permit shield) shall extend to the changes made under 25 Pa. Code § 127.449 (relating to de minimis emission increases).

(f) Emissions authorized under this permit condition shall be included in the monitoring, recordkeeping and reporting requirements of this permit.

(g) Except for de minimis emission increases allowed under this permit, 25 Pa. Code § 127.449, or sources and physical changes meeting the requirements of 25 Pa. Code § 127.14, the permittee is prohibited from making physical changes or engaging in activities that are not specifically authorized under this permit without first applying for a plan approval. In accordance with § 127.14(b), a plan approval is not required for the construction, modification, reactivation, or installation of the sources creating the de minimis emissions increase.

(h) The permittee may not meet de minimis emission threshold levels by offsetting emission increases or decreases at the same source.

#018 [25 Pa. Code §§ 127.11a & 127.215]**Reactivation of Sources**

(a) The permittee may reactivate a source at the facility that has been out of operation or production for at least one year, but less than or equal to five (5) years, if the source is reactivated in accordance with the requirements of 25 Pa. Code §§ 127.11a and 127.215. The reactivated source will not be considered a new source.

(b) A source which has been out of operation or production for more than five (5) years but less than 10 years may be reactivated and will not be considered a new source if the permittee satisfies the conditions specified in 25 Pa. Code § 127.11a(b).

#019 [25 Pa. Code §§ 121.9 & 127.216]**Circumvention**

(a) The owner of this Title V facility, or any other person, may not circumvent the new source review requirements of 25 Pa. Code Chapter 127, Subchapter E by causing or allowing a pattern of ownership or development, including the phasing, staging, delaying or engaging in incremental construction, over a geographic area of a facility which, except for the pattern of ownership or development, would otherwise require a permit or submission of a plan approval application.

(b) No person may permit the use of a device, stack height which exceeds good engineering practice stack height, dispersion technique or other technique which, without resulting in reduction of the total amount of air contaminants emitted, conceals or dilutes an emission of air contaminants which would otherwise be in violation of this permit, the Air Pollution Control Act or the regulations promulgated thereunder, except that with prior approval of the Department, the device or technique may be used for control of malodors.

#020 [25 Pa. Code §§ 127.402(d) & 127.513(1)]**Submissions**

(a) Reports, test data, monitoring data, notifications and requests for renewal of the permit shall be submitted to the:

Regional Air Program Manager
PA Department of Environmental Protection
(At the address given on the permit transmittal letter,
or otherwise notified)

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(b) Any report or notification for the EPA Administrator or EPA Region III should be addressed to:

Office of Air Enforcement and Compliance Assistance (3AP20)
 United States Environmental Protection Agency
 Region 3
 1650 Arch Street
 Philadelphia, PA 19103-2029

(c) An application, form, report or compliance certification submitted pursuant to this permit condition shall contain certification by a responsible official as to truth, accuracy, and completeness as required under 25 Pa. Code § 127.402(d). Unless otherwise required by the Clean Air Act or regulations adopted thereunder, this certification and any other certification required pursuant to this permit shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

#021 [25 Pa. Code §§ 127.441(c) & 127.463(e); Chapter 139; & 114(a)(3), 504(b) of the CAA]**Sampling, Testing and Monitoring Procedures**

(a) The permittee shall perform the emissions monitoring and analysis procedures or test methods for applicable requirements of this Title V permit. In addition to the sampling, testing and monitoring procedures specified in this permit, the Permittee shall comply with any additional applicable requirements promulgated under the Clean Air Act after permit issuance regardless of whether the permit is revised.

(b) The sampling, testing and monitoring required under the applicable requirements of this permit, shall be conducted in accordance with the requirements of 25 Pa. Code Chapter 139 unless alternative methodology is required by the Clean Air Act (including §§ 114(a)(3) and 504(b)) and regulations adopted thereunder.

#022 [25 Pa. Code §§ 127.511 & Chapter 135]**Recordkeeping Requirements**

(a) The permittee shall maintain and make available, upon request by the Department, records of required monitoring information that include the following:

- (1) The date, place (as defined in the permit) and time of sampling or measurements.
- (2) The dates the analyses were performed.
- (3) The company or entity that performed the analyses.
- (4) The analytical techniques or methods used.
- (5) The results of the analyses.
- (6) The operating conditions as existing at the time of sampling or measurement.

(b) The permittee shall retain records of the required monitoring data and supporting information for at least five (5) years from the date of the monitoring sample, measurement, report or application. Supporting information includes the calibration data and maintenance records and original strip-chart recordings for continuous monitoring instrumentation, and copies of reports required by the permit.

(c) The permittee shall maintain and make available to the Department upon request, records including computerized records that may be necessary to comply with the reporting, recordkeeping and emission statement requirements in 25 Pa. Code Chapter 135 (relating to reporting of sources). In accordance with 25 Pa. Code Chapter 135, § 135.5, such records may include records of production, fuel usage, maintenance of production or pollution control equipment or other information determined by the Department to be necessary for identification and quantification of potential and actual air contaminant emissions. If direct recordkeeping is not possible or practical, sufficient records shall be kept to provide the needed information by indirect means.

**SECTION B. General Title V Requirements****#023 [25 Pa. Code §§ 127.411(d), 127.442, 127.463(e) & 127.511(c)]****Reporting Requirements**

(a) The permittee shall comply with the reporting requirements for the applicable requirements specified in this Title V permit. In addition to the reporting requirements specified herein, the permittee shall comply with any additional applicable reporting requirements promulgated under the Clean Air Act after permit issuance regardless of whether the permit is revised.

(b) Pursuant to 25 Pa. Code § 127.511(c), the permittee shall submit reports of required monitoring at least every six (6) months unless otherwise specified in this permit. Instances of deviations (as defined in 25 Pa. Code § 121.1) from permit requirements shall be clearly identified in the reports. The reporting of deviations shall include the probable cause of the deviations and corrective actions or preventative measures taken, except that sources with continuous emission monitoring systems shall report according to the protocol established and approved by the Department for the source. The required reports shall be certified by a responsible official.

(c) Every report submitted to the Department under this permit condition shall comply with the submission procedures specified in Section B, Condition #020(c) of this permit.

(d) Any records, reports or information obtained by the Department or referred to in a public hearing shall be made available to the public by the Department except for such records, reports or information for which the permittee has shown cause that the documents should be considered confidential and protected from disclosure to the public under Section 4013.2 of the Air Pollution Control Act and consistent with Sections 112(d) and 114(c) of the Clean Air Act and 25 Pa. Code § 127.411(d). The permittee may not request a claim of confidentiality for any emissions data generated for the Title V facility.

#024 [25 Pa. Code § 127.513]**Compliance Certification**

(a) One year after the date of issuance of the Title V permit, and each year thereafter, unless specified elsewhere in the permit, the permittee shall submit to the Department and EPA Region III a certificate of compliance with the terms and conditions in this permit, for the previous year, including the emission limitations, standards or work practices. This certification shall include:

- (1) The identification of each term or condition of the permit that is the basis of the certification.
- (2) The compliance status.
- (3) The methods used for determining the compliance status of the source, currently and over the reporting period.
- (4) Whether compliance was continuous or intermittent.

(b) The compliance certification shall be postmarked or hand-delivered no later than thirty days after each anniversary of the date of issuance of this Title V Operating Permit, or on the submittal date specified elsewhere in the permit, to the Department and EPA in accordance with the submission requirements specified in condition #020 of this section.

#025 [25 Pa. Code § 127.3]**Operational Flexibility**

The permittee is authorized to make changes within the Title V facility in accordance with the following provisions in 25 Pa. Code Chapter 127 which implement the operational flexibility requirements of Section 502(b)(10) of the Clean Air Act and Section 6.1(i) of the Air Pollution Control Act:

- (1) Section 127.14 (relating to exemptions)
- (2) Section 127.447 (relating to alternative operating scenarios)
- (3) Section 127.448 (relating to emissions trading at facilities with federally enforceable emissions caps)
- (4) Section 127.449 (relating to de minimis emission increases)

**SECTION B. General Title V Requirements**

(5) Section 127.450 (relating to administrative operating permit amendments)

(6) Section 127.462 (relating to minor operating permit amendments)

(7) Subchapter H (relating to general plan approvals and operating permits)

#026 [25 Pa. Code §§ 127.441(d), 127.512(i) and 40 CFR Part 68]**Risk Management**

(a) If required by Section 112(r) of the Clean Air Act, the permittee shall develop and implement an accidental release program consistent with requirements of the Clean Air Act, 40 CFR Part 68 (relating to chemical accident prevention provisions) and the Federal Chemical Safety Information, Site Security and Fuels Regulatory Relief Act (P.L. 106-40).

(b) The permittee shall prepare and implement a Risk Management Plan (RMP) which meets the requirements of Section 112(r) of the Clean Air Act, 40 CFR Part 68 and the Federal Chemical Safety Information, Site Security and Fuels Regulatory Relief Act when a regulated substance listed in 40 CFR § 68.130 is present in a process in more than the listed threshold quantity at the Title V facility. The permittee shall submit the RMP to the federal Environmental Protection Agency according to the following schedule and requirements:

(1) The permittee shall submit the first RMP to a central point specified by EPA no later than the latest of the following:

(i) Three years after the date on which a regulated substance is first listed under § 68.130; or,

(ii) The date on which a regulated substance is first present above a threshold quantity in a process.

(2) The permittee shall submit any additional relevant information requested by the Department or EPA concerning the RMP and shall make subsequent submissions of RMPs in accordance with 40 CFR § 68.190.

(3) The permittee shall certify that the RMP is accurate and complete in accordance with the requirements of 40 CFR Part 68, including a checklist addressing the required elements of a complete RMP.

(c) As used in this permit condition, the term "process" shall be as defined in 40 CFR § 68.3. The term "process" means any activity involving a regulated substance including any use, storage, manufacturing, handling, or on-site movement of such substances or any combination of these activities. For purposes of this definition, any group of vessels that are interconnected, or separate vessels that are located such that a regulated substance could be involved in a potential release, shall be considered a single process.

(d) If the Title V facility is subject to 40 CFR Part 68, as part of the certification required under this permit, the permittee shall:

(1) Submit a compliance schedule for satisfying the requirements of 40 CFR Part 68 by the date specified in 40 CFR § 68.10(a); or,

(2) Certify that the Title V facility is in compliance with all requirements of 40 CFR Part 68 including the registration and submission of the RMP.

(e) If the Title V facility is subject to 40 CFR Part 68, the permittee shall maintain records supporting the implementation of an accidental release program for five (5) years in accordance with 40 CFR § 68.200.

(f) When the Title V facility is subject to the accidental release program requirements of Section 112(r) of the Clean Air Act and 40 CFR Part 68, appropriate enforcement action will be taken by the Department if:

(1) The permittee fails to register and submit the RMP or a revised plan pursuant to 40 CFR Part 68.

(2) The permittee fails to submit a compliance schedule or include a statement in the compliance certification required under Condition #24 of Section B of this Title V permit that the Title V facility is in compliance with the requirements of Section 112(r) of the Clean Air Act, 40 CFR Part 68, and 25 Pa. Code § 127.512(i).

**SECTION B. General Title V Requirements****#027 [25 Pa. Code § 127.512(e)]****Approved Economic Incentives and Emission Trading Programs**

No permit revision shall be required under approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this Title V permit.

#028 [25 Pa. Code §§ 127.516, 127.450(d), 127.449(f) & 127.462(g)]**Permit Shield**

(a) The permittee's compliance with the conditions of this permit shall be deemed in compliance with applicable requirements (as defined in 25 Pa. Code § 121.1) as of the date of permit issuance if either of the following applies:

(1) The applicable requirements are included and are specifically identified in this permit.

(2) The Department specifically identifies in the permit other requirements that are not applicable to the permitted facility or source.

(b) Nothing in 25 Pa. Code § 127.516 or the Title V permit shall alter or affect the following:

(1) The provisions of Section 303 of the Clean Air Act, including the authority of the Administrator of the EPA provided thereunder.

(2) The liability of the permittee for a violation of an applicable requirement prior to the time of permit issuance.

(3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act.

(4) The ability of the EPA to obtain information from the permittee under Section 114 of the Clean Air Act.

(c) Unless precluded by the Clean Air Act or regulations thereunder, final action by the Department incorporating a significant permit modification in this Title V Permit shall be covered by the permit shield at the time that the permit containing the significant modification is issued.

**SECTION C. Site Level Requirements****I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §121.7]****Prohibition of air pollution.**

No person may permit air pollution as that term is defined in the Air Pollution Control Act (35 P.S. Section 4003).

002 [25 Pa. Code §123.1]**Prohibition of certain fugitive emissions**

No person may permit the emission into the outdoor atmosphere of fugitive air contaminant from a source other than the following:

- (a) construction or demolition of buildings or structures;
- (b) grading, paving and maintenance of roads and streets;
- (c) use of roads and streets. Emissions from material in or on trucks, railroad cars and other vehicular equipment are not considered as emissions from use of roads and streets;
- (d) clearing of land;
- (e) stockpiling of materials;
- (f) open burning operations, as specified in 25 Pa. Code § 129.14;
- (g) blasting in open pit mines. Emissions from drilling are not considered as emissions from blasting;
- (h) coke oven batteries, provided the fugitive air contaminants emitted from any coke oven battery comply with the standards for visible fugitive emissions in 25 Pa. Code §§ 123.44 and 129.15 (relating to limitations of visible fugitive air contaminants from operation of any coke oven battery; and coke pushing operations); and
- (i) sources and classes of sources other than those identified in (a)-(h), above, for which the permittee has obtained a determination from the Department that fugitive emissions from the source, after appropriate control, meet the following requirements:
 - (1) the emissions are of minor significance with respect to causing air pollution; and
 - (2) the emissions are not preventing or interfering with the attainment or maintenance of any ambient air quality standard.

003 [25 Pa. Code §123.2]**Fugitive particulate matter**

A person may not permit fugitive particulate matter to be emitted into the outdoor atmosphere from a source specified in Condition #002 (relating to prohibition of certain fugitive emissions) if such emissions are visible at the point the emissions pass outside the person's property.

004 [25 Pa. Code §123.31]**Limitations**

A person may not permit the emission into the outdoor atmosphere of any malodorous air contaminants from any source in such a manner that the malodors are detectable outside the property of the person on whose land the source is being operated.

005 [25 Pa. Code §123.41]**Limitations**

A person may not permit the emission into the outdoor atmosphere of visible air contaminants in such a manner that the opacity of the emission is either of the following:

- (1) Equal to or greater than 20% for a period or periods aggregating more than three minutes in any 1 hour.
- (2) Equal to or greater than 60% at any time.

006 [25 Pa. Code §123.42]**Exceptions**

The limitations of 25 Pa. Code §123.41 (relating to limitations) shall not apply to a visible emission in any of the following instances:

- (a) when the presence of uncombined water is the only reason for failure of the emission to meet the limitations.
- (b) When the emission results from sources specified in Condition #002 of this Section.

SECTION C. Site Level Requirements**# 007 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

(a) Except as provided in Condition #002 of Section C and Condition #001 of Section D for Source ID 111, no fugitive emissions shall be emitted into the outdoor atmosphere from any building or enclosure associated with the combustor(s) at any time.

(b) The VOC emissions from the entire facility shall not exceed 50.0 tons in any 12 consecutive month period.

008 [25 Pa. Code §129.14]**Open burning operations**

No person may permit the open burning of material in the Southeast Air Basin except where the open burning operations result from:

(a) a fire set to prevent or abate a fire hazard, when approved by the Department and set by or under the supervision of a public officer;

(b) any fire set for the purpose of instructing personnel in fire fighting, when approved by the Department;

(c) a fire set for the prevention and control of disease or pests, when approved by the Department;

(d) a fire set in conjunction with the production of agricultural commodities in their unmanufactured state on the premises of the farm operation;

(e) a fire set for the purpose of burning domestic refuse, when the fire is on the premises of a structure occupied solely as a dwelling by two families or less and when the refuse results from the normal occupancy of the structure;

(f) a fire set solely for recreational or ceremonial purposes; or

(g) a fire set solely for cooking food.

II. TESTING REQUIREMENTS.**# 009 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

(a) All test procedures shall be submitted to the Regional Air Quality Manager sixty (60) days prior to any test, but no later than the time frame as established in the Department's Compliance Assurance Policy on Municipal Waste Incinerators and latest amendments.

(b) At least thirty (30) days prior to the test, the Air Quality Manager shall be informed of the date and time of the test.

(c) Within sixty (60) days after the source test(s), two (2) copies of the complete test report shall be submitted to the Regional Air Quality Manager for approval. The test report shall include all operating conditions for all tests required by this Operating Permit and indicate the amount of waste combusted, classification of wastes, amount of each type of waste, Btu content of wastes, and composition of wastes.

(d) If at any time the Department has cause to believe that air contaminant emissions from any source(s) listed in Section A, of this Permit, may be in excess of the limitations specified in this Permit, or established pursuant to, any applicable rule or regulation contained in 25 Pa. Code Article III, the permittee shall be required to conduct whatever tests deemed necessary by the Department to determine the actual emission rate(s).

(e) Such testing shall be conducted in accordance with the provisions of 25 Pa. Code Chapter 139, when applicable, and in accordance with any restrictions or limitations established by the Department at such time as it notifies the permittee that testing is required.

III. MONITORING REQUIREMENTS.**# 010 [25 Pa. Code §123.43]****Measuring techniques**

Visible emissions may be measured using either of the following:

(a) a device approved by the Department and maintained to provide accurate opacity measurements; and

(b) observers, trained and qualified to measure plume opacity with the naked eye or with the aid of any devices approved by the Department.

**SECTION C. Site Level Requirements****# 011 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

(a) The permittee shall monitor the facility, once per operating day, for the following:

- (1) odors which may be objectionable (as per 25 Pa. Code §123.31);
- (2) visible emissions (as per 25 Pa. Code §§123.41 and 123.42); and
- (3) fugitive particulate matter (as per 25 Pa. Code §§ 123.1 and 123.2).

(b) Objectionable odors, fugitive particulate emissions, and visible emissions that are caused or may be caused by operations at the site shall:

- (1) be investigated;
- (2) be reported to the facility management, or individual(s) designated by the permittee;
- (3) have appropriate corrective action taken (for emissions that originate on-site); and
- (4) be recorded in a permanent written log.

IV. RECORDKEEPING REQUIREMENTS.**# 012 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

(a) The permittee shall maintain a file containing all records and other data that are required to be collected pursuant to the various provisions of this Operating Permit. This file shall include, but not be limited to:

- (1) all air pollution control system performance evaluations;
- (2) records of calibration checks; and
- (3) records of adjustments and maintenance performed on all equipment which is subject to this operating permit.

(b) The permittee shall keep daily, monthly and 12 consecutive month records of the quantities and classification of all solid waste combusted and accepted at this facility in a format approved by the Department.

(c) The permittee shall maintain records of all monitoring of fugitive emissions, visible emissions and odors, including those that deviate from the conditions found in this permit. The record of deviations shall contain, at a minimum, the following items:

- (1) date, time, and location of the incident(s);
- (2) the cause of the event; and
- (3) the corrective action taken, if necessary, to abate the situation and prevent future occurrences.

V. REPORTING REQUIREMENTS.**# 013 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

(a) The permittee shall, within two (2) hours, of becoming knowledgeable, of any occurrence, notify the Department, at (484) 250-5920, of any malfunction of the source(s) or associated air pollution control devices listed in Section A, of this permit, or any forced shutdown of either combustor(s) because of noncompliance with the conditions of this operating permit, results in, or is reasonably expected to result in, the emission of air contaminants in excess of the limitations specified in this permit, or regulation contained in 25 Pa. Code Article III.

(b) The permittee shall immediately upon becoming knowledgeable, of any occurrence, notify the Department at (484) 250-5920 of any malfunction(s) which occur at this Title V facility, and pose(s) an imminent danger to public health, safety, welfare and the environment, and would violate permit conditions if the source were to continue to operate after the malfunction.

(c) A written report shall be submitted to the Department within two (2) working days following the notification of the incident, and shall describe, at a minimum, the following:

- (1) the malfunction(s);

SECTION C. Site Level Requirements

- (2) the emission(s);
- (3) the duration; and
- (4) any corrective action taken.

(d) The permittee shall submit an annual certificate of compliance, due by April 1st of each year, for the period covering January 1 through December 31 of the previous year. This certificate of compliance shall document compliance with all permit terms and conditions set forth in this Title V permit as required under condition #24 of section B of this permit; and

014 [25 Pa. Code §135.21]**Emission statements**

The permittee shall submit by March 1, of each year, an annual emission statement for the preceding calendar year.

015 [25 Pa. Code §135.3]**Reporting**

(a) The permittee shall submit by March 1, of each year, a source report for the preceding calendar year. The report shall include information from all previously reported sources, new sources which were first operated during the preceding calendar year, and sources modified during the same period which were not previously reported, including those sources listed in the Miscellaneous Section of this permit.

(b) The permittee may request an extension of time from the Department for the filing of a source report, and the Department may grant the extension for reasonable cause.

VI. WORK PRACTICE REQUIREMENTS.**# 016 [25 Pa. Code §123.1]****Prohibition of certain fugitive emissions**

A person responsible for any source specified in Condition #002, above, shall take all reasonable actions to prevent particulate matter from becoming airborne. These actions shall include, but not be limited to, the following

- (a) use, where possible, of water or suitable chemicals, for control of dust in the demolition of buildings or structures, construction operations, the grading of roads, or the clearing of land;
- (b) application of asphalt, water, or other suitable chemicals, on dirt roads, material stockpiles and other surfaces which may give rise to airborne dusts;
- (c) paving and maintenance of roadways; and
- (d) prompt removal of earth or other material from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water, or by other means.

017 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

- (a) The sources and air pollution control devices listed in this permit shall be operated and maintained in a manner consistent with good operating and maintenance practices, and in accordance with manufacturer's specifications.
- (b) The permittee shall immediately, upon discovery, implement measures, which may include the application for the installation of an air cleaning device(s), if necessary, to reduce the air contaminant emissions to within applicable limitations, if at any time the operation of the source(s) identified in Section A, of this permit, is causing the emission of air contaminants in excess of the limitations specified in, or established pursuant to, 25 Pa. Code Article III or any other applicable rule promulgated under the Clean Air Act.

VII. ADDITIONAL REQUIREMENTS.**# 018 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

The permittee may not modify any air contaminant system identified in Sections A or G, of this permit, prior to obtaining Department approval, except those modifications authorized by Condition #017(g), of Section B, of this permit.

VIII. COMPLIANCE CERTIFICATION.



SECTION C. Site Level Requirements

No additional compliance certifications exist except as provided in other sections of this permit including Section B (relating to Title V General Requirements).

IX. COMPLIANCE SCHEDULE.

No compliance milestones exist.

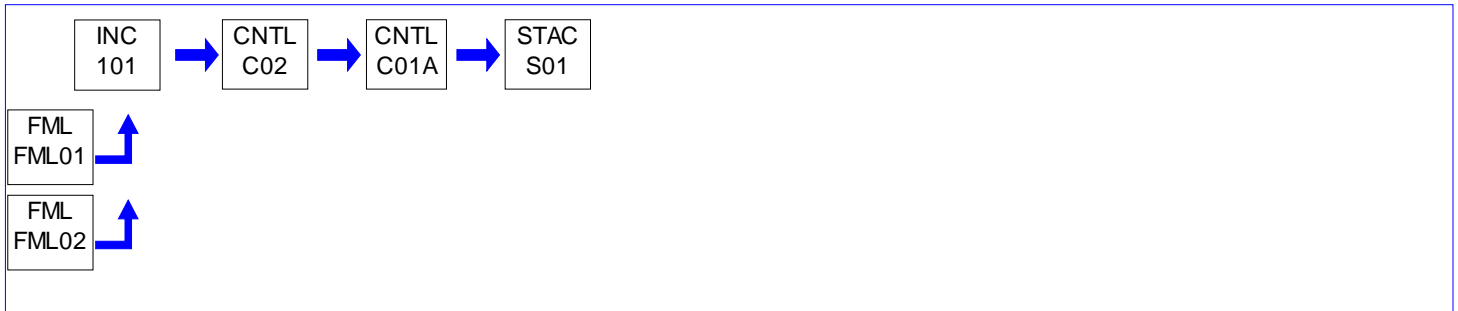
***** Permit Shield In Effect *****

**SECTION D. Source Level Requirements**

Source ID: 101

Source Name: ROTARY COMBUSTER 1

Source Capacity/Throughput:

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

(a) Nitrogen Oxide (NO_x) emissions per combustor, expressed as NO₂, shall not exceed any of the following:

- (1) 180 ppmdv, corrected to 7% oxygen, on a 24-hour block arithmetic average using CEMs;
- (2) 88.56 lbs/hr; and
- (3) 0.42 lbs/MMBtu.

(b) The above NO_x limits are a result of controlled combustion. This control was determined by the Department as being Reasonably Available Control Technology (RACT) for emissions of NO_x (66 FR 54699 and 40 C.F.R. §52.2063).

(c) The NO_x emission limit applies at all times when municipal wastes are combusted, except during periods of start-up, and shut-down, provided that the duration of the start-up or shut-down does not exceed three (3) hours per occurrence.

002 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) The following annual ambient concentrations, expressed in micro-grams/cubic meter (UG/DSCM), shall not be exceeded. To demonstrate compliance with the following annual ambient concentrations, the permittee shall calculate the concentrations using the actual stack emission rates and exhaust parameters from each stack test specified for the combustor(s), and the dispersion modeling techniques used in the application, as approved by the Department. A certification shall be supplied to the Department stating compliance with maximum allowable ambient concentrations with every stack test report.

PCDD & PCDF, expressed as 2,3,7,8 TCDD equivalents* 0.30 x 10E-7

Arsenic and Compounds 0.23 x 10E-3

Beryllium and Compounds 0.42 x 10E-3

Cadmium and Compounds 0.56 x 10E-3

Nickel and Compounds 0.33 x 10E-2

Hexavalent Chromium and Compounds 0.83 x 10E-4

Lead and Compounds 0.09

Mercury and Compounds 0.024

Hydrogen Chloride 7.0

Benzo(a)pyrene 0.59 x 10E-3

(b) Ambient air quality analysis shall be redone if there is a modification in emission limits or for any parameter that exceeds the applicable stack test limitation during any stack test series.

(c) The permittee may be required to resume full modeling if the Department determines that a decrease in either volumetric flow rate and/or stack temperature has a significant adverse impact on the ambient concentration.

* Polychlorinated dibenzo-p-dioxins ("PCDD") and polychlorinated dibenzofurans ("PCDF") expressed as 2, 3, 7, 8

**SECTION D. Source Level Requirements**

tetrachlorinated dibenzo-p-dioxins ("TCDD") equivalents using toxicity equivalents factors ("TEFS") as described in the Department's BAT and calculated according to PADEP approved method.

003 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) VOC emissions, expressed as total hydrocarbons, shall not exceed 37.6 pounds per hour as an aggregate emission rate for the six (6) combustors. This VOC emission limit is a determination of RACT for VOC emissions (66 FR 54699 and 40 C.F.R. §52.2063).

(b) Compliance with this limitation shall be based on the average of three (3) consecutive test runs.

(c) This emissions cap does not provide any relief from obtaining a plan approval for any future physical change or change in the method of operation of any of the combustors. Future applicability determinations must consider the baseline actual emissions of the emissions units and not the cap. The latter is true even if the company does not request a change in the compliance cap. Furthermore, by accepting this cap and agreeing to consider the six combustors as one emissions unit for NSR/PSD purposes, any future applicability determinations must involve all six combustors, e.g. should major NSR/PSD be triggered for any one combustor or process change, BACT/LAER is required for all six combustors.

004 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

SO₂ emissions, per combustor, shall not exceed any of the following:

(a) 68.45 lbs/hr; and

(b) 29 ppm_{dv}, corrected to 7% oxygen, or shall be reduced by no less than 80% (by weight) on a 24-hour block geometric average using CEMs, whichever is less stringent.

005 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) The toxic metal emissions per combustor shall not exceed any of the following:

(1) Emission concentration, measured in ug/dscm and corrected to 7% oxygen:

Arsenic and Compounds 7.2

Beryllium and Compounds 0.2

Cadmium and Compounds 15.8

Hexavalent Chromium and Compounds 2.3

Nickel and Compounds 25.0

Lead and Compounds 166.0

Mercury and Compounds 50 or 15 percent of the potential mercury emission concentration (85-percent reduction by weight), whichever is less stringent.

(2) Emission rate (lbs/hr) was based on an exhaust rate of 68,679 dscfm, at 7% oxygen.

Arsenic and Compounds 0.00185

Beryllium and Compounds 0.000051

Cadmium and Compounds 0.00406

Hexavalent Chromium and Compounds 0.000591

Nickel and Compounds 0.00643

Lead and Compounds 0.0423

Mercury and Compounds 0.029

(b) Compliance with the emission concentration limits shall be documented through stack tests for each combustor. The results shall be based on ppm_{dv} or ug/dscm, as appropriate, and corrected to 7% oxygen.

006 [25 Pa. Code §127.512]

**SECTION D. Source Level Requirements****Operating permit terms and conditions.**

(a) Visible air contaminants from any combustor stack shall not be emitted in such a manner that the opacity (measured by CEMS) of the emissions is equal to or greater than

- (1) 10% for a period aggregating more than three (3) minutes in any one (1) hour; or
- (2) 30% at any time.

(b) The above visible emission limitations do not apply in either of the following instances:

- (1) when the presence of uncombined water is the only reason for failure of the emission to meet the limitations; or
- (2) when the emission results from sources specified in 25 Pa. Code §123.1(a).

007 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) Total mass dioxin/furan emissions per combustor shall not exceed 30 nanograms per dry standard cubic meter (total mass), corrected to 7% oxygen.

(b) Compliance with this emission limitation shall be based on the average of three (3) consecutive test runs.

008 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) Carbon monoxide emissions per combustor shall not exceed any of the following:

- (1) 100 ppm_{dv}, corrected to 7% oxygen, calculated as a 24-hour block arithmetic average using CEMs; and
- (2) 29.95 lbs/hr.

(b) The CO emission limit applies at all times when municipal wastes are combusted, except during periods of start-up, and shut-down. Provided that the duration of the start-up or shut-down does not exceed three (3) hours per occurrence.

(c) Compliance with the CO limit shall be determined using a 24-hour block arithmetic average. The 24-hour block arithmetic average shall be calculated from one (1) hour arithmetic averages expressed in ppm_{dv}, corrected to 7% oxygen.

009 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

Hydrochloric acid (HCl) emissions per combustor shall be reduced by not less than 95% (by weight), on a 24-hour daily arithmetic basis. This reduction requirement shall be waived if the exhaust concentrations are less than 25 ppm_{dv}, corrected to 7% oxygen, on a 24-hour block arithmetic average, and 36.58 lbs/hr.

010 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) The Department reserves the right to establish and impose more stringent limits than those stated in this permit, based on the test results from each stack test performed, the CEM results and the dispersion modeling techniques as approved by the Department.

(b) Start-up of the combustor commences with the introduction of municipal waste to an empty combustor and does not include any warm up period when the combustor is combusting only a fossil fuel or any other auxiliary fuel, approved by the Department, and no municipal waste is being combusted.

(c) Shutdown of the combustor commences with the cessation of charging municipal waste for the express purpose of shutting down the combustor.

011 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) Total particulate matter (PM) emissions per combustor shall not exceed 5.80 lbs/hr and 0.010 gr/dscf, corrected to 7% oxygen.

(b) PM-10 emissions per combustor shall not exceed 0.012 gr/dscf, corrected to 7% oxygen, and 6.96 lbs/hr.

**SECTION D. Source Level Requirements**

(c) Compliance with the above emission limits shall be based on the average of three (3) consecutive test runs.

Throughput Restriction(s).**# 012 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

(a) Each combustor shall not be operated to exceed 161,000 lbs steam/hr, or 110% of the maximum demonstrated steam load during the most recent annual dioxin/furan performance test, whichever is less, except during the dioxin/furan performance test and the two (2) weeks preceding this test, when the steam load limitations do not apply.

(b) Only the following types of waste are permitted to be burned in the combustors:

- (1) municipal waste, as defined in 25 Pa. Code § 287.1;
- (2) municipal-like residual waste, as permitted in the Department's Waste Permit No. 400593, and the Miscellaneous Section of this permit; and
- (3) residual waste, as permitted in the Department's Waste Permit No. 400593, and the Miscellaneous Section of this permit.

(c) The residual waste (Form R waste list) accepted at the facility shall not exceed the following on a daily basis:

- (1) 10% of the total amount of waste, by weight; or
- (2) 500 tons

(d) The daily amount of residual waste and total amount of waste must be documented in accordance with the conditions of the Department's Waste Permit No. 400593.

(e) Any changes to the waste streams or types of waste shall be approved by the Department.

Control Device Efficiencies Restriction(s).**# 013 [25 Pa. Code §127.503]****Application information.**

Emissions from each combustor shall be controlled by individual dry acid gas scrubbers and pulse-jet cleaning type fabric collectors.

014 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

Compliance with the parameters set forth in the Conditions below assures compliance with the toxic metal emission limits in Condition #005 of this Section.

(a) Each combustor shall be operated to maintain the combustion gases temperature greater than 1800°F for at least one (1) second, calculated on an hourly average (1-hour block arithmetic). The temperature sensor shall be located at the furnace roof position approved by the Department for each combustor. The temperature at this location shall be maintained at greater than 850°F, (a Department approved reference temperature which corresponds to 1800°F for at least one second). Each combustor auxiliary burners shall be controlled automatically to maintain the combustion gases at the aforementioned temperature whenever refuse is being incinerated. In the event that furnace combustion gas flow rates change significantly from any previous alternate location verification test, or at the Department's request, the permittee shall perform a new alternative location verification and retention test.

(b) The flue gas temperature, measured at the particulate matter control device inlet and averaged arithmetically in 4-hour block, shall not exceed 300°F or 30°F above the maximum demonstrated particulate matter control device temperature, as defined in 40 C.F.R. §60.51b, whichever is lower, except during the annual dioxin/furan or mercury performance test and the 2 weeks preceding the annual dioxin/furan or mercury performance test, when the particulate matter control device inlet flue gas temperature limitation of 300°F is applicable.

(c) The above temperature limits apply and remain enforceable at all times, until and unless the Department grants a waiver

**SECTION D. Source Level Requirements**

in writing for the purpose of evaluating system performance, testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions.

II. TESTING REQUIREMENTS.**# 015 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

- (a) The permittee shall conduct annual performance test on each of the combustors for the the following pollutants:
- (1) total particulate matter, and PM-10 (including particle sizing);
 - (2) arsenic and compounds (expressed as arsenic);
 - (3) cadmium and compounds (expressed as cadmium);
 - (4) hexavalent chromium and compounds (expressed as chromium);
 - (5) nickel and compounds (expressed as nickel);
 - (6) lead and compounds (expressed as lead);
 - (7) beryllium and compounds (expressed as beryllium);
 - (8) mercury and compounds (expressed as mercury);
 - (9) PCDD and PCDF (expressed as 2,3,7,8 TCDD equivalents calculated according to the Department approved method and as total dioxin and furan);
 - (10) VOC (expressed as total hydrocarbons);
 - (11) PAH, including Benzo(a)pyrene;
 - (12) NO_x;
 - (13) SO₂;
 - (14) HCl;
 - (15) CO; and
 - (16) Visible emissions of fugitive combustion ash from the ash conveying system (Source ID 111)
- (b) If the emissions of PM, or PM10, or any of the toxic metals from any one of the combustors equal to or exceed 80% of the emission limitations, that combustor(s) shall be tested semiannually for each of the pollutants that equals to or exceeds 80% of the emission limitations. Testing frequency can revert back to annually when the tested emissions are less than 80% of the emission limitations for a consecutive period of 24-months, plus the permittee notifies the Department of such testing schedule reversion.
- (c) Performance testing for SO₂, NO_x, CO, and HCl may be substituted by CEM data to demonstrate compliance with the emission limitations. The permittee shall perform SO₂, NO_x, CO, HCl CEMS performance audit for each combustor during each annual performance test.
- (d) The amount of waste incinerated during a stack test shall be an adequate representation of the waste load to be processed by the facility.
- (e) Unless approved by the Department prior to the testing, the following procedures and test methods shall be used to determine compliance with the emission limits:
- (1) EPA reference method 1, for the sampling sites and traverse points.
 - (2) EPA reference method 3 or 3A, for the gas analysis.
 - (3) EPA reference methods 5, 201A/202 for PM and PM10. Both the front half and back half catches are to be analyzed and reported. However, only the front half catch is to be utilized in determining compliance.
 - (4) EPA reference method 9, for opacity.
 - (5) EPA reference method 29, for cadmium, lead and mercury, with a minimum sample volume to be 1.7 cubic meters for mercury. The percent weight reduction for mercury emissions shall be computed using the mercury concentrations measured at the inlet and outlet of the control device, corrected to 7% oxygen, (dry basis).
 - (6) EPA reference method 26, or 26A, for HCl.
 - (7) EPA reference method 19, for SO₂.
 - (8) EPA reference method 6, 6A, or 6C, for the RATA tests on the SO₂ CEMS.
 - (9) EPA reference method 19, for NO_x.

**SECTION D. Source Level Requirements**

- (10) EPA reference method 7, 7A, 7C, 7D, or 7E, for the RATA test on the NO_x CEMS.
 - (11) EPA reference method 10, 10A, or 10B, for CO.
 - (12) EPA reference method 23, for Dioxins/furans.
 - (13) EPA reference method 22, for visible emissions of fugitive combustion ash from the ash conveying system (Source ID 111).
- (f) Each combustor shall be equipped with test ports so that periodic measurement of the 1800°F for one (1) second residence time requirement can be conducted at the Department's request.

III. MONITORING REQUIREMENTS.**# 016 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

(a) The Department approved Continuous Emission Monitors (CEMs) shall be operated and maintained in accordance with 25 Pa. Code Chapter 139, the Department's "Continuous Source Monitoring Manual (CSM Manual)" (Revision No.5 - March 1993), and latest amendments ("CSM Manual") for the following:

- (1) CO monitored both upstream and downstream of the air pollution control equipment;
- (2) SO₂ monitored upstream and downstream of the air pollution control equipment;
- (3) NO_x monitored downstream of the air pollution control equipment;
- (4) HCL monitored downstream of the air pollution control equipment; and
- (5) Opacity of the exhaust gases.

(b) The following operating parameters shall be monitored and recorded continuously using the Department approved continuous monitoring system (CMS) for each combustor at the locations, if specified:

- (1) Oxygen, at both upstream and downstream of the air pollution control equipment;
- (2) Temperature of the gases exiting the combustor monitored at the furnace roof position approved by the Department;
- (3) Temperature of the gases at the inlet of each baghouse for the combustors.
- (4) The lime slurry injection rate to the dry acid gas scrubber; and
- (5) The steam load for each combustor in lb/hr and calculated in 4-hour block arithmetic averages.

(c) The permittee shall replace all thermocouples, at the furnace roof position of each combustor, on a quarterly basis with those that have been certified in accordance with NIST (National Institute of Standards and Testing).

(d) The permittee shall monitor and record supplemental fuel usage on a monthly basis.

(e) The permittee shall ensure that the Data Acquisition System maintains an uninterruptible power supply until the combustors are in a "process down" mode of operation.

(f) The selected parameters that define "normal operations" for CEM reporting purposes are when the dry inlet O₂ is less than or equal to 18.0% and the steam flow is greater than or equal to 50,000 lbs/hr. If either of the conditions is not met, the CEM reports the combustor as "process down" for that minute.

(g) The Department reserves the right to require the permittee to install, operate and maintain an uninterruptible power supply (UPS) for the continuous monitoring system at the facility. The requirement to install a UPS will be based on power outages and the loss of data and the affect on the CEM system.

017 [25 Pa. Code §139.111]**Municipal waste incinerator monitoring requirements.**

The CEMS and CMS shall be operated and maintained to achieve the following data availability standards:

- (a) Carbon Monoxide (CO) and Temperature: 100% valid hours/day, where a valid hour is defined as greater than or equal to 90% valid readings/hour (54 minutes).
- (b) Opacity and oxygen (O₂): Greater than or equal to 95% valid hours/day, where a valid hour is defined as greater than or

**SECTION D. Source Level Requirements**

equal to 75% valid readings/hour (45 minutes).

(c) Hydrochloric Acid (HCl), Sulfur dioxide (SO₂), and Nitrogen oxides (NO_x): Greater than or equal to 90% valid hours/month, where a valid hour is defined as greater than or equal to 75% valid readings/hour (45 minutes).

IV. RECORDKEEPING REQUIREMENTS.**# 018 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The permittee shall maintain, on-site, the following records for a minimum of five (5) years, in either paper copy, or computer-readable format, unless an alternative format is approved by the Department.

(a) the calendar date of each record.

(b) all emission averages from the continuous monitoring systems, which include: all one (1) hour average SO₂, NO_x, CO, and HCl emission concentrations, combustor unit load measurements, and PM control device inlet temperatures.

(c) all block geometric or arithmetic average concentrations, and percent reductions, as applicable, for SO₂, NO_x, CO, HCl, combustor unit load level, and PM control device inlet temperatures.

(d) identification of the calendar dates when any of the average emissions, percent reductions, or operating parameters recorded for SO₂, NO_x, CO, HCl, combustor unit load levels, particulate matter control device inlet temperature, or opacity, are above the applicable limits, with reasons for such exceedances and a description of the corrective action taken.

(e) identification of the calendar dates when the minimum hours of any of the data for SO₂, NO_x, CO, HCl emissions data, combustor unit load, PM control device inlet temperature and/or opacity have not been obtained, the reason for not obtaining sufficient data, and a description of corrective action taken.

(f) the results of the daily drift tests and quarterly accuracy determinations for the SO₂, NO_x, CO, HCl CEMs.

(g) results of all performance tests, including supporting calculations, along with maximum demonstrated unit load, and maximum PM control device inlet temperature.

(h) the names of the combustor chief facility operator, shift supervisors, and control room operators who have been fully certified, or provisionally certified, by the American Society of Mechanical Engineers (ASME) or an equivalent State-approved certification, including the dates of initial and renewal certifications and documentation of current certification. This subcondition does not apply to those individuals who have obtained full certification from the ASME on or before August 23, 1999.

(i) the names of the combustor chief facility operator, shift supervisors, and control room operators who have completed the EPA municipal waste combustor operator training course or a State-approved equivalent course, including documentation of training completion. Those chief facility operators, shift supervisors and control room operators who have obtained full certification prior to August 23, 1999, do not need to be recertified.

(j) the supplemental fuel usage.

V. REPORTING REQUIREMENTS.**# 019 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

(a) The permittee shall submit, to both the USEPA and the Department, semiannual reports that shall include the following information :

(1) A list of PM, lead, cadmium, opacity, mercury, dioxin/furans, and fugitive ash emission levels achieved during the performance tests.

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- (2) A list of the highest emission level recorded for SO₂, NO_x, CO, HCl, municipal waste combustor unit load level, and PM control device inlet temperature based on the data recorded using CMS.
- (3) The highest opacity level measured and recorded.
- (4) The total number of hours per calendar quarter and hours per calendar year that valid data for SO_x, NO_x, CO, HCl, municipal waste combustor unit load, or PM control device inlet temperature data were not obtained.
- (5) The total number of hours that data for SO₂, NO_x, CO, HCl, combustor load, and PM control device inlet temperature were excluded from the calculation of average emission concentrations of parameters.
- (b) The semiannual reports shall include information from the preceding calendar year for the year being reported, in order to provide the Department with a summary of the performance of this facility over a 2-year period.
- (c) The semiannual report shall include the following information for any recorded pollutant or parameter that does not comply with the pollutant or parameter limit:
- (1) SO₂, NO_x, CO, HCl, combustor load level, PM control device inlet temperature, and opacity.
 - (2) Any exceedance of the applicable levels for the following: PM, opacity, mercury, cadmium, lead, dioxin/furans, and fugitive ash. A copy of the test report documenting the emission levels and the corrective action taken, shall accompany the report.
- (d) The semiannual reports shall be submitted as a paper copy, postmarked on or before August 1 and February 1 following the proceeding 6-month period ending each December and June, respectively.
- (e) Temperature values submitted in each quarterly report shall consist of actual temperature values plus 950°F, the difference measured at the surrogate location and the demonstrated 1800°F for one (1) second retention time location.
- (f) All CEM reports, including CEMS violations, shall be submitted to the Department within thirty (30) days after each quarter, unless otherwise approved the Department. The Department reserves the right to require the report submissions with a format acceptable to the Department.
- (g) The permittee shall submit the following reports:
- (1) a semi annual deviation report, due by October 1, of each year, for the period covering January 1 through June 30 of the same year. Note: The annual certification of compliance fulfills the obligation for the second deviation reporting period (July 1 through December 31 of the previous year).
 - (2) For those contaminants monitored by a Department certified CEMS for which the Department's Enforcement Policy - Continuous Emission Monitoring System (CEMS) established penalties for excess emissions, the aforementioned notification and reporting requirements shall be waived.

VI. WORK PRACTICE REQUIREMENTS.

020 [25 Pa. Code §127.512]
Operating permit terms and conditions.

(a) Combustor Operation Requirements

(1) No solid waste shall be charged into the combustor(s) until equilibrium has been attained in the furnace zones and the temperature of the combustion gases reach 1800°F (based upon a surrogate temperature of 850°F as displayed on the facility CEMs) for one (1) second of retention time when the combustor is empty. All control equipment shall be operational and functioning properly prior to the introduction of solid waste into the combustor(s).

(2) During the process of all planned shut downs of each combustor, auxiliary burners shall be used to ensure that the temperature of the combustion gases does not drop below 1600°F while any waste material is still being incinerated. All

**SECTION D. Source Level Requirements**

control equipment shall be operational and functioning properly until all of the solid waste is incinerated.

(3) The charging of waste to each combustor shall automatically cease through the use of an interlock system, if:

(A) The combustor temperature measured at the furnace roof, at the Department approved location, drops below 650°F, (a Department approved reference temperature which corresponds to 1600°F), for a 15-minute period, or,

(B) The CO emissions exceed 600 ppmv, corrected to 7% oxygen on a dry basis for a period of fifteen (15) minutes (this requirement is waived during the startup periods), or

(C) The flue gas oxygen (as measured at the oxygen monitor upstream of the control device) level drops below 3% (wet basis or equivalent dry) for a 15-minute period, or,

(D) The opacity of the exhaust gases is equal to or greater than 10% for a period of 15 minutes.

(4) An adequate spare parts inventory shall be maintained to ensure timely repairs of major component malfunctions.

(b) Operator Training and Certification Requirements

(1) All personnel involved with the operation and maintenance of the combustors, associated pollution control equipment and monitoring equipment shall complete the comprehensive training program as specified in 40 C.F.R. §§60.56a and 60.54b, and according to the schedules specified in 40 CFR §60.39b(c)(4). This program includes operator training to identify waste material and actions to be taken to correct conditions which result from the initiation of the interlock system.

(2) Each facility operator and shift supervisor shall obtain and maintain a current provisional operator certification from either the American Society of Mechanical Engineers (ASME) or a state certification program, and each shall have completed full certification or shall have scheduled a full certification exam with either the American Society of Mechanical Engineers or a State Certification program.

(3) Except as provided in subcondition (i) below, each combustor shall not be operated at any time unless one of the following people is on duty at the source:

(A) A fully certified chief facility operator,

(B) A provisionally certified chief facility operator who is scheduled to take the full certification exam,

(C) A fully certified shift supervisor, or

(D) A provisionally certified shift supervisor who is scheduled to take the full certification exam.

(4) Stand-In Provisions

(A) If one of the persons, listed in Condition (b)(3) above, must leave the facility during their operating shift, a provisionally certified control room operator who is on-site, may stand in.

(B) A provisionally certified control room operator may stand in when the chief facility operator or shift supervisor is off-site for more than twelve (12) hours (a normal work shift), but less than two (2) weeks for normal off-site activities including: attending meetings, conferences, training, work travel, temporary reassignment, personal vacation, sick leave, family leave or similar activities. The permittee shall notify the Department, in writing, (by facsimile), within 24 hours, that the stand-in period will exceed twelve (12) hours (a normal work shift).

(5) In the event that the medical conditions, temporary reassignment, job transfer, resignation, dismissal or other circumstances beyond the permittee's control results in or is expected to result in the absence of the chief facility operator or shift supervisor for a period exceeding two (2) weeks, the permittee shall notify the Department in writing and identify what conditions resulted in such absence and what corrective actions have been taken to correct such absence. At the Department's request, the permittee shall prepare written status summary reports demonstrating that a good faith effort has been made and continues to be made to correct the conditions resulting in the absence of the chief facility operator or shift supervisor.

(6) A provisionally certified operator who is newly promoted or recently transferred to a shift supervisor position or a chief facility operator position at the municipal waste combustion unit may perform the duties of the certified chief facility operator or certified shift supervisor without notice to, or approval by, the Department for up to six months before taking the ASME QRO certification exam.

**SECTION D. Source Level Requirements**

(7) The permittee shall review the operating manual with each person who has responsibilities affecting the operation of this facility including, but not limited to: chief facility operators, shift supervisors, control room operators, ash handlers, maintenance personnel, and crane/load operators.

(8) The operating manual review shall include, but not be limited to: operator training to identify waste materials referred to as large non-combustible bulky materials, combustible bulky materials, unacceptable waste, as defined in this permit, and action to be taken to correct conditions which result from abnormal/emergency operation, running and/or shutdown that would cause the initiation of the interlock system.

(9) Each operator shall undergo initial training the date prior to the day the person assumes responsibilities affecting the combustor unit operation, and annually thereafter.

(10) The operating manual shall be kept in a readily accessible location for all persons required to undergo training, and be available to the USEPA and/or the Department upon request.

(11) The permittee shall keep and update on a yearly basis a site-specific operating manual that shall, at a minimum, address the following:

- (A) a summary of the applicable standards under this Operating Permit;
- (B) a description of basic combustion theory applicable to the combustor(s);
- (C) procedures for handling, receiving, and feeding municipal solid waste;
- (D) combustor startup, shutdown, and malfunction provisions;
- (E) procedures for maintaining proper combustion air supply levels;
- (F) procedures for operating the combustors within the standards established under this Operating Permit;
- (G) procedures for responding to periodic upset or off-specification conditions;
- (H) procedures for minimizing particulate matter carryover;
- (I) procedures for ash handling;
- (J) procedures for monitoring combustion emissions;
- (K) procedures for reporting and recordkeeping;
- (L) procedures for responding to emergency situations; and
- (M) procedures for monitoring the degree of waste burnout.

(c) Waste Management

(1) The following wastes or materials shall be removed from the tipping room floor for appropriate disposal:

- (A) Unacceptable waste, visible hazardous materials, and visible unapproved residual waste as defined by 25 Pa. Code § 287.1 of the Bureau of Waste Management Regulations;
- (B) Large non-combustible bulky materials, including visible automotive batteries;
- (C) Combustible bulky materials.

(2) The amount of solid waste material stored in the tipping room shall be less than the amount of solid waste material which can be reasonably incinerated within 120 hours of its delivery. If there is reason to believe that the combustor(s) are not capable of incinerating the solid waste material specified in the time frame above, the Department shall be notified in accordance with the malfunction reporting condition of this permit. No additional waste material shall be accepted and all the solid waste material shall be removed, if needed, to prevent the escape of odor beyond the property line. No air shall be exhausted to the outdoor atmosphere from this building during such an occurrence without being treated in the combustor(s) unless otherwise authorized by the Department.

(3) Except recyclable materials, open storage of solid waste outside of a building is prohibited.

(4) All wastes or materials which can be airborne or spilled shall be transported in closed containers or tarped trucks.

(d) Tipping Area Management

(1) The tipping area shall be operated at a negative pressure, when any combustor is in operation. The air passing

**SECTION D. Source Level Requirements**

through all natural draft openings surrounding the tipping floor, including the MWC charging area, shall flow inward continuously.

(2) To ensure negative pressure on the tipping area, at a minimum, the permittee shall:

- (A) limit the number of open entrance and exit doors to the tipping floor to one in each direction;
- (B) close all truck delivery doors to the tipping floor between 8:00 pm and 5:00 am every day and all day on Sunday;
- (C) use and maintain plastic flaps or other equivalent shielding to reduce the effective opening area on any open truck delivery door to the tipping floor; and
- (D) on a daily basis, inspect and log that all roof vents over the tipping floor and combustor charging chutes are closed and that all tipping floor doors and openings not in use that day are closed.

(e) The permittee shall operate and maintain a telephone dial-up telemetry system which has been approved by the Department, and is consistent with the "Air Quality Compliance Assurance Policy for Municipal Waste Incinerators", July 1989, as revised (CAP for MWI).

VII. ADDITIONAL REQUIREMENTS.

021 [25 Pa. Code §127.512]

Operating permit terms and conditions.

- (a) The combustors are subject to the Department's Air Quality Compliance Assurance Policy (CAP) for Municipal Waste Incinerators finalized and signed by the Department on July 12, 1989, and its latest amendments.
- (b) The combustors are subject to the provisions of EPA approved State section 111(d)/129 plan implementing 40 C.F.R. 60 subpart Cb for Large Municipal Waste Combustors, dated April 27, 1998 (67 FR 68935).
- (c) The design, construction, and operation of each combustor as stated in the Plan Approval Application, in accordance with the Department's BAT for MWI and its subsequent amendments issued up to the issuance of the Plan Approval and the conditions of the Plan Approval shall be adhered to. Department approval must be obtained prior to modification of any of the design, construction, and operation of each combustor.
- (d) The combustors are not subject to the provisions of 40 C.F.R. 60 Subpart Db as per 40 C.F.R. §60.40b(k).

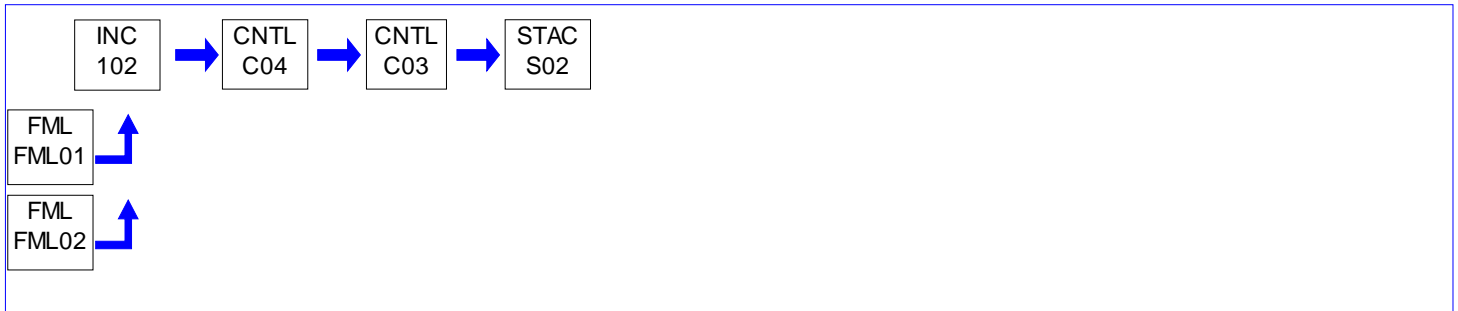
***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

Source ID: 102

Source Name: ROTARY COMBUSTER 2

Source Capacity/Throughput:

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

(a) Nitrogen Oxide (NO_x) emissions per combustor, expressed as NO₂, shall not exceed any of the following:

- (1) 180 ppmdv, corrected to 7% oxygen, on a 24-hour block arithmetic average using CEMs;
- (2) 88.56 lbs/hr; and
- (3) 0.42 lbs/MMBtu.

(b) The above NO_x limits are a result of controlled combustion. This control was determined by the Department as being Reasonably Available Control Technology (RACT) for emissions of NO_x (66 FR 54699 and 40 C.F.R. §52.2063).

(c) The NO_x emission limit applies at all times when municipal wastes are combusted, except during periods of start-up, and shut-down, provided that the duration of the start-up or shut-down does not exceed three (3) hours per occurrence.

002 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) The following annual ambient concentrations, expressed in micro-grams/cubic meter (UG/DSCM), shall not be exceeded. To demonstrate compliance with the following annual ambient concentrations, the permittee shall calculate the concentrations using the actual stack emission rates and exhaust parameters from each stack test specified for the combustor(s), and the dispersion modeling techniques used in the application, as approved by the Department. A certification shall be supplied to the Department stating compliance with maximum allowable ambient concentrations with every stack test report.

PCDD & PCDF, expressed as 2,3,7,8 TCDD equivalents* 0.30 x 10E-7

Arsenic and Compounds 0.23 x 10E-3

Beryllium and Compounds 0.42 x 10E-3

Cadmium and Compounds 0.56 x 10E-3

Nickel and Compounds 0.33 x 10E-2

Hexavalent Chromium and Compounds 0.83 x 10E-4

Lead and Compounds 0.09

Mercury and Compounds 0.024

Hydrogen Chloride 7.0

Benzo(a)pyrene 0.59 x 10E-3

(b) Ambient air quality analysis shall be redone if there is a modification in emission limits or for any parameter that exceeds the applicable stack test limitation during any stack test series.

(c) The permittee may be required to resume full modeling if the Department determines that a decrease in either volumetric flow rate and/or stack temperature has a significant adverse impact on the ambient concentration.

* Polychlorinated dibenzo-p-dioxins ("PCDD") and polychlorinated dibenzofurans ("PCDF") expressed as 2, 3, 7, 8

**SECTION D. Source Level Requirements**

tetrachlorinated dibenzo-p-dioxins ("TCDD") equivalents using toxicity equivalents factors ("TEFS") as described in the Department's BAT and calculated according to PADEP approved method.

003 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) VOC emissions, expressed as total hydrocarbons, shall not exceed 37.6 pounds per hour as an aggregate emission rate for the six (6) combustors. This VOC emission limit is a determination of RACT for VOC emissions (66 FR 54699 and 40 C.F.R. §52.2063).

(b) Compliance with this limitation shall be based on the average of three (3) consecutive test runs.

(c) This emissions cap does not provide any relief from obtaining a plan approval for any future physical change or change in the method of operation of any of the combustors. Future applicability determinations must consider the baseline actual emissions of the emissions units and not the cap. The latter is true even if the company does not request a change in the compliance cap. Furthermore, by accepting this cap and agreeing to consider the six combustors as one emissions unit for NSR/PSD purposes, any future applicability determinations must involve all six combustors, e.g. should major NSR/PSD be triggered for any one combustor or process change, BACT/LAER is required for all six combustors.

004 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

SO₂ emissions, per combustor, shall not exceed any of the following:

(a) 68.45 lbs/hr; and

(b) 29 ppm_{dv}, corrected to 7% oxygen, or shall be reduced by no less than 80% (by weight) on a 24-hour block geometric average using CEMs, whichever is less stringent.

005 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) The toxic metal emissions per combustor shall not exceed any of the following:

(1) Emission concentration, measured in ug/dscm and corrected to 7% oxygen:

Arsenic and Compounds 7.2

Beryllium and Compounds 0.2

Cadmium and Compounds 15.8

Hexavalent Chromium and Compounds 2.3

Nickel and Compounds 25.0

Lead and Compounds 166.0

Mercury and Compounds 50 or 15 percent of the potential mercury emission concentration (85-percent reduction by weight), whichever is less stringent.

(2) Emission rate (lbs/hr) was based on an exhaust rate of 68,679 dscfm, at 7% oxygen.

Arsenic and Compounds 0.00185

Beryllium and Compounds 0.000051

Cadmium and Compounds 0.00406

Hexavalent Chromium and Compounds 0.000591

Nickel and Compounds 0.00643

Lead and Compounds 0.0423

Mercury and Compounds 0.029

(b) Compliance with the emission concentration limits shall be documented through stack tests for each combustor. The results shall be based on ppm_{dv} or ug/dscm, as appropriate, and corrected to 7% oxygen.

006 [25 Pa. Code §127.512]

**SECTION D. Source Level Requirements****Operating permit terms and conditions.**

(a) Visible air contaminants from any combustor stack shall not be emitted in such a manner that the opacity (measured by CEMS) of the emissions is equal to or greater than

- (1) 10% for a period aggregating more than three (3) minutes in any one (1) hour; or
- (2) 30% at any time.

(b) The above visible emission limitations do not apply in either of the following instances:

- (1) when the presence of uncombined water is the only reason for failure of the emission to meet the limitations; or
- (2) when the emission results from sources specified in 25 Pa. Code §123.1(a).

007 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) Total mass dioxin/furan emissions per combustor shall not exceed 30 nanograms per dry standard cubic meter (total mass), corrected to 7% oxygen.

(b) Compliance with this emission limitation shall be based on the average of three (3) consecutive test runs.

008 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) Carbon monoxide emissions per combustor shall not exceed any of the following:

- (1) 100 ppm_{dv}, corrected to 7% oxygen, calculated as a 24-hour block arithmetic average using CEMs; and
- (2) 29.95 lbs/hr.

(b) The CO emission limit applies at all times when municipal wastes are combusted, except during periods of start-up, and shut-down. Provided that the duration of the start-up or shut-down does not exceed three (3) hours per occurrence.

(c) Compliance with the CO limit shall be determined using a 24-hour block arithmetic average. The 24-hour block arithmetic average shall be calculated from one (1) hour arithmetic averages expressed in ppm_{dv}, corrected to 7% oxygen.

009 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

Hydrochloric acid (HCl) emissions per combustor shall be reduced by not less than 95% (by weight), on a 24-hour daily arithmetic basis. This reduction requirement shall be waived if the exhaust concentrations are less than 25 ppm_{dv}, corrected to 7% oxygen, on a 24-hour block arithmetic average, and 36.58 lbs/hr.

010 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) The Department reserves the right to establish and impose more stringent limits than those stated in this permit, based on the test results from each stack test performed, the CEM results and the dispersion modeling techniques as approved by the Department.

(b) Start-up of the combustor commences with the introduction of municipal waste to an empty combustor and does not include any warm up period when the combustor is combusting only a fossil fuel or any other auxiliary fuel, approved by the Department, and no municipal waste is being combusted.

(c) Shutdown of the combustor commences with the cessation of charging municipal waste for the express purpose of shutting down the combustor.

011 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) Total particulate matter (PM) emissions per combustor shall not exceed 5.80 lbs/hr and 0.010 gr/dscf, corrected to 7% oxygen.

(b) PM-10 emissions per combustor shall not exceed 0.012 gr/dscf, corrected to 7% oxygen, and 6.96 lbs/hr.

**SECTION D. Source Level Requirements**

(c) Compliance with the above emission limits shall be based on the average of three (3) consecutive test runs.

Throughput Restriction(s).**# 012 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

(a) Each combustor shall not be operated to exceed 161,000 lbs steam/hr, or 110% of the maximum demonstrated steam load during the most recent annual dioxin/furan performance test, whichever is less, except during the dioxin/furan performance test and the two (2) weeks preceding this test, when the steam load limitations do not apply.

(b) Only the following types of waste are permitted to be burned in the combustors:

- (1) municipal waste, as defined in 25 Pa. Code § 287.1;
- (2) municipal-like residual waste, as permitted in the Department's Waste Permit No. 400593, and the Miscellaneous Section of this permit; and
- (3) residual waste, as permitted in the Department's Waste Permit No. 400593, and the Miscellaneous Section of this permit.

(c) The residual waste (Form R waste list) accepted at the facility shall not exceed the following on a daily basis:

- (1) 10% of the total amount of waste, by weight; or
- (2) 500 tons

(d) The daily amount of residual waste and total amount of waste must be documented in accordance with the conditions of the Department's Waste Permit No. 400593.

(e) Any changes to the waste streams or types of waste shall be approved by the Department.

Control Device Efficiencies Restriction(s).**# 013 [25 Pa. Code §127.503]****Application information.**

Emissions from each combustor shall be controlled by individual dry acid gas scrubbers and pulse-jet cleaning type fabric collectors.

014 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

Compliance with the parameters set forth in the Conditions below assures compliance with the toxic metal emission limits in Condition #005 of this Section.

(a) Each combustor shall be operated to maintain the combustion gases temperature greater than 1800°F for at least one (1) second, calculated on an hourly average (1-hour block arithmetic). The temperature sensor shall be located at the furnace roof position approved by the Department for each combustor. The temperature at this location shall be maintained at greater than 850°F, (a Department approved reference temperature which corresponds to 1800°F for at least one second). Each combustor auxiliary burners shall be controlled automatically to maintain the combustion gases at the aforementioned temperature whenever refuse is being incinerated. In the event that furnace combustion gas flow rates change significantly from any previous alternate location verification test, or at the Department's request, the permittee shall perform a new alternative location verification and retention test.

(b) The flue gas temperature, measured at the particulate matter control device inlet and averaged arithmetically in 4-hour block, shall not exceed 300°F or 30°F above the maximum demonstrated particulate matter control device temperature, as defined in 40 C.F.R. §60.51b, whichever is lower, except during the annual dioxin/furan or mercury performance test and the 2 weeks preceding the annual dioxin/furan or mercury performance test, when the particulate matter control device inlet flue gas temperature limitation of 300°F is applicable.

(c) The above temperature limits apply and remain enforceable at all times, until and unless the Department grants a waiver

**SECTION D. Source Level Requirements**

in writing for the purpose of evaluating system performance, testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions.

II. TESTING REQUIREMENTS.**# 015 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

- (a) The permittee shall conduct annual performance test on each of the combustors for the the following pollutants:
- (1) total particulate matter, and PM-10 (including particle sizing);
 - (2) arsenic and compounds (expressed as arsenic);
 - (3) cadmium and compounds (expressed as cadmium);
 - (4) hexavalent chromium and compounds (expressed as chromium);
 - (5) nickel and compounds (expressed as nickel);
 - (6) lead and compounds (expressed as lead);
 - (7) beryllium and compounds (expressed as beryllium);
 - (8) mercury and compounds (expressed as mercury);
 - (9) PCDD and PCDF (expressed as 2,3,7,8 TCDD equivalents calculated according to the Department approved method and as total dioxin and furan);
 - (10) VOC (expressed as total hydrocarbons);
 - (11) PAH, including Benzo(a)pyrene;
 - (12) NO_x;
 - (13) SO₂;
 - (14) HCl;
 - (15) CO; and
 - (16) Visible emissions of fugitive combustion ash from the ash conveying system (Source ID 111)
- (b) If the emissions of PM, or PM10, or any of the toxic metals from any one of the combustors equal to or exceed 80% of the emission limitations, that combustor(s) shall be tested semiannually for each of the pollutants that equals to or exceeds 80% of the emission limitations. Testing frequency can revert back to annually when the tested emissions are less than 80% of the emission limitations for a consecutive period of 24-months, plus the permittee notifies the Department of such testing schedule reversion.
- (c) Performance testing for SO₂, NO_x, CO, and HCl may be substituted by CEM data to demonstrate compliance with the emission limitations. The permittee shall perform SO₂, NO_x, CO, HCl CEMS performance audit for each combustor during each annual performance test.
- (d) The amount of waste incinerated during a stack test shall be an adequate representation of the waste load to be processed by the facility.
- (e) Unless approved by the Department prior to the testing, the following procedures and test methods shall be used to determine compliance with the emission limits:
- (1) EPA reference method 1, for the sampling sites and traverse points.
 - (2) EPA reference method 3 or 3A, for the gas analysis.
 - (3) EPA reference methods 5, 201A/202 for PM and PM10. Both the front half and back half catches are to be analyzed and reported. However, only the front half catch is to be utilized in determining compliance.
 - (4) EPA reference method 9, for opacity.
 - (5) EPA reference method 29, for cadmium, lead and mercury, with a minimum sample volume to be 1.7 cubic meters for mercury. The percent weight reduction for mercury emissions shall be computed using the mercury concentrations measured at the inlet and outlet of the control device, corrected to 7% oxygen, (dry basis).
 - (6) EPA reference method 26, or 26A, for HCl.
 - (7) EPA reference method 19, for SO₂.
 - (8) EPA reference method 6, 6A, or 6C, for the RATA tests on the SO₂ CEMS.
 - (9) EPA reference method 19, for NO_x.

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- (10) EPA reference method 7, 7A, 7C, 7D, or 7E, for the RATA test on the NO_x CEMS.
 - (11) EPA reference method 10, 10A, or 10B, for CO.
 - (12) EPA reference method 23, for Dioxins/furans.
 - (13) EPA reference method 22, for visible emissions of fugitive combustion ash from the ash conveying system (Source ID 111).
- (f) Each combustor shall be equipped with test ports so that periodic measurement of the 1800°F for one (1) second residence time requirement can be conducted at the Department's request.

III. MONITORING REQUIREMENTS.**# 016 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

(a) The Department approved Continuous Emission Monitors (CEMs) shall be operated and maintained in accordance with 25 Pa. Code Chapter 139, the Department's "Continuous Source Monitoring Manual (CSM Manual)" (Revision No.5 - March 1993), and latest amendments ("CSM Manual") for the following:

- (1) CO monitored both upstream and downstream of the air pollution control equipment;
- (2) SO₂ monitored upstream and downstream of the air pollution control equipment;
- (3) NO_x monitored downstream of the air pollution control equipment;
- (4) HCL monitored downstream of the air pollution control equipment; and
- (5) Opacity of the exhaust gases.

(b) The following operating parameters shall be monitored and recorded continuously using the Department approved continuous monitoring system (CMS) for each combustor at the locations, if specified:

- (1) Oxygen, at both upstream and downstream of the air pollution control equipment;
- (2) Temperature of the gases exiting the combustor monitored at the furnace roof position approved by the Department;
- (3) Temperature of the gases at the inlet of each baghouse for the combustors.
- (4) The lime slurry injection rate to the dry acid gas scrubber; and
- (5) The steam load for each combustor in lb/hr and calculated in 4-hour block arithmetic averages.

(c) The permittee shall replace all thermocouples, at the furnace roof position of each combustor, on a quarterly basis with those that have been certified in accordance with NIST (National Institute of Standards and Testing).

(d) The permittee shall monitor and record supplemental fuel usage on a monthly basis.

(e) The permittee shall ensure that the Data Acquisition System maintains an uninterruptible power supply until the combustors are in a "process down" mode of operation.

(f) The selected parameters that define "normal operations" for CEM reporting purposes are when the dry inlet O₂ is less than or equal to 18.0% and the steam flow is greater than or equal to 50,000 lbs/hr. If either of the conditions is not met, the CEM reports the combustor as "process down" for that minute.

(g) The Department reserves the right to require the permittee to install, operate and maintain an uninterruptible power supply (UPS) for the continuous monitoring system at the facility. The requirement to install a UPS will be based on power outages and the loss of data and the affect on the CEM system.

017 [25 Pa. Code §139.111]**Municipal waste incinerator monitoring requirements.**

The CEMS and CMS shall be operated and maintained to achieve the following data availability standards:

- (a) Carbon Monoxide (CO) and Temperature: 100% valid hours/day, where a valid hour is defined as greater than or equal to 90% valid readings/hour (54 minutes).
- (b) Opacity and oxygen (O₂): Greater than or equal to 95% valid hours/day, where a valid hour is defined as greater than or

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equal to 75% valid readings/hour (45 minutes).

(c) Hydrochloric Acid (HCl), Sulfur dioxide (SO₂), and Nitrogen oxides (NO_x): Greater than or equal to 90% valid hours/month, where a valid hour is defined as greater than or equal to 75% valid readings/hour (45 minutes).

IV. RECORDKEEPING REQUIREMENTS.**# 018 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The permittee shall maintain, on-site, the following records for a minimum of five (5) years, in either paper copy, or computer-readable format, unless an alternative format is approved by the Department.

(a) the calendar date of each record.

(b) all emission averages from the continuous monitoring systems, which include: all one (1) hour average SO₂, NO_x, CO, and HCl emission concentrations, combustor unit load measurements, and PM control device inlet temperatures.

(c) all block geometric or arithmetic average concentrations, and percent reductions, as applicable, for SO₂, NO_x, CO, HCl, combustor unit load level, and PM control device inlet temperatures.

(d) identification of the calendar dates when any of the average emissions, percent reductions, or operating parameters recorded for SO₂, NO_x, CO, HCl, combustor unit load levels, particulate matter control device inlet temperature, or opacity, are above the applicable limits, with reasons for such exceedances and a description of the corrective action taken.

(e) identification of the calendar dates when the minimum hours of any of the data for SO₂, NO_x, CO, HCl emissions data, combustor unit load, PM control device inlet temperature and/or opacity have not been obtained, the reason for not obtaining sufficient data, and a description of corrective action taken.

(f) the results of the daily drift tests and quarterly accuracy determinations for the SO₂, NO_x, CO, HCl CEMs.

(g) results of all performance tests, including supporting calculations, along with maximum demonstrated unit load, and maximum PM control device inlet temperature.

(h) the names of the combustor chief facility operator, shift supervisors, and control room operators who have been fully certified, or provisionally certified, by the American Society of Mechanical Engineers (ASME) or an equivalent State-approved certification, including the dates of initial and renewal certifications and documentation of current certification. This subcondition does not apply to those individuals who have obtained full certification from the ASME on or before August 23, 1999.

(i) the names of the combustor chief facility operator, shift supervisors, and control room operators who have completed the EPA municipal waste combustor operator training course or a State-approved equivalent course, including documentation of training completion. Those chief facility operators, shift supervisors and control room operators who have obtained full certification prior to August 23, 1999, do not need to be recertified.

(j) the supplemental fuel usage.

V. REPORTING REQUIREMENTS.**# 019 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

(a) The permittee shall submit, to both the USEPA and the Department, semiannual reports that shall include the following information :

(1) A list of PM, lead, cadmium, opacity, mercury, dioxin/furans, and fugitive ash emission levels achieved during the performance tests.

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- (2) A list of the highest emission level recorded for SO₂, NO_x, CO, HCl, municipal waste combustor unit load level, and PM control device inlet temperature based on the data recorded using CMS.
- (3) The highest opacity level measured and recorded.
- (4) The total number of hours per calendar quarter and hours per calendar year that valid data for SO_x, NO_x, CO, HCl, municipal waste combustor unit load, or PM control device inlet temperature data were not obtained.
- (5) The total number of hours that data for SO₂, NO_x, CO, HCl, combustor load, and PM control device inlet temperature were excluded from the calculation of average emission concentrations of parameters.
- (b) The semiannual reports shall include information from the preceding calendar year for the year being reported, in order to provide the Department with a summary of the performance of this facility over a 2-year period.
- (c) The semiannual report shall include the following information for any recorded pollutant or parameter that does not comply with the pollutant or parameter limit:
- (1) SO₂, NO_x, CO, HCl, combustor load level, PM control device inlet temperature, and opacity.
 - (2) Any exceedance of the applicable levels for the following: PM, opacity, mercury, cadmium, lead, dioxin/furans, and fugitive ash. A copy of the test report documenting the emission levels and the corrective action taken, shall accompany the report.
- (d) The semiannual reports shall be submitted as a paper copy, postmarked on or before August 1 and February 1 following the proceeding 6-month period ending each December and June, respectively.
- (e) Temperature values submitted in each quarterly report shall consist of actual temperature values plus 950°F, the difference measured at the surrogate location and the demonstrated 1800°F for one (1) second retention time location.
- (f) All CEM reports, including CEMS violations, shall be submitted to the Department within thirty (30) days after each quarter, unless otherwise approved the Department. The Department reserves the right to require the report submissions with a format acceptable to the Department.
- (g) The permittee shall submit the following reports:
- (1) a semi annual deviation report, due by October 1, of each year, for the period covering January 1 through June 30 of the same year. Note: The annual certification of compliance fulfills the obligation for the second deviation reporting period (July 1 through December 31 of the previous year).
 - (2) For those contaminants monitored by a Department certified CEMS for which the Department's Enforcement Policy - Continuous Emission Monitoring System (CEMS) established penalties for excess emissions, the aforementioned notification and reporting requirements shall be waived.

VI. WORK PRACTICE REQUIREMENTS.**# 020 [25 Pa. Code §127.512]
Operating permit terms and conditions.****(a) Combustor Operation Requirements**

(1) No solid waste shall be charged into the combustor(s) until equilibrium has been attained in the furnace zones and the temperature of the combustion gases reach 1800°F (based upon a surrogate temperature of 850°F as displayed on the facility CEMs) for one (1) second of retention time when the combustor is empty. All control equipment shall be operational and functioning properly prior to the introduction of solid waste into the combustor(s).

(2) During the process of all planned shut downs of each combustor, auxiliary burners shall be used to ensure that the temperature of the combustion gases does not drop below 1600°F while any waste material is still being incinerated. All

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control equipment shall be operational and functioning properly until all of the solid waste is incinerated.

(3) The charging of waste to each combustor shall automatically cease through the use of an interlock system, if:

(A) The combustor temperature measured at the furnace roof, at the Department approved location, drops below 650°F, (a Department approved reference temperature which corresponds to 1600°F), for a 15-minute period, or,

(B) The CO emissions exceed 600 ppmv, corrected to 7% oxygen on a dry basis for a period of fifteen (15) minutes (this requirement is waived during the startup periods), or

(C) The flue gas oxygen (as measured at the oxygen monitor upstream of the control device) level drops below 3% (wet basis or equivalent dry) for a 15-minute period, or,

(D) The opacity of the exhaust gases is equal to or greater than 10% for a period of 15 minutes.

(4) An adequate spare parts inventory shall be maintained to ensure timely repairs of major component malfunctions.

(b) Operator Training and Certification Requirements

(1) All personnel involved with the operation and maintenance of the combustors, associated pollution control equipment and monitoring equipment shall complete the comprehensive training program as specified in 40 C.F.R. §§60.56a and 60.54b, and according to the schedules specified in 40 CFR §60.39b(c)(4). This program includes operator training to identify waste material and actions to be taken to correct conditions which result from the initiation of the interlock system.

(2) Each facility operator and shift supervisor shall obtain and maintain a current provisional operator certification from either the American Society of Mechanical Engineers (ASME) or a state certification program, and each shall have completed full certification or shall have scheduled a full certification exam with either the American Society of Mechanical Engineers or a State Certification program.

(3) Except as provided in subcondition (i) below, each combustor shall not be operated at any time unless one of the following people is on duty at the source:

(A) A fully certified chief facility operator,

(B) A provisionally certified chief facility operator who is scheduled to take the full certification exam,

(C) A fully certified shift supervisor, or

(D) A provisionally certified shift supervisor who is scheduled to take the full certification exam.

(4) Stand-In Provisions

(A) If one of the persons, listed in Condition (b)(3) above, must leave the facility during their operating shift, a provisionally certified control room operator who is on-site, may stand in.

(B) A provisionally certified control room operator may stand in when the chief facility operator or shift supervisor is off-site for more than twelve (12) hours (a normal work shift), but less than two (2) weeks for normal off-site activities including: attending meetings, conferences, training, work travel, temporary reassignment, personal vacation, sick leave, family leave or similar activities. The permittee shall notify the Department, in writing, (by facsimile), within 24 hours, that the stand-in period will exceed twelve (12) hours (a normal work shift).

(5) In the event that the medical conditions, temporary reassignment, job transfer, resignation, dismissal or other circumstances beyond the permittee's control results in or is expected to result in the absence of the chief facility operator or shift supervisor for a period exceeding two (2) weeks, the permittee shall notify the Department in writing and identify what conditions resulted in such absence and what corrective actions have been taken to correct such absence. At the Department's request, the permittee shall prepare written status summary reports demonstrating that a good faith effort has been made and continues to be made to correct the conditions resulting in the absence of the chief facility operator or shift supervisor.

(6) A provisionally certified operator who is newly promoted or recently transferred to a shift supervisor position or a chief facility operator position at the municipal waste combustion unit may perform the duties of the certified chief facility operator or certified shift supervisor without notice to, or approval by, the Department for up to six months before taking the ASME QRO certification exam.

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(7) The permittee shall review the operating manual with each person who has responsibilities affecting the operation of this facility including, but not limited to: chief facility operators, shift supervisors, control room operators, ash handlers, maintenance personnel, and crane/load operators.

(8) The operating manual review shall include, but not be limited to: operator training to identify waste materials referred to as large non-combustible bulky materials, combustible bulky materials, unacceptable waste, as defined in this permit, and action to be taken to correct conditions which result from abnormal/emergency operation, running and/or shutdown that would cause the initiation of the interlock system.

(9) Each operator shall undergo initial training the date prior to the day the person assumes responsibilities affecting the combustor unit operation, and annually thereafter.

(10) The operating manual shall be kept in a readily accessible location for all persons required to undergo training, and be available to the USEPA and/or the Department upon request.

(11) The permittee shall keep and update on a yearly basis a site-specific operating manual that shall, at a minimum, address the following:

- (A) a summary of the applicable standards under this Operating Permit;
- (B) a description of basic combustion theory applicable to the combustor(s);
- (C) procedures for handling, receiving, and feeding municipal solid waste;
- (D) combustor startup, shutdown, and malfunction provisions;
- (E) procedures for maintaining proper combustion air supply levels;
- (F) procedures for operating the combustors within the standards established under this Operating Permit;
- (G) procedures for responding to periodic upset or off-specification conditions;
- (H) procedures for minimizing particulate matter carryover;
- (I) procedures for ash handling;
- (J) procedures for monitoring combustion emissions;
- (K) procedures for reporting and recordkeeping;
- (L) procedures for responding to emergency situations; and
- (M) procedures for monitoring the degree of waste burnout.

(c) Waste Management

(1) The following wastes or materials shall be removed from the tipping room floor for appropriate disposal:

- (A) Unacceptable waste, visible hazardous materials, and visible unapproved residual waste as defined by 25 Pa. Code § 287.1 of the Bureau of Waste Management Regulations;
- (B) Large non-combustible bulky materials, including visible automotive batteries;
- (C) Combustible bulky materials.

(2) The amount of solid waste material stored in the tipping room shall be less than the amount of solid waste material which can be reasonably incinerated within 120 hours of its delivery. If there is reason to believe that the combustor(s) are not capable of incinerating the solid waste material specified in the time frame above, the Department shall be notified in accordance with the malfunction reporting condition of this permit. No additional waste material shall be accepted and all the solid waste material shall be removed, if needed, to prevent the escape of odor beyond the property line. No air shall be exhausted to the outdoor atmosphere from this building during such an occurrence without being treated in the combustor(s) unless otherwise authorized by the Department.

(3) Except recyclable materials, open storage of solid waste outside of a building is prohibited.

(4) All wastes or materials which can be airborne or spilled shall be transported in closed containers or tarped trucks.

(d) Tipping Area Management

(1) The tipping area shall be operated at a negative pressure, when any combustor is in operation. The air passing

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through all natural draft openings surrounding the tipping floor, including the MWC charging area, shall flow inward continuously.

(2) To ensure negative pressure on the tipping area, at a minimum, the permittee shall:

- (A) limit the number of open entrance and exit doors to the tipping floor to one in each direction;
- (B) close all truck delivery doors to the tipping floor between 8:00 pm and 5:00 am every day and all day on Sunday;
- (C) use and maintain plastic flaps or other equivalent shielding to reduce the effective opening area on any open truck delivery door to the tipping floor; and
- (D) on a daily basis, inspect and log that all roof vents over the tipping floor and combustor charging chutes are closed and that all tipping floor doors and openings not in use that day are closed.

(e) The permittee shall operate and maintain a telephone dial-up telemetry system which has been approved by the Department, and is consistent with the "Air Quality Compliance Assurance Policy for Municipal Waste Incinerators", July 1989, as revised (CAP for MWI).

VII. ADDITIONAL REQUIREMENTS.

021 [25 Pa. Code §127.512]

Operating permit terms and conditions.

- (a) The combustors are subject to the Department's Air Quality Compliance Assurance Policy (CAP) for Municipal Waste Incinerators finalized and signed by the Department on July 12, 1989, and its latest amendments.
- (b) The combustors are subject to the provisions of EPA approved State section 111(d)/129 plan implementing 40 C.F.R. 60 subpart Cb for Large Municipal Waste Combustors, dated April 27, 1998 (67 FR 68935).
- (c) The design, construction, and operation of each combustor as stated in the Plan Approval Application, in accordance with the Department's BAT for MWI and its subsequent amendments issued up to the issuance of the Plan Approval and the conditions of the Plan Approval shall be adhered to. Department approval must be obtained prior to modification of any of the design, construction, and operation of each combustor.
- (d) The combustors are not subject to the provisions of 40 C.F.R. 60 Subpart Db as per 40 C.F.R. §60.40b(k).

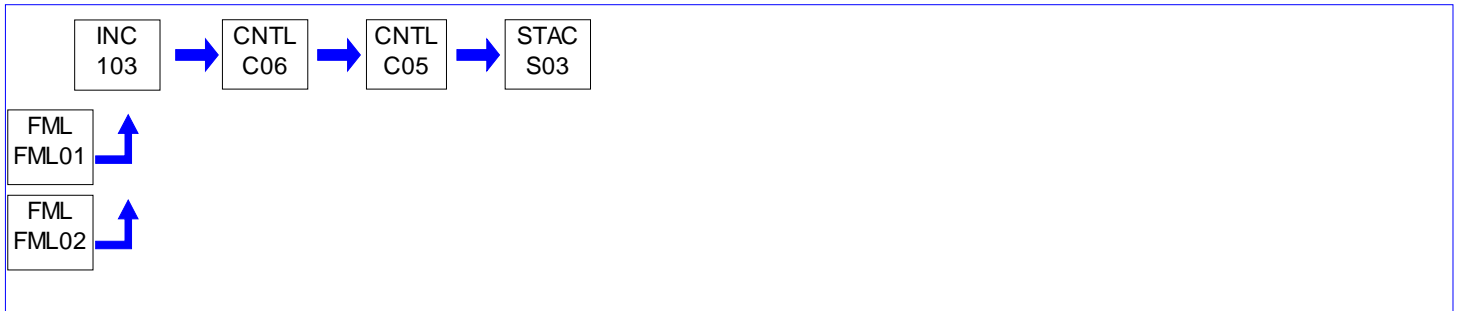
***** Permit Shield in Effect. *****

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Source ID: 103

Source Name: ROTARY COMBUSTER 3

Source Capacity/Throughput:

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

(a) Nitrogen Oxide (NO_x) emissions per combustor, expressed as NO₂, shall not exceed any of the following:

- (1) 180 ppmdv, corrected to 7% oxygen, on a 24-hour block arithmetic average using CEMs;
- (2) 88.56 lbs/hr; and
- (3) 0.42 lbs/MMBtu.

(b) The above NO_x limits are a result of controlled combustion. This control was determined by the Department as being Reasonably Available Control Technology (RACT) for emissions of NO_x (66 FR 54699 and 40 C.F.R. §52.2063).

(c) The NO_x emission limit applies at all times when municipal wastes are combusted, except during periods of start-up, and shut-down, provided that the duration of the start-up or shut-down does not exceed three (3) hours per occurrence.

002 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) The following annual ambient concentrations, expressed in micro-grams/cubic meter (UG/DSCM), shall not be exceeded. To demonstrate compliance with the following annual ambient concentrations, the permittee shall calculate the concentrations using the actual stack emission rates and exhaust parameters from each stack test specified for the combustor(s), and the dispersion modeling techniques used in the application, as approved by the Department. A certification shall be supplied to the Department stating compliance with maximum allowable ambient concentrations with every stack test report.

PCDD & PCDF, expressed as 2,3,7,8 TCDD equivalents* 0.30 x 10E-7

Arsenic and Compounds 0.23 x 10E-3

Beryllium and Compounds 0.42 x 10E-3

Cadmium and Compounds 0.56 x 10E-3

Nickel and Compounds 0.33 x 10E-2

Hexavalent Chromium and Compounds 0.83 x 10E-4

Lead and Compounds 0.09

Mercury and Compounds 0.024

Hydrogen Chloride 7.0

Benzo(a)pyrene 0.59 x 10E-3

(b) Ambient air quality analysis shall be redone if there is a modification in emission limits or for any parameter that exceeds the applicable stack test limitation during any stack test series.

(c) The permittee may be required to resume full modeling if the Department determines that a decrease in either volumetric flow rate and/or stack temperature has a significant adverse impact on the ambient concentration.

* Polychlorinated dibenzo-p-dioxins ("PCDD") and polychlorinated dibenzofurans ("PCDF") expressed as 2, 3, 7, 8

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tetrachlorinated dibenzo-p-dioxins ("TCDD") equivalents using toxicity equivalents factors ("TEFS") as described in the Department's BAT and calculated according to PADEP approved method.

003 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) VOC emissions, expressed as total hydrocarbons, shall not exceed 37.6 pounds per hour as an aggregate emission rate for the six (6) combustors. This VOC emission limit is a determination of RACT for VOC emissions (66 FR 54699 and 40 C.F.R. §52.2063).

(b) Compliance with this limitation shall be based on the average of three (3) consecutive test runs.

(c) This emissions cap does not provide any relief from obtaining a plan approval for any future physical change or change in the method of operation of any of the combustors. Future applicability determinations must consider the baseline actual emissions of the emissions units and not the cap. The latter is true even if the company does not request a change in the compliance cap. Furthermore, by accepting this cap and agreeing to consider the six combustors as one emissions unit for NSR/PSD purposes, any future applicability determinations must involve all six combustors, e.g. should major NSR/PSD be triggered for any one combustor or process change, BACT/LAER is required for all six combustors.

004 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

SO₂ emissions, per combustor, shall not exceed any of the following:

(a) 68.45 lbs/hr; and

(b) 29 ppm_{dv}, corrected to 7% oxygen, or shall be reduced by no less than 80% (by weight) on a 24-hour block geometric average using CEMs, whichever is less stringent.

005 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) The toxic metal emissions per combustor shall not exceed any of the following:

(1) Emission concentration, measured in ug/dscm and corrected to 7% oxygen:

Arsenic and Compounds 7.2

Beryllium and Compounds 0.2

Cadmium and Compounds 15.8

Hexavalent Chromium and Compounds 2.3

Nickel and Compounds 25.0

Lead and Compounds 166.0

Mercury and Compounds 50 or 15 percent of the potential mercury emission concentration (85-percent reduction by weight), whichever is less stringent.

(2) Emission rate (lbs/hr) was based on an exhaust rate of 68,679 dscfm, at 7% oxygen.

Arsenic and Compounds 0.00185

Beryllium and Compounds 0.000051

Cadmium and Compounds 0.00406

Hexavalent Chromium and Compounds 0.000591

Nickel and Compounds 0.00643

Lead and Compounds 0.0423

Mercury and Compounds 0.029

(b) Compliance with the emission concentration limits shall be documented through stack tests for each combustor. The results shall be based on ppm_{dv} or ug/dscm, as appropriate, and corrected to 7% oxygen.

006 [25 Pa. Code §127.512]

**SECTION D. Source Level Requirements****Operating permit terms and conditions.**

(a) Visible air contaminants from any combustor stack shall not be emitted in such a manner that the opacity (measured by CEMS) of the emissions is equal to or greater than

- (1) 10% for a period aggregating more than three (3) minutes in any one (1) hour; or
- (2) 30% at any time.

(b) The above visible emission limitations do not apply in either of the following instances:

- (1) when the presence of uncombined water is the only reason for failure of the emission to meet the limitations; or
- (2) when the emission results from sources specified in 25 Pa. Code §123.1(a).

007 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) Total mass dioxin/furan emissions per combustor shall not exceed 30 nanograms per dry standard cubic meter (total mass), corrected to 7% oxygen.

(b) Compliance with this emission limitation shall be based on the average of three (3) consecutive test runs.

008 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) Carbon monoxide emissions per combustor shall not exceed any of the following:

- (1) 100 ppm_{dv}, corrected to 7% oxygen, calculated as a 24-hour block arithmetic average using CEMs; and
- (2) 29.95 lbs/hr.

(b) The CO emission limit applies at all times when municipal wastes are combusted, except during periods of start-up, and shut-down. Provided that the duration of the start-up or shut-down does not exceed three (3) hours per occurrence.

(c) Compliance with the CO limit shall be determined using a 24-hour block arithmetic average. The 24-hour block arithmetic average shall be calculated from one (1) hour arithmetic averages expressed in ppm_{dv}, corrected to 7% oxygen.

009 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

Hydrochloric acid (HCl) emissions per combustor shall be reduced by not less than 95% (by weight), on a 24-hour daily arithmetic basis. This reduction requirement shall be waived if the exhaust concentrations are less than 25 ppm_{dv}, corrected to 7% oxygen, on a 24-hour block arithmetic average, and 36.58 lbs/hr.

010 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) The Department reserves the right to establish and impose more stringent limits than those stated in this permit, based on the test results from each stack test performed, the CEM results and the dispersion modeling techniques as approved by the Department.

(b) Start-up of the combustor commences with the introduction of municipal waste to an empty combustor and does not include any warm up period when the combustor is combusting only a fossil fuel or any other auxiliary fuel, approved by the Department, and no municipal waste is being combusted.

(c) Shutdown of the combustor commences with the cessation of charging municipal waste for the express purpose of shutting down the combustor.

011 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) Total particulate matter (PM) emissions per combustor shall not exceed 5.80 lbs/hr and 0.010 gr/dscf, corrected to 7% oxygen.

(b) PM-10 emissions per combustor shall not exceed 0.012 gr/dscf, corrected to 7% oxygen, and 6.96 lbs/hr.

**SECTION D. Source Level Requirements**

(c) Compliance with the above emission limits shall be based on the average of three (3) consecutive test runs.

Throughput Restriction(s).**# 012 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

(a) Each combustor shall not be operated to exceed 161,000 lbs steam/hr, or 110% of the maximum demonstrated steam load during the most recent annual dioxin/furan performance test, whichever is less, except during the dioxin/furan performance test and the two (2) weeks preceding this test, when the steam load limitations do not apply.

(b) Only the following types of waste are permitted to be burned in the combustors:

- (1) municipal waste, as defined in 25 Pa. Code § 287.1;
- (2) municipal-like residual waste, as permitted in the Department's Waste Permit No. 400593, and the Miscellaneous Section of this permit; and
- (3) residual waste, as permitted in the Department's Waste Permit No. 400593, and the Miscellaneous Section of this permit.

(c) The residual waste (Form R waste list) accepted at the facility shall not exceed the following on a daily basis:

- (1) 10% of the total amount of waste, by weight; or
- (2) 500 tons

(d) The daily amount of residual waste and total amount of waste must be documented in accordance with the conditions of the Department's Waste Permit No. 400593.

(e) Any changes to the waste streams or types of waste shall be approved by the Department.

Control Device Efficiencies Restriction(s).**# 013 [25 Pa. Code §127.503]****Application information.**

Emissions from each combustor shall be controlled by individual dry acid gas scrubbers and pulse-jet cleaning type fabric collectors.

014 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

Compliance with the parameters set forth in the Conditions below assures compliance with the toxic metal emission limits in Condition #005 of this Section.

(a) Each combustor shall be operated to maintain the combustion gases temperature greater than 1800°F for at least one (1) second, calculated on an hourly average (1-hour block arithmetic). The temperature sensor shall be located at the furnace roof position approved by the Department for each combustor. The temperature at this location shall be maintained at greater than 850°F, (a Department approved reference temperature which corresponds to 1800°F for at least one second). Each combustor auxiliary burners shall be controlled automatically to maintain the combustion gases at the aforementioned temperature whenever refuse is being incinerated. In the event that furnace combustion gas flow rates change significantly from any previous alternate location verification test, or at the Department's request, the permittee shall perform a new alternative location verification and retention test.

(b) The flue gas temperature, measured at the particulate matter control device inlet and averaged arithmetically in 4-hour block, shall not exceed 300°F or 30°F above the maximum demonstrated particulate matter control device temperature, as defined in 40 C.F.R. §60.51b, whichever is lower, except during the annual dioxin/furan or mercury performance test and the 2 weeks preceding the annual dioxin/furan or mercury performance test, when the particulate matter control device inlet flue gas temperature limitation of 300°F is applicable.

(c) The above temperature limits apply and remain enforceable at all times, until and unless the Department grants a waiver

**SECTION D. Source Level Requirements**

in writing for the purpose of evaluating system performance, testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions.

II. TESTING REQUIREMENTS.**# 015 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

- (a) The permittee shall conduct annual performance test on each of the combustors for the the following pollutants:
- (1) total particulate matter, and PM-10 (including particle sizing);
 - (2) arsenic and compounds (expressed as arsenic);
 - (3) cadmium and compounds (expressed as cadmium);
 - (4) hexavalent chromium and compounds (expressed as chromium);
 - (5) nickel and compounds (expressed as nickel);
 - (6) lead and compounds (expressed as lead);
 - (7) beryllium and compounds (expressed as beryllium);
 - (8) mercury and compounds (expressed as mercury);
 - (9) PCDD and PCDF (expressed as 2,3,7,8 TCDD equivalents calculated according to the Department approved method and as total dioxin and furan);
 - (10) VOC (expressed as total hydrocarbons);
 - (11) PAH, including Benzo(a)pyrene;
 - (12) NO_x;
 - (13) SO₂;
 - (14) HCl;
 - (15) CO; and
 - (16) Visible emissions of fugitive combustion ash from the ash conveying system (Source ID 111)
- (b) If the emissions of PM, or PM₁₀, or any of the toxic metals from any one of the combustors equal to or exceed 80% of the emission limitations, that combustor(s) shall be tested semiannually for each of the pollutants that equals to or exceeds 80% of the emission limitations. Testing frequency can revert back to annually when the tested emissions are less than 80% of the emission limitations for a consecutive period of 24-months, plus the permittee notifies the Department of such testing schedule reversion.
- (c) Performance testing for SO₂, NO_x, CO, and HCl may be substituted by CEM data to demonstrate compliance with the emission limitations. The permittee shall perform SO₂, NO_x, CO, HCl CEMS performance audit for each combustor during each annual performance test.
- (d) The amount of waste incinerated during a stack test shall be an adequate representation of the waste load to be processed by the facility.
- (e) Unless approved by the Department prior to the testing, the following procedures and test methods shall be used to determine compliance with the emission limits:
- (1) EPA reference method 1, for the sampling sites and traverse points.
 - (2) EPA reference method 3 or 3A, for the gas analysis.
 - (3) EPA reference methods 5, 201A/202 for PM and PM₁₀. Both the front half and back half catches are to be analyzed and reported. However, only the front half catch is to be utilized in determining compliance.
 - (4) EPA reference method 9, for opacity.
 - (5) EPA reference method 29, for cadmium, lead and mercury, with a minimum sample volume to be 1.7 cubic meters for mercury. The percent weight reduction for mercury emissions shall be computed using the mercury concentrations measured at the inlet and outlet of the control device, corrected to 7% oxygen, (dry basis).
 - (6) EPA reference method 26, or 26A, for HCl.
 - (7) EPA reference method 19, for SO₂.
 - (8) EPA reference method 6, 6A, or 6C, for the RATA tests on the SO₂ CEMS.
 - (9) EPA reference method 19, for NO_x.

**SECTION D. Source Level Requirements**

- (10) EPA reference method 7, 7A, 7C, 7D, or 7E, for the RATA test on the NO_x CEMS.
 - (11) EPA reference method 10, 10A, or 10B, for CO.
 - (12) EPA reference method 23, for Dioxins/furans.
 - (13) EPA reference method 22, for visible emissions of fugitive combustion ash from the ash conveying system (Source ID 111).
- (f) Each combustor shall be equipped with test ports so that periodic measurement of the 1800°F for one (1) second residence time requirement can be conducted at the Department's request.

III. MONITORING REQUIREMENTS.**# 016 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

(a) The Department approved Continuous Emission Monitors (CEMs) shall be operated and maintained in accordance with 25 Pa. Code Chapter 139, the Department's "Continuous Source Monitoring Manual (CSM Manual)" (Revision No.5 - March 1993), and latest amendments ("CSM Manual") for the following:

- (1) CO monitored both upstream and downstream of the air pollution control equipment;
- (2) SO₂ monitored upstream and downstream of the air pollution control equipment;
- (3) NO_x monitored downstream of the air pollution control equipment;
- (4) HCL monitored downstream of the air pollution control equipment; and
- (5) Opacity of the exhaust gases.

(b) The following operating parameters shall be monitored and recorded continuously using the Department approved continuous monitoring system (CMS) for each combustor at the locations, if specified:

- (1) Oxygen, at both upstream and downstream of the air pollution control equipment;
- (2) Temperature of the gases exiting the combustor monitored at the furnace roof position approved by the Department;
- (3) Temperature of the gases at the inlet of each baghouse for the combustors.
- (4) The lime slurry injection rate to the dry acid gas scrubber; and
- (5) The steam load for each combustor in lb/hr and calculated in 4-hour block arithmetic averages.

(c) The permittee shall replace all thermocouples, at the furnace roof position of each combustor, on a quarterly basis with those that have been certified in accordance with NIST (National Institute of Standards and Testing).

(d) The permittee shall monitor and record supplemental fuel usage on a monthly basis.

(e) The permittee shall ensure that the Data Acquisition System maintains an uninterruptible power supply until the combustors are in a "process down" mode of operation.

(f) The selected parameters that define "normal operations" for CEM reporting purposes are when the dry inlet O₂ is less than or equal to 18.0% and the steam flow is greater than or equal to 50,000 lbs/hr. If either of the conditions is not met, the CEM reports the combustor as "process down" for that minute.

(g) The Department reserves the right to require the permittee to install, operate and maintain an uninterruptible power supply (UPS) for the continuous monitoring system at the facility. The requirement to install a UPS will be based on power outages and the loss of data and the affect on the CEM system.

017 [25 Pa. Code §139.111]**Municipal waste incinerator monitoring requirements.**

The CEMS and CMS shall be operated and maintained to achieve the following data availability standards:

- (a) Carbon Monoxide (CO) and Temperature: 100% valid hours/day, where a valid hour is defined as greater than or equal to 90% valid readings/hour (54 minutes).
- (b) Opacity and oxygen (O₂): Greater than or equal to 95% valid hours/day, where a valid hour is defined as greater than or

**SECTION D. Source Level Requirements**

equal to 75% valid readings/hour (45 minutes).

(c) Hydrochloric Acid (HCl), Sulfur dioxide (SO₂), and Nitrogen oxides (NO_x): Greater than or equal to 90% valid hours/month, where a valid hour is defined as greater than or equal to 75% valid readings/hour (45 minutes).

IV. RECORDKEEPING REQUIREMENTS.**# 018 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The permittee shall maintain, on-site, the following records for a minimum of five (5) years, in either paper copy, or computer-readable format, unless an alternative format is approved by the Department.

(a) the calendar date of each record.

(b) all emission averages from the continuous monitoring systems, which include: all one (1) hour average SO₂, NO_x, CO, and HCl emission concentrations, combustor unit load measurements, and PM control device inlet temperatures.

(c) all block geometric or arithmetic average concentrations, and percent reductions, as applicable, for SO₂, NO_x, CO, HCl, combustor unit load level, and PM control device inlet temperatures.

(d) identification of the calendar dates when any of the average emissions, percent reductions, or operating parameters recorded for SO₂, NO_x, CO, HCl, combustor unit load levels, particulate matter control device inlet temperature, or opacity, are above the applicable limits, with reasons for such exceedances and a description of the corrective action taken.

(e) identification of the calendar dates when the minimum hours of any of the data for SO₂, NO_x, CO, HCl emissions data, combustor unit load, PM control device inlet temperature and/or opacity have not been obtained, the reason for not obtaining sufficient data, and a description of corrective action taken.

(f) the results of the daily drift tests and quarterly accuracy determinations for the SO₂, NO_x, CO, HCl CEMs.

(g) results of all performance tests, including supporting calculations, along with maximum demonstrated unit load, and maximum PM control device inlet temperature.

(h) the names of the combustor chief facility operator, shift supervisors, and control room operators who have been fully certified, or provisionally certified, by the American Society of Mechanical Engineers (ASME) or an equivalent State-approved certification, including the dates of initial and renewal certifications and documentation of current certification. This subcondition does not apply to those individuals who have obtained full certification from the ASME on or before August 23, 1999.

(i) the names of the combustor chief facility operator, shift supervisors, and control room operators who have completed the EPA municipal waste combustor operator training course or a State-approved equivalent course, including documentation of training completion. Those chief facility operators, shift supervisors and control room operators who have obtained full certification prior to August 23, 1999, do not need to be recertified.

(j) the supplemental fuel usage.

V. REPORTING REQUIREMENTS.**# 019 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

(a) The permittee shall submit, to both the USEPA and the Department, semiannual reports that shall include the following information :

(1) A list of PM, lead, cadmium, opacity, mercury, dioxin/furans, and fugitive ash emission levels achieved during the performance tests.

**SECTION D. Source Level Requirements**

- (2) A list of the highest emission level recorded for SO₂, NO_x, CO, HCl, municipal waste combustor unit load level, and PM control device inlet temperature based on the data recorded using CMS.
- (3) The highest opacity level measured and recorded.
- (4) The total number of hours per calendar quarter and hours per calendar year that valid data for SO_x, NO_x, CO, HCl, municipal waste combustor unit load, or PM control device inlet temperature data were not obtained.
- (5) The total number of hours that data for SO₂, NO_x, CO, HCl, combustor load, and PM control device inlet temperature were excluded from the calculation of average emission concentrations of parameters.
- (b) The semiannual reports shall include information from the preceding calendar year for the year being reported, in order to provide the Department with a summary of the performance of this facility over a 2-year period.
- (c) The semiannual report shall include the following information for any recorded pollutant or parameter that does not comply with the pollutant or parameter limit:
- (1) SO₂, NO_x, CO, HCl, combustor load level, PM control device inlet temperature, and opacity.
 - (2) Any exceedance of the applicable levels for the following: PM, opacity, mercury, cadmium, lead, dioxin/furans, and fugitive ash. A copy of the test report documenting the emission levels and the corrective action taken, shall accompany the report.
- (d) The semiannual reports shall be submitted as a paper copy, postmarked on or before August 1 and February 1 following the proceeding 6-month period ending each December and June, respectively.
- (e) Temperature values submitted in each quarterly report shall consist of actual temperature values plus 950°F, the difference measured at the surrogate location and the demonstrated 1800°F for one (1) second retention time location.
- (f) All CEM reports, including CEMS violations, shall be submitted to the Department within thirty (30) days after each quarter, unless otherwise approved the Department. The Department reserves the right to require the report submissions with a format acceptable to the Department.
- (g) The permittee shall submit the following reports:
- (1) a semi annual deviation report, due by October 1, of each year, for the period covering January 1 through June 30 of the same year. Note: The annual certification of compliance fulfills the obligation for the second deviation reporting period (July 1 through December 31 of the previous year).
 - (2) For those contaminants monitored by a Department certified CEMS for which the Department's Enforcement Policy - Continuous Emission Monitoring System (CEMS) established penalties for excess emissions, the aforementioned notification and reporting requirements shall be waived.

VI. WORK PRACTICE REQUIREMENTS.

020 [25 Pa. Code §127.512]
Operating permit terms and conditions.

(a) Combustor Operation Requirements

(1) No solid waste shall be charged into the combustor(s) until equilibrium has been attained in the furnace zones and the temperature of the combustion gases reach 1800°F (based upon a surrogate temperature of 850°F as displayed on the facility CEMs) for one (1) second of retention time when the combustor is empty. All control equipment shall be operational and functioning properly prior to the introduction of solid waste into the combustor(s).

(2) During the process of all planned shut downs of each combustor, auxiliary burners shall be used to ensure that the temperature of the combustion gases does not drop below 1600°F while any waste material is still being incinerated. All

**SECTION D. Source Level Requirements**

control equipment shall be operational and functioning properly until all of the solid waste is incinerated.

(3) The charging of waste to each combustor shall automatically cease through the use of an interlock system, if:

(A) The combustor temperature measured at the furnace roof, at the Department approved location, drops below 650°F, (a Department approved reference temperature which corresponds to 1600°F), for a 15-minute period, or,

(B) The CO emissions exceed 600 ppmv, corrected to 7% oxygen on a dry basis for a period of fifteen (15) minutes (this requirement is waived during the startup periods), or

(C) The flue gas oxygen (as measured at the oxygen monitor upstream of the control device) level drops below 3% (wet basis or equivalent dry) for a 15-minute period, or,

(D) The opacity of the exhaust gases is equal to or greater than 10% for a period of 15 minutes.

(4) An adequate spare parts inventory shall be maintained to ensure timely repairs of major component malfunctions.

(b) Operator Training and Certification Requirements

(1) All personnel involved with the operation and maintenance of the combustors, associated pollution control equipment and monitoring equipment shall complete the comprehensive training program as specified in 40 C.F.R. §§60.56a and 60.54b, and according to the schedules specified in 40 CFR §60.39b(c)(4). This program includes operator training to identify waste material and actions to be taken to correct conditions which result from the initiation of the interlock system.

(2) Each facility operator and shift supervisor shall obtain and maintain a current provisional operator certification from either the American Society of Mechanical Engineers (ASME) or a state certification program, and each shall have completed full certification or shall have scheduled a full certification exam with either the American Society of Mechanical Engineers or a State Certification program.

(3) Except as provided in subcondition (i) below, each combustor shall not be operated at any time unless one of the following people is on duty at the source:

(A) A fully certified chief facility operator,

(B) A provisionally certified chief facility operator who is scheduled to take the full certification exam,

(C) A fully certified shift supervisor, or

(D) A provisionally certified shift supervisor who is scheduled to take the full certification exam.

(4) Stand-In Provisions

(A) If one of the persons, listed in Condition (b)(3) above, must leave the facility during their operating shift, a provisionally certified control room operator who is on-site, may stand in.

(B) A provisionally certified control room operator may stand in when the chief facility operator or shift supervisor is off-site for more than twelve (12) hours (a normal work shift), but less than two (2) weeks for normal off-site activities including: attending meetings, conferences, training, work travel, temporary reassignment, personal vacation, sick leave, family leave or similar activities. The permittee shall notify the Department, in writing, (by facsimile), within 24 hours, that the stand-in period will exceed twelve (12) hours (a normal work shift).

(5) In the event that the medical conditions, temporary reassignment, job transfer, resignation, dismissal or other circumstances beyond the permittee's control results in or is expected to result in the absence of the chief facility operator or shift supervisor for a period exceeding two (2) weeks, the permittee shall notify the Department in writing and identify what conditions resulted in such absence and what corrective actions have been taken to correct such absence. At the Department's request, the permittee shall prepare written status summary reports demonstrating that a good faith effort has been made and continues to be made to correct the conditions resulting in the absence of the chief facility operator or shift supervisor.

(6) A provisionally certified operator who is newly promoted or recently transferred to a shift supervisor position or a chief facility operator position at the municipal waste combustion unit may perform the duties of the certified chief facility operator or certified shift supervisor without notice to, or approval by, the Department for up to six months before taking the ASME QRO certification exam.

**SECTION D. Source Level Requirements**

(7) The permittee shall review the operating manual with each person who has responsibilities affecting the operation of this facility including, but not limited to: chief facility operators, shift supervisors, control room operators, ash handlers, maintenance personnel, and crane/load operators.

(8) The operating manual review shall include, but not be limited to: operator training to identify waste materials referred to as large non-combustible bulky materials, combustible bulky materials, unacceptable waste, as defined in this permit, and action to be taken to correct conditions which result from abnormal/emergency operation, running and/or shutdown that would cause the initiation of the interlock system.

(9) Each operator shall undergo initial training the date prior to the day the person assumes responsibilities affecting the combustor unit operation, and annually thereafter.

(10) The operating manual shall be kept in a readily accessible location for all persons required to undergo training, and be available to the USEPA and/or the Department upon request.

(11) The permittee shall keep and update on a yearly basis a site-specific operating manual that shall, at a minimum, address the following:

- (A) a summary of the applicable standards under this Operating Permit;
- (B) a description of basic combustion theory applicable to the combustor(s);
- (C) procedures for handling, receiving, and feeding municipal solid waste;
- (D) combustor startup, shutdown, and malfunction provisions;
- (E) procedures for maintaining proper combustion air supply levels;
- (F) procedures for operating the combustors within the standards established under this Operating Permit;
- (G) procedures for responding to periodic upset or off-specification conditions;
- (H) procedures for minimizing particulate matter carryover;
- (I) procedures for ash handling;
- (J) procedures for monitoring combustion emissions;
- (K) procedures for reporting and recordkeeping;
- (L) procedures for responding to emergency situations; and
- (M) procedures for monitoring the degree of waste burnout.

(c) Waste Management

(1) The following wastes or materials shall be removed from the tipping room floor for appropriate disposal:

- (A) Unacceptable waste, visible hazardous materials, and visible unapproved residual waste as defined by 25 Pa. Code § 287.1 of the Bureau of Waste Management Regulations;
- (B) Large non-combustible bulky materials, including visible automotive batteries;
- (C) Combustible bulky materials.

(2) The amount of solid waste material stored in the tipping room shall be less than the amount of solid waste material which can be reasonably incinerated within 120 hours of its delivery. If there is reason to believe that the combustor(s) are not capable of incinerating the solid waste material specified in the time frame above, the Department shall be notified in accordance with the malfunction reporting condition of this permit. No additional waste material shall be accepted and all the solid waste material shall be removed, if needed, to prevent the escape of odor beyond the property line. No air shall be exhausted to the outdoor atmosphere from this building during such an occurrence without being treated in the combustor(s) unless otherwise authorized by the Department.

(3) Except recyclable materials, open storage of solid waste outside of a building is prohibited.

(4) All wastes or materials which can be airborne or spilled shall be transported in closed containers or tarped trucks.

(d) Tipping Area Management

(1) The tipping area shall be operated at a negative pressure, when any combustor is in operation. The air passing

**SECTION D. Source Level Requirements**

through all natural draft openings surrounding the tipping floor, including the MWC charging area, shall flow inward continuously.

(2) To ensure negative pressure on the tipping area, at a minimum, the permittee shall:

- (A) limit the number of open entrance and exit doors to the tipping floor to one in each direction;
- (B) close all truck delivery doors to the tipping floor between 8:00 pm and 5:00 am every day and all day on Sunday;
- (C) use and maintain plastic flaps or other equivalent shielding to reduce the effective opening area on any open truck delivery door to the tipping floor; and
- (D) on a daily basis, inspect and log that all roof vents over the tipping floor and combustor charging chutes are closed and that all tipping floor doors and openings not in use that day are closed.

(e) The permittee shall operate and maintain a telephone dial-up telemetry system which has been approved by the Department, and is consistent with the "Air Quality Compliance Assurance Policy for Municipal Waste Incinerators", July 1989, as revised (CAP for MWI).

VII. ADDITIONAL REQUIREMENTS.

021 [25 Pa. Code §127.512]

Operating permit terms and conditions.

- (a) The combustors are subject to the Department's Air Quality Compliance Assurance Policy (CAP) for Municipal Waste Incinerators finalized and signed by the Department on July 12, 1989, and its latest amendments.
- (b) The combustors are subject to the provisions of EPA approved State section 111(d)/129 plan implementing 40 C.F.R. 60 subpart Cb for Large Municipal Waste Combustors, dated April 27, 1998 (67 FR 68935).
- (c) The design, construction, and operation of each combustor as stated in the Plan Approval Application, in accordance with the Department's BAT for MWI and its subsequent amendments issued up to the issuance of the Plan Approval and the conditions of the Plan Approval shall be adhered to. Department approval must be obtained prior to modification of any of the design, construction, and operation of each combustor.
- (d) The combustors are not subject to the provisions of 40 C.F.R. 60 Subpart Db as per 40 C.F.R. §60.40b(k).

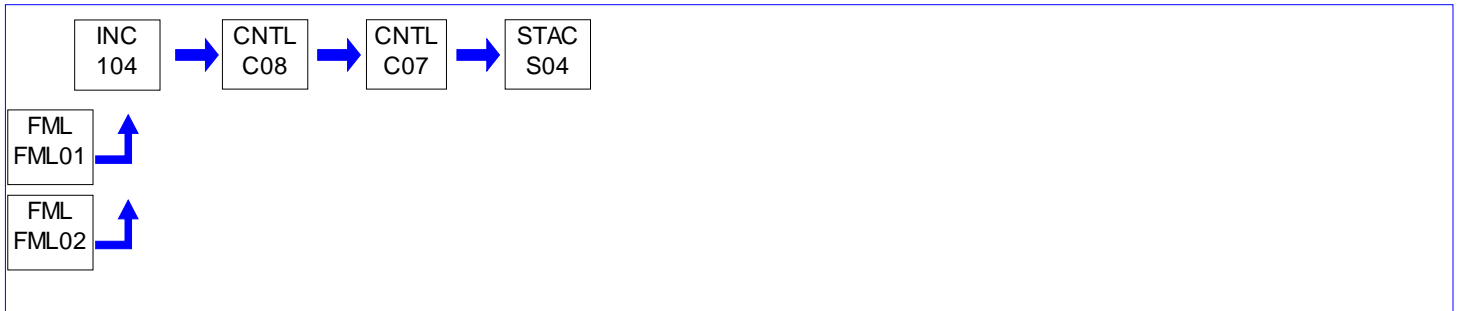
***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

Source ID: 104

Source Name: ROTARY COMBUSTER 4

Source Capacity/Throughput:

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

(a) Nitrogen Oxide (NO_x) emissions per combustor, expressed as NO₂, shall not exceed any of the following:

- (1) 180 ppmdv, corrected to 7% oxygen, on a 24-hour block arithmetic average using CEMs;
- (2) 88.56 lbs/hr; and
- (3) 0.42 lbs/MMBtu.

(b) The above NO_x limits are a result of controlled combustion. This control was determined by the Department as being Reasonably Available Control Technology (RACT) for emissions of NO_x (66 FR 54699 and 40 C.F.R. §52.2063).

(c) The NO_x emission limit applies at all times when municipal wastes are combusted, except during periods of start-up, and shut-down, provided that the duration of the start-up or shut-down does not exceed three (3) hours per occurrence.

002 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) The following annual ambient concentrations, expressed in micro-grams/cubic meter (UG/DSCM), shall not be exceeded. To demonstrate compliance with the following annual ambient concentrations, the permittee shall calculate the concentrations using the actual stack emission rates and exhaust parameters from each stack test specified for the combustor(s), and the dispersion modeling techniques used in the application, as approved by the Department. A certification shall be supplied to the Department stating compliance with maximum allowable ambient concentrations with every stack test report.

PCDD & PCDF, expressed as 2,3,7,8 TCDD equivalents* 0.30 x 10E-7

Arsenic and Compounds 0.23 x 10E-3

Beryllium and Compounds 0.42 x 10E-3

Cadmium and Compounds 0.56 x 10E-3

Nickel and Compounds 0.33 x 10E-2

Hexavalent Chromium and Compounds 0.83 x 10E-4

Lead and Compounds 0.09

Mercury and Compounds 0.024

Hydrogen Chloride 7.0

Benzo(a)pyrene 0.59 x 10E-3

(b) Ambient air quality analysis shall be redone if there is a modification in emission limits or for any parameter that exceeds the applicable stack test limitation during any stack test series.

(c) The permittee may be required to resume full modeling if the Department determines that a decrease in either volumetric flow rate and/or stack temperature has a significant adverse impact on the ambient concentration.

* Polychlorinated dibenzo-p-dioxins ("PCDD") and polychlorinated dibenzofurans ("PCDF") expressed as 2, 3, 7, 8

**SECTION D. Source Level Requirements**

tetrachlorinated dibenzo-p-dioxins ("TCDD") equivalents using toxicity equivalents factors ("TEFS") as described in the Department's BAT and calculated according to PADEP approved method.

003 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) VOC emissions, expressed as total hydrocarbons, shall not exceed 37.6 pounds per hour as an aggregate emission rate for the six (6) combustors. This VOC emission limit is a determination of RACT for VOC emissions (66 FR 54699 and 40 C.F.R. §52.2063).

(b) Compliance with this limitation shall be based on the average of three (3) consecutive test runs.

(c) This emissions cap does not provide any relief from obtaining a plan approval for any future physical change or change in the method of operation of any of the combustors. Future applicability determinations must consider the baseline actual emissions of the emissions units and not the cap. The latter is true even if the company does not request a change in the compliance cap. Furthermore, by accepting this cap and agreeing to consider the six combustors as one emissions unit for NSR/PSD purposes, any future applicability determinations must involve all six combustors, e.g. should major NSR/PSD be triggered for any one combustor or process change, BACT/LAER is required for all six combustors.

004 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

SO₂ emissions, per combustor, shall not exceed any of the following:

(a) 68.45 lbs/hr; and

(b) 29 ppm_{dv}, corrected to 7% oxygen, or shall be reduced by no less than 80% (by weight) on a 24-hour block geometric average using CEMs, whichever is less stringent.

005 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) The toxic metal emissions per combustor shall not exceed any of the following:

(1) Emission concentration, measured in ug/dscm and corrected to 7% oxygen:

Arsenic and Compounds 7.2

Beryllium and Compounds 0.2

Cadmium and Compounds 15.8

Hexavalent Chromium and Compounds 2.3

Nickel and Compounds 25.0

Lead and Compounds 166.0

Mercury and Compounds 50 or 15 percent of the potential mercury emission concentration (85-percent reduction by weight), whichever is less stringent.

(2) Emission rate (lbs/hr) was based on an exhaust rate of 68,679 dscfm, at 7% oxygen.

Arsenic and Compounds 0.00185

Beryllium and Compounds 0.000051

Cadmium and Compounds 0.00406

Hexavalent Chromium and Compounds 0.000591

Nickel and Compounds 0.00643

Lead and Compounds 0.0423

Mercury and Compounds 0.029

(b) Compliance with the emission concentration limits shall be documented through stack tests for each combustor. The results shall be based on ppm_{dv} or ug/dscm, as appropriate, and corrected to 7% oxygen.

006 [25 Pa. Code §127.512]

**SECTION D. Source Level Requirements****Operating permit terms and conditions.**

(a) Visible air contaminants from any combustor stack shall not be emitted in such a manner that the opacity (measured by CEMS) of the emissions is equal to or greater than

- (1) 10% for a period aggregating more than three (3) minutes in any one (1) hour; or
- (2) 30% at any time.

(b) The above visible emission limitations do not apply in either of the following instances:

- (1) when the presence of uncombined water is the only reason for failure of the emission to meet the limitations; or
- (2) when the emission results from sources specified in 25 Pa. Code §123.1(a).

007 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) Total mass dioxin/furan emissions per combustor shall not exceed 30 nanograms per dry standard cubic meter (total mass), corrected to 7% oxygen.

(b) Compliance with this emission limitation shall be based on the average of three (3) consecutive test runs.

008 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) Carbon monoxide emissions per combustor shall not exceed any of the following:

- (1) 100 ppm_{dv}, corrected to 7% oxygen, calculated as a 24-hour block arithmetic average using CEMs; and
- (2) 29.95 lbs/hr.

(b) The CO emission limit applies at all times when municipal wastes are combusted, except during periods of start-up, and shut-down. Provided that the duration of the start-up or shut-down does not exceed three (3) hours per occurrence.

(c) Compliance with the CO limit shall be determined using a 24-hour block arithmetic average. The 24-hour block arithmetic average shall be calculated from one (1) hour arithmetic averages expressed in ppm_{dv}, corrected to 7% oxygen.

009 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

Hydrochloric acid (HCl) emissions per combustor shall be reduced by not less than 95% (by weight), on a 24-hour daily arithmetic basis. This reduction requirement shall be waived if the exhaust concentrations are less than 25 ppm_{dv}, corrected to 7% oxygen, on a 24-hour block arithmetic average, and 36.58 lbs/hr.

010 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) The Department reserves the right to establish and impose more stringent limits than those stated in this permit, based on the test results from each stack test performed, the CEM results and the dispersion modeling techniques as approved by the Department.

(b) Start-up of the combustor commences with the introduction of municipal waste to an empty combustor and does not include any warm up period when the combustor is combusting only a fossil fuel or any other auxiliary fuel, approved by the Department, and no municipal waste is being combusted.

(c) Shutdown of the combustor commences with the cessation of charging municipal waste for the express purpose of shutting down the combustor.

011 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) Total particulate matter (PM) emissions per combustor shall not exceed 5.80 lbs/hr and 0.010 gr/dscf, corrected to 7% oxygen.

(b) PM-10 emissions per combustor shall not exceed 0.012 gr/dscf, corrected to 7% oxygen, and 6.96 lbs/hr.

**SECTION D. Source Level Requirements**

(c) Compliance with the above emission limits shall be based on the average of three (3) consecutive test runs.

Throughput Restriction(s).**# 012 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

(a) Each combustor shall not be operated to exceed 161,000 lbs steam/hr, or 110% of the maximum demonstrated steam load during the most recent annual dioxin/furan performance test, whichever is less, except during the dioxin/furan performance test and the two (2) weeks preceding this test, when the steam load limitations do not apply.

(b) Only the following types of waste are permitted to be burned in the combustors:

- (1) municipal waste, as defined in 25 Pa. Code § 287.1;
- (2) municipal-like residual waste, as permitted in the Department's Waste Permit No. 400593, and the Miscellaneous Section of this permit; and
- (3) residual waste, as permitted in the Department's Waste Permit No. 400593, and the Miscellaneous Section of this permit.

(c) The residual waste (Form R waste list) accepted at the facility shall not exceed the following on a daily basis:

- (1) 10% of the total amount of waste, by weight; or
- (2) 500 tons

(d) The daily amount of residual waste and total amount of waste must be documented in accordance with the conditions of the Department's Waste Permit No. 400593.

(e) Any changes to the waste streams or types of waste shall be approved by the Department.

Control Device Efficiencies Restriction(s).**# 013 [25 Pa. Code §127.503]****Application information.**

Emissions from each combustor shall be controlled by individual dry acid gas scrubbers and pulse-jet cleaning type fabric collectors.

014 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

Compliance with the parameters set forth in the Conditions below assures compliance with the toxic metal emission limits in Condition #005 of this Section.

(a) Each combustor shall be operated to maintain the combustion gases temperature greater than 1800°F for at least one (1) second, calculated on an hourly average (1-hour block arithmetic). The temperature sensor shall be located at the furnace roof position approved by the Department for each combustor. The temperature at this location shall be maintained at greater than 850°F, (a Department approved reference temperature which corresponds to 1800°F for at least one second). Each combustor auxiliary burners shall be controlled automatically to maintain the combustion gases at the aforementioned temperature whenever refuse is being incinerated. In the event that furnace combustion gas flow rates change significantly from any previous alternate location verification test, or at the Department's request, the permittee shall perform a new alternative location verification and retention test.

(b) The flue gas temperature, measured at the particulate matter control device inlet and averaged arithmetically in 4-hour block, shall not exceed 300°F or 30°F above the maximum demonstrated particulate matter control device temperature, as defined in 40 C.F.R. §60.51b, whichever is lower, except during the annual dioxin/furan or mercury performance test and the 2 weeks preceding the annual dioxin/furan or mercury performance test, when the particulate matter control device inlet flue gas temperature limitation of 300°F is applicable.

(c) The above temperature limits apply and remain enforceable at all times, until and unless the Department grants a waiver

**SECTION D. Source Level Requirements**

in writing for the purpose of evaluating system performance, testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions.

II. TESTING REQUIREMENTS.**# 015 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

- (a) The permittee shall conduct annual performance test on each of the combustors for the the following pollutants:
- (1) total particulate matter, and PM-10 (including particle sizing);
 - (2) arsenic and compounds (expressed as arsenic);
 - (3) cadmium and compounds (expressed as cadmium);
 - (4) hexavalent chromium and compounds (expressed as chromium);
 - (5) nickel and compounds (expressed as nickel);
 - (6) lead and compounds (expressed as lead);
 - (7) beryllium and compounds (expressed as beryllium);
 - (8) mercury and compounds (expressed as mercury);
 - (9) PCDD and PCDF (expressed as 2,3,7,8 TCDD equivalents calculated according to the Department approved method and as total dioxin and furan);
 - (10) VOC (expressed as total hydrocarbons);
 - (11) PAH, including Benzo(a)pyrene;
 - (12) NO_x;
 - (13) SO₂;
 - (14) HCl;
 - (15) CO; and
 - (16) Visible emissions of fugitive combustion ash from the ash conveying system (Source ID 111)
- (b) If the emissions of PM, or PM10, or any of the toxic metals from any one of the combustors equal to or exceed 80% of the emission limitations, that combustor(s) shall be tested semiannually for each of the pollutants that equals to or exceeds 80% of the emission limitations. Testing frequency can revert back to annually when the tested emissions are less than 80% of the emission limitations for a consecutive period of 24-months, plus the permittee notifies the Department of such testing schedule reversion.
- (c) Performance testing for SO₂, NO_x, CO, and HCl may be substituted by CEM data to demonstrate compliance with the emission limitations. The permittee shall perform SO₂, NO_x, CO, HCl CEMS performance audit for each combustor during each annual performance test.
- (d) The amount of waste incinerated during a stack test shall be an adequate representation of the waste load to be processed by the facility.
- (e) Unless approved by the Department prior to the testing, the following procedures and test methods shall be used to determine compliance with the emission limits:
- (1) EPA reference method 1, for the sampling sites and traverse points.
 - (2) EPA reference method 3 or 3A, for the gas analysis.
 - (3) EPA reference methods 5, 201A/202 for PM and PM10. Both the front half and back half catches are to be analyzed and reported. However, only the front half catch is to be utilized in determining compliance.
 - (4) EPA reference method 9, for opacity.
 - (5) EPA reference method 29, for cadmium, lead and mercury, with a minimum sample volume to be 1.7 cubic meters for mercury. The percent weight reduction for mercury emissions shall be computed using the mercury concentrations measured at the inlet and outlet of the control device, corrected to 7% oxygen, (dry basis).
 - (6) EPA reference method 26, or 26A, for HCl.
 - (7) EPA reference method 19, for SO₂.
 - (8) EPA reference method 6, 6A, or 6C, for the RATA tests on the SO₂ CEMS.
 - (9) EPA reference method 19, for NO_x.

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- (10) EPA reference method 7, 7A, 7C, 7D, or 7E, for the RATA test on the NO_x CEMS.
 - (11) EPA reference method 10, 10A, or 10B, for CO.
 - (12) EPA reference method 23, for Dioxins/furans.
 - (13) EPA reference method 22, for visible emissions of fugitive combustion ash from the ash conveying system (Source ID 111).
- (f) Each combustor shall be equipped with test ports so that periodic measurement of the 1800°F for one (1) second residence time requirement can be conducted at the Department's request.

III. MONITORING REQUIREMENTS.**# 016 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

(a) The Department approved Continuous Emission Monitors (CEMs) shall be operated and maintained in accordance with 25 Pa. Code Chapter 139, the Department's "Continuous Source Monitoring Manual (CSM Manual)" (Revision No.5 - March 1993), and latest amendments ("CSM Manual") for the following:

- (1) CO monitored both upstream and downstream of the air pollution control equipment;
- (2) SO₂ monitored upstream and downstream of the air pollution control equipment;
- (3) NO_x monitored downstream of the air pollution control equipment;
- (4) HCL monitored downstream of the air pollution control equipment; and
- (5) Opacity of the exhaust gases.

(b) The following operating parameters shall be monitored and recorded continuously using the Department approved continuous monitoring system (CMS) for each combustor at the locations, if specified:

- (1) Oxygen, at both upstream and downstream of the air pollution control equipment;
- (2) Temperature of the gases exiting the combustor monitored at the furnace roof position approved by the Department;
- (3) Temperature of the gases at the inlet of each baghouse for the combustors.
- (4) The lime slurry injection rate to the dry acid gas scrubber; and
- (5) The steam load for each combustor in lb/hr and calculated in 4-hour block arithmetic averages.

(c) The permittee shall replace all thermocouples, at the furnace roof position of each combustor, on a quarterly basis with those that have been certified in accordance with NIST (National Institute of Standards and Testing).

(d) The permittee shall monitor and record supplemental fuel usage on a monthly basis.

(e) The permittee shall ensure that the Data Acquisition System maintains an uninterruptible power supply until the combustors are in a "process down" mode of operation.

(f) The selected parameters that define "normal operations" for CEM reporting purposes are when the dry inlet O₂ is less than or equal to 18.0% and the steam flow is greater than or equal to 50,000 lbs/hr. If either of the conditions is not met, the CEM reports the combustor as "process down" for that minute.

(g) The Department reserves the right to require the permittee to install, operate and maintain an uninterruptible power supply (UPS) for the continuous monitoring system at the facility. The requirement to install a UPS will be based on power outages and the loss of data and the affect on the CEM system.

017 [25 Pa. Code §139.111]**Municipal waste incinerator monitoring requirements.**

The CEMS and CMS shall be operated and maintained to achieve the following data availability standards:

- (a) Carbon Monoxide (CO) and Temperature: 100% valid hours/day, where a valid hour is defined as greater than or equal to 90% valid readings/hour (54 minutes).
- (b) Opacity and oxygen (O₂): Greater than or equal to 95% valid hours/day, where a valid hour is defined as greater than or

**SECTION D. Source Level Requirements**

equal to 75% valid readings/hour (45 minutes).

(c) Hydrochloric Acid (HCl), Sulfur dioxide (SO₂), and Nitrogen oxides (NO_x): Greater than or equal to 90% valid hours/month, where a valid hour is defined as greater than or equal to 75% valid readings/hour (45 minutes).

IV. RECORDKEEPING REQUIREMENTS.**# 018 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The permittee shall maintain, on-site, the following records for a minimum of five (5) years, in either paper copy, or computer-readable format, unless an alternative format is approved by the Department.

(a) the calendar date of each record.

(b) all emission averages from the continuous monitoring systems, which include: all one (1) hour average SO₂, NO_x, CO, and HCl emission concentrations, combustor unit load measurements, and PM control device inlet temperatures.

(c) all block geometric or arithmetic average concentrations, and percent reductions, as applicable, for SO₂, NO_x, CO, HCl, combustor unit load level, and PM control device inlet temperatures.

(d) identification of the calendar dates when any of the average emissions, percent reductions, or operating parameters recorded for SO₂, NO_x, CO, HCl, combustor unit load levels, particulate matter control device inlet temperature, or opacity, are above the applicable limits, with reasons for such exceedances and a description of the corrective action taken.

(e) identification of the calendar dates when the minimum hours of any of the data for SO₂, NO_x, CO, HCl emissions data, combustor unit load, PM control device inlet temperature and/or opacity have not been obtained, the reason for not obtaining sufficient data, and a description of corrective action taken.

(f) the results of the daily drift tests and quarterly accuracy determinations for the SO₂, NO_x, CO, HCl CEMs.

(g) results of all performance tests, including supporting calculations, along with maximum demonstrated unit load, and maximum PM control device inlet temperature.

(h) the names of the combustor chief facility operator, shift supervisors, and control room operators who have been fully certified, or provisionally certified, by the American Society of Mechanical Engineers (ASME) or an equivalent State-approved certification, including the dates of initial and renewal certifications and documentation of current certification. This subcondition does not apply to those individuals who have obtained full certification from the ASME on or before August 23, 1999.

(i) the names of the combustor chief facility operator, shift supervisors, and control room operators who have completed the EPA municipal waste combustor operator training course or a State-approved equivalent course, including documentation of training completion. Those chief facility operators, shift supervisors and control room operators who have obtained full certification prior to August 23, 1999, do not need to be recertified.

(j) the supplemental fuel usage.

V. REPORTING REQUIREMENTS.**# 019 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

(a) The permittee shall submit, to both the USEPA and the Department, semiannual reports that shall include the following information :

(1) A list of PM, lead, cadmium, opacity, mercury, dioxin/furans, and fugitive ash emission levels achieved during the performance tests.

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- (2) A list of the highest emission level recorded for SO₂, NO_x, CO, HCl, municipal waste combustor unit load level, and PM control device inlet temperature based on the data recorded using CMS.
- (3) The highest opacity level measured and recorded.
- (4) The total number of hours per calendar quarter and hours per calendar year that valid data for SO_x, NO_x, CO, HCl, municipal waste combustor unit load, or PM control device inlet temperature data were not obtained.
- (5) The total number of hours that data for SO₂, NO_x, CO, HCl, combustor load, and PM control device inlet temperature were excluded from the calculation of average emission concentrations of parameters.
- (b) The semiannual reports shall include information from the preceding calendar year for the year being reported, in order to provide the Department with a summary of the performance of this facility over a 2-year period.
- (c) The semiannual report shall include the following information for any recorded pollutant or parameter that does not comply with the pollutant or parameter limit:
- (1) SO₂, NO_x, CO, HCl, combustor load level, PM control device inlet temperature, and opacity.
 - (2) Any exceedance of the applicable levels for the following: PM, opacity, mercury, cadmium, lead, dioxin/furans, and fugitive ash. A copy of the test report documenting the emission levels and the corrective action taken, shall accompany the report.
- (d) The semiannual reports shall be submitted as a paper copy, postmarked on or before August 1 and February 1 following the proceeding 6-month period ending each December and June, respectively.
- (e) Temperature values submitted in each quarterly report shall consist of actual temperature values plus 950°F, the difference measured at the surrogate location and the demonstrated 1800°F for one (1) second retention time location.
- (f) All CEM reports, including CEMS violations, shall be submitted to the Department within thirty (30) days after each quarter, unless otherwise approved the Department. The Department reserves the right to require the report submissions with a format acceptable to the Department.
- (g) The permittee shall submit the following reports:
- (1) a semi annual deviation report, due by October 1, of each year, for the period covering January 1 through June 30 of the same year. Note: The annual certification of compliance fulfills the obligation for the second deviation reporting period (July 1 through December 31 of the previous year).
 - (2) For those contaminants monitored by a Department certified CEMS for which the Department's Enforcement Policy - Continuous Emission Monitoring System (CEMS) established penalties for excess emissions, the aforementioned notification and reporting requirements shall be waived.

VI. WORK PRACTICE REQUIREMENTS.**# 020 [25 Pa. Code §127.512]
Operating permit terms and conditions.****(a) Combustor Operation Requirements**

(1) No solid waste shall be charged into the combustor(s) until equilibrium has been attained in the furnace zones and the temperature of the combustion gases reach 1800°F (based upon a surrogate temperature of 850°F as displayed on the facility CEMs) for one (1) second of retention time when the combustor is empty. All control equipment shall be operational and functioning properly prior to the introduction of solid waste into the combustor(s).

(2) During the process of all planned shut downs of each combustor, auxiliary burners shall be used to ensure that the temperature of the combustion gases does not drop below 1600°F while any waste material is still being incinerated. All

**SECTION D. Source Level Requirements**

control equipment shall be operational and functioning properly until all of the solid waste is incinerated.

(3) The charging of waste to each combustor shall automatically cease through the use of an interlock system, if:

(A) The combustor temperature measured at the furnace roof, at the Department approved location, drops below 650°F, (a Department approved reference temperature which corresponds to 1600°F), for a 15-minute period, or,

(B) The CO emissions exceed 600 ppmv, corrected to 7% oxygen on a dry basis for a period of fifteen (15) minutes (this requirement is waived during the startup periods), or

(C) The flue gas oxygen (as measured at the oxygen monitor upstream of the control device) level drops below 3% (wet basis or equivalent dry) for a 15-minute period, or,

(D) The opacity of the exhaust gases is equal to or greater than 10% for a period of 15 minutes.

(4) An adequate spare parts inventory shall be maintained to ensure timely repairs of major component malfunctions.

(b) Operator Training and Certification Requirements

(1) All personnel involved with the operation and maintenance of the combustors, associated pollution control equipment and monitoring equipment shall complete the comprehensive training program as specified in 40 C.F.R. §§60.56a and 60.54b, and according to the schedules specified in 40 CFR §60.39b(c)(4). This program includes operator training to identify waste material and actions to be taken to correct conditions which result from the initiation of the interlock system.

(2) Each facility operator and shift supervisor shall obtain and maintain a current provisional operator certification from either the American Society of Mechanical Engineers (ASME) or a state certification program, and each shall have completed full certification or shall have scheduled a full certification exam with either the American Society of Mechanical Engineers or a State Certification program.

(3) Except as provided in subcondition (i) below, each combustor shall not be operated at any time unless one of the following people is on duty at the source:

(A) A fully certified chief facility operator,

(B) A provisionally certified chief facility operator who is scheduled to take the full certification exam,

(C) A fully certified shift supervisor, or

(D) A provisionally certified shift supervisor who is scheduled to take the full certification exam.

(4) Stand-In Provisions

(A) If one of the persons, listed in Condition (b)(3) above, must leave the facility during their operating shift, a provisionally certified control room operator who is on-site, may stand in.

(B) A provisionally certified control room operator may stand in when the chief facility operator or shift supervisor is off-site for more than twelve (12) hours (a normal work shift), but less than two (2) weeks for normal off-site activities including: attending meetings, conferences, training, work travel, temporary reassignment, personal vacation, sick leave, family leave or similar activities. The permittee shall notify the Department, in writing, (by facsimile), within 24 hours, that the stand-in period will exceed twelve (12) hours (a normal work shift).

(5) In the event that the medical conditions, temporary reassignment, job transfer, resignation, dismissal or other circumstances beyond the permittee's control results in or is expected to result in the absence of the chief facility operator or shift supervisor for a period exceeding two (2) weeks, the permittee shall notify the Department in writing and identify what conditions resulted in such absence and what corrective actions have been taken to correct such absence. At the Department's request, the permittee shall prepare written status summary reports demonstrating that a good faith effort has been made and continues to be made to correct the conditions resulting in the absence of the chief facility operator or shift supervisor.

(6) A provisionally certified operator who is newly promoted or recently transferred to a shift supervisor position or a chief facility operator position at the municipal waste combustion unit may perform the duties of the certified chief facility operator or certified shift supervisor without notice to, or approval by, the Department for up to six months before taking the ASME QRO certification exam.

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(7) The permittee shall review the operating manual with each person who has responsibilities affecting the operation of this facility including, but not limited to: chief facility operators, shift supervisors, control room operators, ash handlers, maintenance personnel, and crane/load operators.

(8) The operating manual review shall include, but not be limited to: operator training to identify waste materials referred to as large non-combustible bulky materials, combustible bulky materials, unacceptable waste, as defined in this permit, and action to be taken to correct conditions which result from abnormal/emergency operation, running and/or shutdown that would cause the initiation of the interlock system.

(9) Each operator shall undergo initial training the date prior to the day the person assumes responsibilities affecting the combustor unit operation, and annually thereafter.

(10) The operating manual shall be kept in a readily accessible location for all persons required to undergo training, and be available to the USEPA and/or the Department upon request.

(11) The permittee shall keep and update on a yearly basis a site-specific operating manual that shall, at a minimum, address the following:

- (A) a summary of the applicable standards under this Operating Permit;
- (B) a description of basic combustion theory applicable to the combustor(s);
- (C) procedures for handling, receiving, and feeding municipal solid waste;
- (D) combustor startup, shutdown, and malfunction provisions;
- (E) procedures for maintaining proper combustion air supply levels;
- (F) procedures for operating the combustors within the standards established under this Operating Permit;
- (G) procedures for responding to periodic upset or off-specification conditions;
- (H) procedures for minimizing particulate matter carryover;
- (I) procedures for ash handling;
- (J) procedures for monitoring combustion emissions;
- (K) procedures for reporting and recordkeeping;
- (L) procedures for responding to emergency situations; and
- (M) procedures for monitoring the degree of waste burnout.

(c) Waste Management

(1) The following wastes or materials shall be removed from the tipping room floor for appropriate disposal:

- (A) Unacceptable waste, visible hazardous materials, and visible unapproved residual waste as defined by 25 Pa. Code § 287.1 of the Bureau of Waste Management Regulations;
- (B) Large non-combustible bulky materials, including visible automotive batteries;
- (C) Combustible bulky materials.

(2) The amount of solid waste material stored in the tipping room shall be less than the amount of solid waste material which can be reasonably incinerated within 120 hours of its delivery. If there is reason to believe that the combustor(s) are not capable of incinerating the solid waste material specified in the time frame above, the Department shall be notified in accordance with the malfunction reporting condition of this permit. No additional waste material shall be accepted and all the solid waste material shall be removed, if needed, to prevent the escape of odor beyond the property line. No air shall be exhausted to the outdoor atmosphere from this building during such an occurrence without being treated in the combustor(s) unless otherwise authorized by the Department.

(3) Except recyclable materials, open storage of solid waste outside of a building is prohibited.

(4) All wastes or materials which can be airborne or spilled shall be transported in closed containers or tarped trucks.

(d) Tipping Area Management

(1) The tipping area shall be operated at a negative pressure, when any combustor is in operation. The air passing

**SECTION D. Source Level Requirements**

through all natural draft openings surrounding the tipping floor, including the MWC charging area, shall flow inward continuously.

(2) To ensure negative pressure on the tipping area, at a minimum, the permittee shall:

- (A) limit the number of open entrance and exit doors to the tipping floor to one in each direction;
- (B) close all truck delivery doors to the tipping floor between 8:00 pm and 5:00 am every day and all day on Sunday;
- (C) use and maintain plastic flaps or other equivalent shielding to reduce the effective opening area on any open truck delivery door to the tipping floor; and
- (D) on a daily basis, inspect and log that all roof vents over the tipping floor and combustor charging chutes are closed and that all tipping floor doors and openings not in use that day are closed.

(e) The permittee shall operate and maintain a telephone dial-up telemetry system which has been approved by the Department, and is consistent with the "Air Quality Compliance Assurance Policy for Municipal Waste Incinerators", July 1989, as revised (CAP for MWI).

VII. ADDITIONAL REQUIREMENTS.

021 [25 Pa. Code §127.512]

Operating permit terms and conditions.

- (a) The combustors are subject to the Department's Air Quality Compliance Assurance Policy (CAP) for Municipal Waste Incinerators finalized and signed by the Department on July 12, 1989, and its latest amendments.
- (b) The combustors are subject to the provisions of EPA approved State section 111(d)/129 plan implementing 40 C.F.R. 60 subpart Cb for Large Municipal Waste Combustors, dated April 27, 1998 (67 FR 68935).
- (c) The design, construction, and operation of each combustor as stated in the Plan Approval Application, in accordance with the Department's BAT for MWI and its subsequent amendments issued up to the issuance of the Plan Approval and the conditions of the Plan Approval shall be adhered to. Department approval must be obtained prior to modification of any of the design, construction, and operation of each combustor.
- (d) The combustors are not subject to the provisions of 40 C.F.R. 60 Subpart Db as per 40 C.F.R. §60.40b(k).

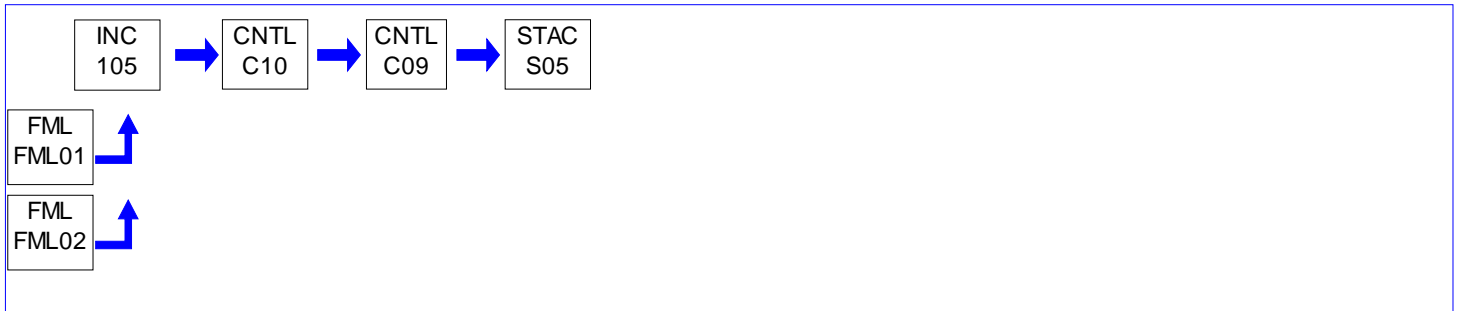
***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

Source ID: 105

Source Name: ROTARY COMBUSTER 5

Source Capacity/Throughput:

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

(a) Nitrogen Oxide (NO_x) emissions per combustor, expressed as NO₂, shall not exceed any of the following:

- (1) 180 ppmdv, corrected to 7% oxygen, on a 24-hour block arithmetic average using CEMs;
- (2) 88.56 lbs/hr; and
- (3) 0.42 lbs/MMBtu.

(b) The above NO_x limits are a result of controlled combustion. This control was determined by the Department as being Reasonably Available Control Technology (RACT) for emissions of NO_x (66 FR 54699 and 40 C.F.R. §52.2063).

(c) The NO_x emission limit applies at all times when municipal wastes are combusted, except during periods of start-up, and shut-down, provided that the duration of the start-up or shut-down does not exceed three (3) hours per occurrence.

002 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) The following annual ambient concentrations, expressed in micro-grams/cubic meter (UG/DSCM), shall not be exceeded. To demonstrate compliance with the following annual ambient concentrations, the permittee shall calculate the concentrations using the actual stack emission rates and exhaust parameters from each stack test specified for the combustor(s), and the dispersion modeling techniques used in the application, as approved by the Department. A certification shall be supplied to the Department stating compliance with maximum allowable ambient concentrations with every stack test report.

PCDD & PCDF, expressed as 2,3,7,8 TCDD equivalents* 0.30 x 10E-7

Arsenic and Compounds 0.23 x 10E-3

Beryllium and Compounds 0.42 x 10E-3

Cadmium and Compounds 0.56 x 10E-3

Nickel and Compounds 0.33 x 10E-2

Hexavalent Chromium and Compounds 0.83 x 10E-4

Lead and Compounds 0.09

Mercury and Compounds 0.024

Hydrogen Chloride 7.0

Benzo(a)pyrene 0.59 x 10E-3

(b) Ambient air quality analysis shall be redone if there is a modification in emission limits or for any parameter that exceeds the applicable stack test limitation during any stack test series.

(c) The permittee may be required to resume full modeling if the Department determines that a decrease in either volumetric flow rate and/or stack temperature has a significant adverse impact on the ambient concentration.

* Polychlorinated dibenzo-p-dioxins ("PCDD") and polychlorinated dibenzofurans ("PCDF") expressed as 2, 3, 7, 8

**SECTION D. Source Level Requirements**

tetrachlorinated dibenzo-p-dioxins ("TCDD") equivalents using toxicity equivalents factors ("TEFS") as described in the Department's BAT and calculated according to PADEP approved method.

003 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) VOC emissions, expressed as total hydrocarbons, shall not exceed 37.6 pounds per hour as an aggregate emission rate for the six (6) combustors. This VOC emission limit is a determination of RACT for VOC emissions (66 FR 54699 and 40 C.F.R. §52.2063).

(b) Compliance with this limitation shall be based on the average of three (3) consecutive test runs.

(c) This emissions cap does not provide any relief from obtaining a plan approval for any future physical change or change in the method of operation of any of the combustors. Future applicability determinations must consider the baseline actual emissions of the emissions units and not the cap. The latter is true even if the company does not request a change in the compliance cap. Furthermore, by accepting this cap and agreeing to consider the six combustors as one emissions unit for NSR/PSD purposes, any future applicability determinations must involve all six combustors, e.g. should major NSR/PSD be triggered for any one combustor or process change, BACT/LAER is required for all six combustors.

004 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

SO₂ emissions, per combustor, shall not exceed any of the following:

(a) 68.45 lbs/hr; and

(b) 29 ppm_{dv}, corrected to 7% oxygen, or shall be reduced by no less than 80% (by weight) on a 24-hour block geometric average using CEMs, whichever is less stringent.

005 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) The toxic metal emissions per combustor shall not exceed any of the following:

(1) Emission concentration, measured in ug/dscm and corrected to 7% oxygen:

Arsenic and Compounds 7.2

Beryllium and Compounds 0.2

Cadmium and Compounds 15.8

Hexavalent Chromium and Compounds 2.3

Nickel and Compounds 25.0

Lead and Compounds 166.0

Mercury and Compounds 50 or 15 percent of the potential mercury emission concentration (85-percent reduction by weight), whichever is less stringent.

(2) Emission rate (lbs/hr) was based on an exhaust rate of 68,679 dscfm, at 7% oxygen.

Arsenic and Compounds 0.00185

Beryllium and Compounds 0.000051

Cadmium and Compounds 0.00406

Hexavalent Chromium and Compounds 0.000591

Nickel and Compounds 0.00643

Lead and Compounds 0.0423

Mercury and Compounds 0.029

(b) Compliance with the emission concentration limits shall be documented through stack tests for each combustor. The results shall be based on ppm_{dv} or ug/dscm, as appropriate, and corrected to 7% oxygen.

006 [25 Pa. Code §127.512]

**SECTION D. Source Level Requirements****Operating permit terms and conditions.**

(a) Visible air contaminants from any combustor stack shall not be emitted in such a manner that the opacity (measured by CEMS) of the emissions is equal to or greater than

- (1) 10% for a period aggregating more than three (3) minutes in any one (1) hour; or
- (2) 30% at any time.

(b) The above visible emission limitations do not apply in either of the following instances:

- (1) when the presence of uncombined water is the only reason for failure of the emission to meet the limitations; or
- (2) when the emission results from sources specified in 25 Pa. Code §123.1(a).

007 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) Total mass dioxin/furan emissions per combustor shall not exceed 30 nanograms per dry standard cubic meter (total mass), corrected to 7% oxygen.

(b) Compliance with this emission limitation shall be based on the average of three (3) consecutive test runs.

008 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) Carbon monoxide emissions per combustor shall not exceed any of the following:

- (1) 100 ppm_{dv}, corrected to 7% oxygen, calculated as a 24-hour block arithmetic average using CEMs; and
- (2) 29.95 lbs/hr.

(b) The CO emission limit applies at all times when municipal wastes are combusted, except during periods of start-up, and shut-down. Provided that the duration of the start-up or shut-down does not exceed three (3) hours per occurrence.

(c) Compliance with the CO limit shall be determined using a 24-hour block arithmetic average. The 24-hour block arithmetic average shall be calculated from one (1) hour arithmetic averages expressed in ppm_{dv}, corrected to 7% oxygen.

009 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

Hydrochloric acid (HCl) emissions per combustor shall be reduced by not less than 95% (by weight), on a 24-hour daily arithmetic basis. This reduction requirement shall be waived if the exhaust concentrations are less than 25 ppm_{dv}, corrected to 7% oxygen, on a 24-hour block arithmetic average, and 36.58 lbs/hr.

010 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) The Department reserves the right to establish and impose more stringent limits than those stated in this permit, based on the test results from each stack test performed, the CEM results and the dispersion modeling techniques as approved by the Department.

(b) Start-up of the combustor commences with the introduction of municipal waste to an empty combustor and does not include any warm up period when the combustor is combusting only a fossil fuel or any other auxiliary fuel, approved by the Department, and no municipal waste is being combusted.

(c) Shutdown of the combustor commences with the cessation of charging municipal waste for the express purpose of shutting down the combustor.

011 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) Total particulate matter (PM) emissions per combustor shall not exceed 5.80 lbs/hr and 0.010 gr/dscf, corrected to 7% oxygen.

(b) PM-10 emissions per combustor shall not exceed 0.012 gr/dscf, corrected to 7% oxygen, and 6.96 lbs/hr.

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(c) Compliance with the above emission limits shall be based on the average of three (3) consecutive test runs.

Throughput Restriction(s).**# 012 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

(a) Each combustor shall not be operated to exceed 161,000 lbs steam/hr, or 110% of the maximum demonstrated steam load during the most recent annual dioxin/furan performance test, whichever is less, except during the dioxin/furan performance test and the two (2) weeks preceding this test, when the steam load limitations do not apply.

(b) Only the following types of waste are permitted to be burned in the combustors:

- (1) municipal waste, as defined in 25 Pa. Code § 287.1;
- (2) municipal-like residual waste, as permitted in the Department's Waste Permit No. 400593, and the Miscellaneous Section of this permit; and
- (3) residual waste, as permitted in the Department's Waste Permit No. 400593, and the Miscellaneous Section of this permit.

(c) The residual waste (Form R waste list) accepted at the facility shall not exceed the following on a daily basis:

- (1) 10% of the total amount of waste, by weight; or
- (2) 500 tons

(d) The daily amount of residual waste and total amount of waste must be documented in accordance with the conditions of the Department's Waste Permit No. 400593.

(e) Any changes to the waste streams or types of waste shall be approved by the Department.

Control Device Efficiencies Restriction(s).**# 013 [25 Pa. Code §127.503]****Application information.**

Emissions from each combustor shall be controlled by individual dry acid gas scrubbers and pulse-jet cleaning type fabric collectors.

014 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

Compliance with the parameters set forth in the Conditions below assures compliance with the toxic metal emission limits in Condition #005 of this Section.

(a) Each combustor shall be operated to maintain the combustion gases temperature greater than 1800°F for at least one (1) second, calculated on an hourly average (1-hour block arithmetic). The temperature sensor shall be located at the furnace roof position approved by the Department for each combustor. The temperature at this location shall be maintained at greater than 850°F, (a Department approved reference temperature which corresponds to 1800°F for at least one second). Each combustor auxiliary burners shall be controlled automatically to maintain the combustion gases at the aforementioned temperature whenever refuse is being incinerated. In the event that furnace combustion gas flow rates change significantly from any previous alternate location verification test, or at the Department's request, the permittee shall perform a new alternative location verification and retention test.

(b) The flue gas temperature, measured at the particulate matter control device inlet and averaged arithmetically in 4-hour block, shall not exceed 300°F or 30°F above the maximum demonstrated particulate matter control device temperature, as defined in 40 C.F.R. §60.51b, whichever is lower, except during the annual dioxin/furan or mercury performance test and the 2 weeks preceding the annual dioxin/furan or mercury performance test, when the particulate matter control device inlet flue gas temperature limitation of 300°F is applicable.

(c) The above temperature limits apply and remain enforceable at all times, until and unless the Department grants a waiver

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in writing for the purpose of evaluating system performance, testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions.

II. TESTING REQUIREMENTS.**# 015 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

- (a) The permittee shall conduct annual performance test on each of the combustors for the the following pollutants:
- (1) total particulate matter, and PM-10 (including particle sizing);
 - (2) arsenic and compounds (expressed as arsenic);
 - (3) cadmium and compounds (expressed as cadmium);
 - (4) hexavalent chromium and compounds (expressed as chromium);
 - (5) nickel and compounds (expressed as nickel);
 - (6) lead and compounds (expressed as lead);
 - (7) beryllium and compounds (expressed as beryllium);
 - (8) mercury and compounds (expressed as mercury);
 - (9) PCDD and PCDF (expressed as 2,3,7,8 TCDD equivalents calculated according to the Department approved method and as total dioxin and furan);
 - (10) VOC (expressed as total hydrocarbons);
 - (11) PAH, including Benzo(a)pyrene;
 - (12) NO_x;
 - (13) SO₂;
 - (14) HCl;
 - (15) CO; and
 - (16) Visible emissions of fugitive combustion ash from the ash conveying system (Source ID 111)
- (b) If the emissions of PM, or PM₁₀, or any of the toxic metals from any one of the combustors equal to or exceed 80% of the emission limitations, that combustor(s) shall be tested semiannually for each of the pollutants that equals to or exceeds 80% of the emission limitations. Testing frequency can revert back to annually when the tested emissions are less than 80% of the emission limitations for a consecutive period of 24-months, plus the permittee notifies the Department of such testing schedule reversion.
- (c) Performance testing for SO₂, NO_x, CO, and HCl may be substituted by CEM data to demonstrate compliance with the emission limitations. The permittee shall perform SO₂, NO_x, CO, HCl CEMS performance audit for each combustor during each annual performance test.
- (d) The amount of waste incinerated during a stack test shall be an adequate representation of the waste load to be processed by the facility.
- (e) Unless approved by the Department prior to the testing, the following procedures and test methods shall be used to determine compliance with the emission limits:
- (1) EPA reference method 1, for the sampling sites and traverse points.
 - (2) EPA reference method 3 or 3A, for the gas analysis.
 - (3) EPA reference methods 5, 201A/202 for PM and PM₁₀. Both the front half and back half catches are to be analyzed and reported. However, only the front half catch is to be utilized in determining compliance.
 - (4) EPA reference method 9, for opacity.
 - (5) EPA reference method 29, for cadmium, lead and mercury, with a minimum sample volume to be 1.7 cubic meters for mercury. The percent weight reduction for mercury emissions shall be computed using the mercury concentrations measured at the inlet and outlet of the control device, corrected to 7% oxygen, (dry basis).
 - (6) EPA reference method 26, or 26A, for HCl.
 - (7) EPA reference method 19, for SO₂.
 - (8) EPA reference method 6, 6A, or 6C, for the RATA tests on the SO₂ CEMS.
 - (9) EPA reference method 19, for NO_x.

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- (10) EPA reference method 7, 7A, 7C, 7D, or 7E, for the RATA test on the NO_x CEMS.
 - (11) EPA reference method 10, 10A, or 10B, for CO.
 - (12) EPA reference method 23, for Dioxins/furans.
 - (13) EPA reference method 22, for visible emissions of fugitive combustion ash from the ash conveying system (Source ID 111).
- (f) Each combustor shall be equipped with test ports so that periodic measurement of the 1800°F for one (1) second residence time requirement can be conducted at the Department's request.

III. MONITORING REQUIREMENTS.**# 016 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

(a) The Department approved Continuous Emission Monitors (CEMs) shall be operated and maintained in accordance with 25 Pa. Code Chapter 139, the Department's "Continuous Source Monitoring Manual (CSM Manual)" (Revision No.5 - March 1993), and latest amendments ("CSM Manual") for the following:

- (1) CO monitored both upstream and downstream of the air pollution control equipment;
- (2) SO₂ monitored upstream and downstream of the air pollution control equipment;
- (3) NO_x monitored downstream of the air pollution control equipment;
- (4) HCL monitored downstream of the air pollution control equipment; and
- (5) Opacity of the exhaust gases.

(b) The following operating parameters shall be monitored and recorded continuously using the Department approved continuous monitoring system (CMS) for each combustor at the locations, if specified:

- (1) Oxygen, at both upstream and downstream of the air pollution control equipment;
- (2) Temperature of the gases exiting the combustor monitored at the furnace roof position approved by the Department;
- (3) Temperature of the gases at the inlet of each baghouse for the combustors.
- (4) The lime slurry injection rate to the dry acid gas scrubber; and
- (5) The steam load for each combustor in lb/hr and calculated in 4-hour block arithmetic averages.

(c) The permittee shall replace all thermocouples, at the furnace roof position of each combustor, on a quarterly basis with those that have been certified in accordance with NIST (National Institute of Standards and Testing).

(d) The permittee shall monitor and record supplemental fuel usage on a monthly basis.

(e) The permittee shall ensure that the Data Acquisition System maintains an uninterruptible power supply until the combustors are in a "process down" mode of operation.

(f) The selected parameters that define "normal operations" for CEM reporting purposes are when the dry inlet O₂ is less than or equal to 18.0% and the steam flow is greater than or equal to 50,000 lbs/hr. If either of the conditions is not met, the CEM reports the combustor as "process down" for that minute.

(g) The Department reserves the right to require the permittee to install, operate and maintain an uninterruptible power supply (UPS) for the continuous monitoring system at the facility. The requirement to install a UPS will be based on power outages and the loss of data and the affect on the CEM system.

017 [25 Pa. Code §139.111]**Municipal waste incinerator monitoring requirements.**

The CEMS and CMS shall be operated and maintained to achieve the following data availability standards:

- (a) Carbon Monoxide (CO) and Temperature: 100% valid hours/day, where a valid hour is defined as greater than or equal to 90% valid readings/hour (54 minutes).
- (b) Opacity and oxygen (O₂): Greater than or equal to 95% valid hours/day, where a valid hour is defined as greater than or

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equal to 75% valid readings/hour (45 minutes).

(c) Hydrochloric Acid (HCl), Sulfur dioxide (SO₂), and Nitrogen oxides (NO_x): Greater than or equal to 90% valid hours/month, where a valid hour is defined as greater than or equal to 75% valid readings/hour (45 minutes).

IV. RECORDKEEPING REQUIREMENTS.**# 018 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The permittee shall maintain, on-site, the following records for a minimum of five (5) years, in either paper copy, or computer-readable format, unless an alternative format is approved by the Department.

(a) the calendar date of each record.

(b) all emission averages from the continuous monitoring systems, which include: all one (1) hour average SO₂, NO_x, CO, and HCl emission concentrations, combustor unit load measurements, and PM control device inlet temperatures.

(c) all block geometric or arithmetic average concentrations, and percent reductions, as applicable, for SO₂, NO_x, CO, HCl, combustor unit load level, and PM control device inlet temperatures.

(d) identification of the calendar dates when any of the average emissions, percent reductions, or operating parameters recorded for SO₂, NO_x, CO, HCl, combustor unit load levels, particulate matter control device inlet temperature, or opacity, are above the applicable limits, with reasons for such exceedances and a description of the corrective action taken.

(e) identification of the calendar dates when the minimum hours of any of the data for SO₂, NO_x, CO, HCl emissions data, combustor unit load, PM control device inlet temperature and/or opacity have not been obtained, the reason for not obtaining sufficient data, and a description of corrective action taken.

(f) the results of the daily drift tests and quarterly accuracy determinations for the SO₂, NO_x, CO, HCl CEMs.

(g) results of all performance tests, including supporting calculations, along with maximum demonstrated unit load, and maximum PM control device inlet temperature.

(h) the names of the combustor chief facility operator, shift supervisors, and control room operators who have been fully certified, or provisionally certified, by the American Society of Mechanical Engineers (ASME) or an equivalent State-approved certification, including the dates of initial and renewal certifications and documentation of current certification. This subcondition does not apply to those individuals who have obtained full certification from the ASME on or before August 23, 1999.

(i) the names of the combustor chief facility operator, shift supervisors, and control room operators who have completed the EPA municipal waste combustor operator training course or a State-approved equivalent course, including documentation of training completion. Those chief facility operators, shift supervisors and control room operators who have obtained full certification prior to August 23, 1999, do not need to be recertified.

(j) the supplemental fuel usage.

V. REPORTING REQUIREMENTS.**# 019 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

(a) The permittee shall submit, to both the USEPA and the Department, semiannual reports that shall include the following information :

(1) A list of PM, lead, cadmium, opacity, mercury, dioxin/furans, and fugitive ash emission levels achieved during the performance tests.

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- (2) A list of the highest emission level recorded for SO₂, NO_x, CO, HCl, municipal waste combustor unit load level, and PM control device inlet temperature based on the data recorded using CMS.
- (3) The highest opacity level measured and recorded.
- (4) The total number of hours per calendar quarter and hours per calendar year that valid data for SO_x, NO_x, CO, HCl, municipal waste combustor unit load, or PM control device inlet temperature data were not obtained.
- (5) The total number of hours that data for SO₂, NO_x, CO, HCl, combustor load, and PM control device inlet temperature were excluded from the calculation of average emission concentrations of parameters.
- (b) The semiannual reports shall include information from the preceding calendar year for the year being reported, in order to provide the Department with a summary of the performance of this facility over a 2-year period.
- (c) The semiannual report shall include the following information for any recorded pollutant or parameter that does not comply with the pollutant or parameter limit:
- (1) SO₂, NO_x, CO, HCl, combustor load level, PM control device inlet temperature, and opacity.
 - (2) Any exceedance of the applicable levels for the following: PM, opacity, mercury, cadmium, lead, dioxin/furans, and fugitive ash. A copy of the test report documenting the emission levels and the corrective action taken, shall accompany the report.
- (d) The semiannual reports shall be submitted as a paper copy, postmarked on or before August 1 and February 1 following the proceeding 6-month period ending each December and June, respectively.
- (e) Temperature values submitted in each quarterly report shall consist of actual temperature values plus 950°F, the difference measured at the surrogate location and the demonstrated 1800°F for one (1) second retention time location.
- (f) All CEM reports, including CEMS violations, shall be submitted to the Department within thirty (30) days after each quarter, unless otherwise approved the Department. The Department reserves the right to require the report submissions with a format acceptable to the Department.
- (g) The permittee shall submit the following reports:
- (1) a semi annual deviation report, due by October 1, of each year, for the period covering January 1 through June 30 of the same year. Note: The annual certification of compliance fulfills the obligation for the second deviation reporting period (July 1 through December 31 of the previous year).
 - (2) For those contaminants monitored by a Department certified CEMS for which the Department's Enforcement Policy - Continuous Emission Monitoring System (CEMS) established penalties for excess emissions, the aforementioned notification and reporting requirements shall be waived.

VI. WORK PRACTICE REQUIREMENTS.

020 [25 Pa. Code §127.512]
Operating permit terms and conditions.

(a) Combustor Operation Requirements

(1) No solid waste shall be charged into the combustor(s) until equilibrium has been attained in the furnace zones and the temperature of the combustion gases reach 1800°F (based upon a surrogate temperature of 850°F as displayed on the facility CEMs) for one (1) second of retention time when the combustor is empty. All control equipment shall be operational and functioning properly prior to the introduction of solid waste into the combustor(s).

(2) During the process of all planned shut downs of each combustor, auxiliary burners shall be used to ensure that the temperature of the combustion gases does not drop below 1600°F while any waste material is still being incinerated. All

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control equipment shall be operational and functioning properly until all of the solid waste is incinerated.

(3) The charging of waste to each combustor shall automatically cease through the use of an interlock system, if:

(A) The combustor temperature measured at the furnace roof, at the Department approved location, drops below 650°F, (a Department approved reference temperature which corresponds to 1600°F), for a 15-minute period, or,

(B) The CO emissions exceed 600 ppmv, corrected to 7% oxygen on a dry basis for a period of fifteen (15) minutes (this requirement is waived during the startup periods), or

(C) The flue gas oxygen (as measured at the oxygen monitor upstream of the control device) level drops below 3% (wet basis or equivalent dry) for a 15-minute period, or,

(D) The opacity of the exhaust gases is equal to or greater than 10% for a period of 15 minutes.

(4) An adequate spare parts inventory shall be maintained to ensure timely repairs of major component malfunctions.

(b) Operator Training and Certification Requirements

(1) All personnel involved with the operation and maintenance of the combustors, associated pollution control equipment and monitoring equipment shall complete the comprehensive training program as specified in 40 C.F.R. §§60.56a and 60.54b, and according to the schedules specified in 40 CFR §60.39b(c)(4). This program includes operator training to identify waste material and actions to be taken to correct conditions which result from the initiation of the interlock system.

(2) Each facility operator and shift supervisor shall obtain and maintain a current provisional operator certification from either the American Society of Mechanical Engineers (ASME) or a state certification program, and each shall have completed full certification or shall have scheduled a full certification exam with either the American Society of Mechanical Engineers or a State Certification program.

(3) Except as provided in subcondition (i) below, each combustor shall not be operated at any time unless one of the following people is on duty at the source:

(A) A fully certified chief facility operator,

(B) A provisionally certified chief facility operator who is scheduled to take the full certification exam,

(C) A fully certified shift supervisor, or

(D) A provisionally certified shift supervisor who is scheduled to take the full certification exam.

(4) Stand-In Provisions

(A) If one of the persons, listed in Condition (b)(3) above, must leave the facility during their operating shift, a provisionally certified control room operator who is on-site, may stand in.

(B) A provisionally certified control room operator may stand in when the chief facility operator or shift supervisor is off-site for more than twelve (12) hours (a normal work shift), but less than two (2) weeks for normal off-site activities including: attending meetings, conferences, training, work travel, temporary reassignment, personal vacation, sick leave, family leave or similar activities. The permittee shall notify the Department, in writing, (by facsimile), within 24 hours, that the stand-in period will exceed twelve (12) hours (a normal work shift).

(5) In the event that the medical conditions, temporary reassignment, job transfer, resignation, dismissal or other circumstances beyond the permittee's control results in or is expected to result in the absence of the chief facility operator or shift supervisor for a period exceeding two (2) weeks, the permittee shall notify the Department in writing and identify what conditions resulted in such absence and what corrective actions have been taken to correct such absence. At the Department's request, the permittee shall prepare written status summary reports demonstrating that a good faith effort has been made and continues to be made to correct the conditions resulting in the absence of the chief facility operator or shift supervisor.

(6) A provisionally certified operator who is newly promoted or recently transferred to a shift supervisor position or a chief facility operator position at the municipal waste combustion unit may perform the duties of the certified chief facility operator or certified shift supervisor without notice to, or approval by, the Department for up to six months before taking the ASME QRO certification exam.

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(7) The permittee shall review the operating manual with each person who has responsibilities affecting the operation of this facility including, but not limited to: chief facility operators, shift supervisors, control room operators, ash handlers, maintenance personnel, and crane/load operators.

(8) The operating manual review shall include, but not be limited to: operator training to identify waste materials referred to as large non-combustible bulky materials, combustible bulky materials, unacceptable waste, as defined in this permit, and action to be taken to correct conditions which result from abnormal/emergency operation, running and/or shutdown that would cause the initiation of the interlock system.

(9) Each operator shall undergo initial training the date prior to the day the person assumes responsibilities affecting the combustor unit operation, and annually thereafter.

(10) The operating manual shall be kept in a readily accessible location for all persons required to undergo training, and be available to the USEPA and/or the Department upon request.

(11) The permittee shall keep and update on a yearly basis a site-specific operating manual that shall, at a minimum, address the following:

- (A) a summary of the applicable standards under this Operating Permit;
- (B) a description of basic combustion theory applicable to the combustor(s);
- (C) procedures for handling, receiving, and feeding municipal solid waste;
- (D) combustor startup, shutdown, and malfunction provisions;
- (E) procedures for maintaining proper combustion air supply levels;
- (F) procedures for operating the combustors within the standards established under this Operating Permit;
- (G) procedures for responding to periodic upset or off-specification conditions;
- (H) procedures for minimizing particulate matter carryover;
- (I) procedures for ash handling;
- (J) procedures for monitoring combustion emissions;
- (K) procedures for reporting and recordkeeping;
- (L) procedures for responding to emergency situations; and
- (M) procedures for monitoring the degree of waste burnout.

(c) Waste Management

(1) The following wastes or materials shall be removed from the tipping room floor for appropriate disposal:

- (A) Unacceptable waste, visible hazardous materials, and visible unapproved residual waste as defined by 25 Pa. Code § 287.1 of the Bureau of Waste Management Regulations;
- (B) Large non-combustible bulky materials, including visible automotive batteries;
- (C) Combustible bulky materials.

(2) The amount of solid waste material stored in the tipping room shall be less than the amount of solid waste material which can be reasonably incinerated within 120 hours of its delivery. If there is reason to believe that the combustor(s) are not capable of incinerating the solid waste material specified in the time frame above, the Department shall be notified in accordance with the malfunction reporting condition of this permit. No additional waste material shall be accepted and all the solid waste material shall be removed, if needed, to prevent the escape of odor beyond the property line. No air shall be exhausted to the outdoor atmosphere from this building during such an occurrence without being treated in the combustor(s) unless otherwise authorized by the Department.

(3) Except recyclable materials, open storage of solid waste outside of a building is prohibited.

(4) All wastes or materials which can be airborne or spilled shall be transported in closed containers or tarped trucks.

(d) Tipping Area Management

(1) The tipping area shall be operated at a negative pressure, when any combustor is in operation. The air passing

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through all natural draft openings surrounding the tipping floor, including the MWC charging area, shall flow inward continuously.

(2) To ensure negative pressure on the tipping area, at a minimum, the permittee shall:

- (A) limit the number of open entrance and exit doors to the tipping floor to one in each direction;
- (B) close all truck delivery doors to the tipping floor between 8:00 pm and 5:00 am every day and all day on Sunday;
- (C) use and maintain plastic flaps or other equivalent shielding to reduce the effective opening area on any open truck delivery door to the tipping floor; and
- (D) on a daily basis, inspect and log that all roof vents over the tipping floor and combustor charging chutes are closed and that all tipping floor doors and openings not in use that day are closed.

(e) The permittee shall operate and maintain a telephone dial-up telemetry system which has been approved by the Department, and is consistent with the "Air Quality Compliance Assurance Policy for Municipal Waste Incinerators", July 1989, as revised (CAP for MWI).

VII. ADDITIONAL REQUIREMENTS.

021 [25 Pa. Code §127.512]

Operating permit terms and conditions.

- (a) The combustors are subject to the Department's Air Quality Compliance Assurance Policy (CAP) for Municipal Waste Incinerators finalized and signed by the Department on July 12, 1989, and its latest amendments.
- (b) The combustors are subject to the provisions of EPA approved State section 111(d)/129 plan implementing 40 C.F.R. 60 subpart Cb for Large Municipal Waste Combustors, dated April 27, 1998 (67 FR 68935).
- (c) The design, construction, and operation of each combustor as stated in the Plan Approval Application, in accordance with the Department's BAT for MWI and its subsequent amendments issued up to the issuance of the Plan Approval and the conditions of the Plan Approval shall be adhered to. Department approval must be obtained prior to modification of any of the design, construction, and operation of each combustor.
- (d) The combustors are not subject to the provisions of 40 C.F.R. 60 Subpart Db as per 40 C.F.R. §60.40b(k).

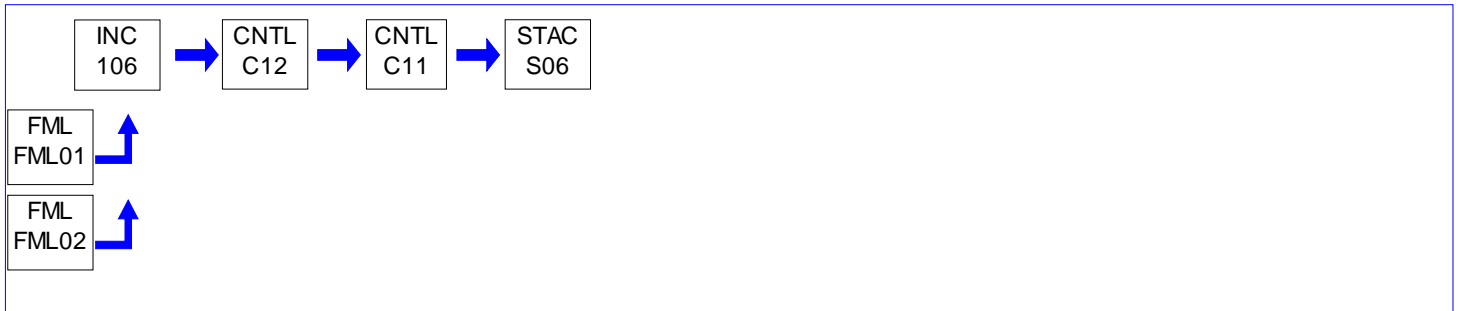
***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

Source ID: 106

Source Name: ROTARY COMBUSTER 6

Source Capacity/Throughput:

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

(a) Nitrogen Oxide (NO_x) emissions per combustor, expressed as NO₂, shall not exceed any of the following:

- (1) 180 ppmdv, corrected to 7% oxygen, on a 24-hour block arithmetic average using CEMs;
- (2) 88.56 lbs/hr; and
- (3) 0.42 lbs/MMBtu.

(b) The above NO_x limits are a result of controlled combustion. This control was determined by the Department as being Reasonably Available Control Technology (RACT) for emissions of NO_x (66 FR 54699 and 40 C.F.R. §52.2063).

(c) The NO_x emission limit applies at all times when municipal wastes are combusted, except during periods of start-up, and shut-down, provided that the duration of the start-up or shut-down does not exceed three (3) hours per occurrence.

002 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) The following annual ambient concentrations, expressed in micro-grams/cubic meter (UG/DSCM), shall not be exceeded. To demonstrate compliance with the following annual ambient concentrations, the permittee shall calculate the concentrations using the actual stack emission rates and exhaust parameters from each stack test specified for the combustor(s), and the dispersion modeling techniques used in the application, as approved by the Department. A certification shall be supplied to the Department stating compliance with maximum allowable ambient concentrations with every stack test report.

PCDD & PCDF, expressed as 2,3,7,8 TCDD equivalents* 0.30 x 10E-7

Arsenic and Compounds 0.23 x 10E-3

Beryllium and Compounds 0.42 x 10E-3

Cadmium and Compounds 0.56 x 10E-3

Nickel and Compounds 0.33 x 10E-2

Hexavalent Chromium and Compounds 0.83 x 10E-4

Lead and Compounds 0.09

Mercury and Compounds 0.024

Hydrogen Chloride 7.0

Benzo(a)pyrene 0.59 x 10E-3

(b) Ambient air quality analysis shall be redone if there is a modification in emission limits or for any parameter that exceeds the applicable stack test limitation during any stack test series.

(c) The permittee may be required to resume full modeling if the Department determines that a decrease in either volumetric flow rate and/or stack temperature has a significant adverse impact on the ambient concentration.

* Polychlorinated dibenzo-p-dioxins ("PCDD") and polychlorinated dibenzofurans ("PCDF") expressed as 2, 3, 7, 8

**SECTION D. Source Level Requirements**

tetrachlorinated dibenzo-p-dioxins ("TCDD") equivalents using toxicity equivalents factors ("TEFS") as described in the Department's BAT and calculated according to PADEP approved method.

003 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) VOC emissions, expressed as total hydrocarbons, shall not exceed 37.6 pounds per hour as an aggregate emission rate for the six (6) combustors. This VOC emission limit is a determination of RACT for VOC emissions (66 FR 54699 and 40 C.F.R. §52.2063).

(b) Compliance with this limitation shall be based on the average of three (3) consecutive test runs.

(c) This emissions cap does not provide any relief from obtaining a plan approval for any future physical change or change in the method of operation of any of the combustors. Future applicability determinations must consider the baseline actual emissions of the emissions units and not the cap. The latter is true even if the company does not request a change in the compliance cap. Furthermore, by accepting this cap and agreeing to consider the six combustors as one emissions unit for NSR/PSD purposes, any future applicability determinations must involve all six combustors, e.g. should major NSR/PSD be triggered for any one combustor or process change, BACT/LAER is required for all six combustors.

004 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

SO₂ emissions, per combustor, shall not exceed any of the following:

(a) 68.45 lbs/hr; and

(b) 29 ppm_{dv}, corrected to 7% oxygen, or shall be reduced by no less than 80% (by weight) on a 24-hour block geometric average using CEMs, whichever is less stringent.

005 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) The toxic metal emissions per combustor shall not exceed any of the following:

(1) Emission concentration, measured in ug/dscm and corrected to 7% oxygen:

Arsenic and Compounds 7.2

Beryllium and Compounds 0.2

Cadmium and Compounds 15.8

Hexavalent Chromium and Compounds 2.3

Nickel and Compounds 25.0

Lead and Compounds 166.0

Mercury and Compounds 50 or 15 percent of the potential mercury emission concentration (85-percent reduction by weight), whichever is less stringent.

(2) Emission rate (lbs/hr) was based on an exhaust rate of 68,679 dscfm, at 7% oxygen.

Arsenic and Compounds 0.00185

Beryllium and Compounds 0.000051

Cadmium and Compounds 0.00406

Hexavalent Chromium and Compounds 0.000591

Nickel and Compounds 0.00643

Lead and Compounds 0.0423

Mercury and Compounds 0.029

(b) Compliance with the emission concentration limits shall be documented through stack tests for each combustor. The results shall be based on ppm_{dv} or ug/dscm, as appropriate, and corrected to 7% oxygen.

006 [25 Pa. Code §127.512]

**SECTION D. Source Level Requirements****Operating permit terms and conditions.**

(a) Visible air contaminants from any combustor stack shall not be emitted in such a manner that the opacity (measured by CEMS) of the emissions is equal to or greater than

- (1) 10% for a period aggregating more than three (3) minutes in any one (1) hour; or
- (2) 30% at any time.

(b) The above visible emission limitations do not apply in either of the following instances:

- (1) when the presence of uncombined water is the only reason for failure of the emission to meet the limitations; or
- (2) when the emission results from sources specified in 25 Pa. Code §123.1(a).

007 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) Total mass dioxin/furan emissions per combustor shall not exceed 30 nanograms per dry standard cubic meter (total mass), corrected to 7% oxygen.

(b) Compliance with this emission limitation shall be based on the average of three (3) consecutive test runs.

008 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) Carbon monoxide emissions per combustor shall not exceed any of the following:

- (1) 100 ppm_{dv}, corrected to 7% oxygen, calculated as a 24-hour block arithmetic average using CEMs; and
- (2) 29.95 lbs/hr.

(b) The CO emission limit applies at all times when municipal wastes are combusted, except during periods of start-up, and shut-down. Provided that the duration of the start-up or shut-down does not exceed three (3) hours per occurrence.

(c) Compliance with the CO limit shall be determined using a 24-hour block arithmetic average. The 24-hour block arithmetic average shall be calculated from one (1) hour arithmetic averages expressed in ppm_{dv}, corrected to 7% oxygen.

009 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

Hydrochloric acid (HCl) emissions per combustor shall be reduced by not less than 95% (by weight), on a 24-hour daily arithmetic basis. This reduction requirement shall be waived if the exhaust concentrations are less than 25 ppm_{dv}, corrected to 7% oxygen, on a 24-hour block arithmetic average, and 36.58 lbs/hr.

010 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) The Department reserves the right to establish and impose more stringent limits than those stated in this permit, based on the test results from each stack test performed, the CEM results and the dispersion modeling techniques as approved by the Department.

(b) Start-up of the combustor commences with the introduction of municipal waste to an empty combustor and does not include any warm up period when the combustor is combusting only a fossil fuel or any other auxiliary fuel, approved by the Department, and no municipal waste is being combusted.

(c) Shutdown of the combustor commences with the cessation of charging municipal waste for the express purpose of shutting down the combustor.

011 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) Total particulate matter (PM) emissions per combustor shall not exceed 5.80 lbs/hr and 0.010 gr/dscf, corrected to 7% oxygen.

(b) PM-10 emissions per combustor shall not exceed 0.012 gr/dscf, corrected to 7% oxygen, and 6.96 lbs/hr.

**SECTION D. Source Level Requirements**

(c) Compliance with the above emission limits shall be based on the average of three (3) consecutive test runs.

Throughput Restriction(s).**# 012 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

(a) Each combustor shall not be operated to exceed 161,000 lbs steam/hr, or 110% of the maximum demonstrated steam load during the most recent annual dioxin/furan performance test, whichever is less, except during the dioxin/furan performance test and the two (2) weeks preceding this test, when the steam load limitations do not apply.

(b) Only the following types of waste are permitted to be burned in the combustors:

- (1) municipal waste, as defined in 25 Pa. Code § 287.1;
- (2) municipal-like residual waste, as permitted in the Department's Waste Permit No. 400593, and the Miscellaneous Section of this permit; and
- (3) residual waste, as permitted in the Department's Waste Permit No. 400593, and the Miscellaneous Section of this permit.

(c) The residual waste (Form R waste list) accepted at the facility shall not exceed the following on a daily basis:

- (1) 10% of the total amount of waste, by weight; or
- (2) 500 tons

(d) The daily amount of residual waste and total amount of waste must be documented in accordance with the conditions of the Department's Waste Permit No. 400593.

(e) Any changes to the waste streams or types of waste shall be approved by the Department.

Control Device Efficiencies Restriction(s).**# 013 [25 Pa. Code §127.503]****Application information.**

Emissions from each combustor shall be controlled by individual dry acid gas scrubbers and pulse-jet cleaning type fabric collectors.

014 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

Compliance with the parameters set forth in the Conditions below assures compliance with the toxic metal emission limits in Condition #005 of this Section.

(a) Each combustor shall be operated to maintain the combustion gases temperature greater than 1800°F for at least one (1) second, calculated on an hourly average (1-hour block arithmetic). The temperature sensor shall be located at the furnace roof position approved by the Department for each combustor. The temperature at this location shall be maintained at greater than 850°F, (a Department approved reference temperature which corresponds to 1800°F for at least one second). Each combustor auxiliary burners shall be controlled automatically to maintain the combustion gases at the aforementioned temperature whenever refuse is being incinerated. In the event that furnace combustion gas flow rates change significantly from any previous alternate location verification test, or at the Department's request, the permittee shall perform a new alternative location verification and retention test.

(b) The flue gas temperature, measured at the particulate matter control device inlet and averaged arithmetically in 4-hour block, shall not exceed 300°F or 30°F above the maximum demonstrated particulate matter control device temperature, as defined in 40 C.F.R. §60.51b, whichever is lower, except during the annual dioxin/furan or mercury performance test and the 2 weeks preceding the annual dioxin/furan or mercury performance test, when the particulate matter control device inlet flue gas temperature limitation of 300°F is applicable.

(c) The above temperature limits apply and remain enforceable at all times, until and unless the Department grants a waiver

**SECTION D. Source Level Requirements**

in writing for the purpose of evaluating system performance, testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions.

II. TESTING REQUIREMENTS.**# 015 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

- (a) The permittee shall conduct annual performance test on each of the combustors for the the following pollutants:
- (1) total particulate matter, and PM-10 (including particle sizing);
 - (2) arsenic and compounds (expressed as arsenic);
 - (3) cadmium and compounds (expressed as cadmium);
 - (4) hexavalent chromium and compounds (expressed as chromium);
 - (5) nickel and compounds (expressed as nickel);
 - (6) lead and compounds (expressed as lead);
 - (7) beryllium and compounds (expressed as beryllium);
 - (8) mercury and compounds (expressed as mercury);
 - (9) PCDD and PCDF (expressed as 2,3,7,8 TCDD equivalents calculated according to the Department approved method and as total dioxin and furan);
 - (10) VOC (expressed as total hydrocarbons);
 - (11) PAH, including Benzo(a)pyrene;
 - (12) NO_x;
 - (13) SO₂;
 - (14) HCl;
 - (15) CO; and
 - (16) Visible emissions of fugitive combustion ash from the ash conveying system (Source ID 111)
- (b) If the emissions of PM, or PM₁₀, or any of the toxic metals from any one of the combustors equal to or exceed 80% of the emission limitations, that combustor(s) shall be tested semiannually for each of the pollutants that equals to or exceeds 80% of the emission limitations. Testing frequency can revert back to annually when the tested emissions are less than 80% of the emission limitations for a consecutive period of 24-months, plus the permittee notifies the Department of such testing schedule reversion.
- (c) Performance testing for SO₂, NO_x, CO, and HCl may be substituted by CEM data to demonstrate compliance with the emission limitations. The permittee shall perform SO₂, NO_x, CO, HCl CEMS performance audit for each combustor during each annual performance test.
- (d) The amount of waste incinerated during a stack test shall be an adequate representation of the waste load to be processed by the facility.
- (e) Unless approved by the Department prior to the testing, the following procedures and test methods shall be used to determine compliance with the emission limits:
- (1) EPA reference method 1, for the sampling sites and traverse points.
 - (2) EPA reference method 3 or 3A, for the gas analysis.
 - (3) EPA reference methods 5, 201A/202 for PM and PM₁₀. Both the front half and back half catches are to be analyzed and reported. However, only the front half catch is to be utilized in determining compliance.
 - (4) EPA reference method 9, for opacity.
 - (5) EPA reference method 29, for cadmium, lead and mercury, with a minimum sample volume to be 1.7 cubic meters for mercury. The percent weight reduction for mercury emissions shall be computed using the mercury concentrations measured at the inlet and outlet of the control device, corrected to 7% oxygen, (dry basis).
 - (6) EPA reference method 26, or 26A, for HCl.
 - (7) EPA reference method 19, for SO₂.
 - (8) EPA reference method 6, 6A, or 6C, for the RATA tests on the SO₂ CEMS.
 - (9) EPA reference method 19, for NO_x.

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- (10) EPA reference method 7, 7A, 7C, 7D, or 7E, for the RATA test on the NO_x CEMS.
 - (11) EPA reference method 10, 10A, or 10B, for CO.
 - (12) EPA reference method 23, for Dioxins/furans.
 - (13) EPA reference method 22, for visible emissions of fugitive combustion ash from the ash conveying system (Source ID 111).
- (f) Each combustor shall be equipped with test ports so that periodic measurement of the 1800°F for one (1) second residence time requirement can be conducted at the Department's request.

III. MONITORING REQUIREMENTS.**# 016 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

(a) The Department approved Continuous Emission Monitors (CEMs) shall be operated and maintained in accordance with 25 Pa. Code Chapter 139, the Department's "Continuous Source Monitoring Manual (CSM Manual)" (Revision No.5 - March 1993), and latest amendments ("CSM Manual") for the following:

- (1) CO monitored both upstream and downstream of the air pollution control equipment;
- (2) SO₂ monitored upstream and downstream of the air pollution control equipment;
- (3) NO_x monitored downstream of the air pollution control equipment;
- (4) HCL monitored downstream of the air pollution control equipment; and
- (5) Opacity of the exhaust gases.

(b) The following operating parameters shall be monitored and recorded continuously using the Department approved continuous monitoring system (CMS) for each combustor at the locations, if specified:

- (1) Oxygen, at both upstream and downstream of the air pollution control equipment;
- (2) Temperature of the gases exiting the combustor monitored at the furnace roof position approved by the Department;
- (3) Temperature of the gases at the inlet of each baghouse for the combustors.
- (4) The lime slurry injection rate to the dry acid gas scrubber; and
- (5) The steam load for each combustor in lb/hr and calculated in 4-hour block arithmetic averages.

(c) The permittee shall replace all thermocouples, at the furnace roof position of each combustor, on a quarterly basis with those that have been certified in accordance with NIST (National Institute of Standards and Testing).

(d) The permittee shall monitor and record supplemental fuel usage on a monthly basis.

(e) The permittee shall ensure that the Data Acquisition System maintains an uninterruptible power supply until the combustors are in a "process down" mode of operation.

(f) The selected parameters that define "normal operations" for CEM reporting purposes are when the dry inlet O₂ is less than or equal to 18.0% and the steam flow is greater than or equal to 50,000 lbs/hr. If either of the conditions is not met, the CEM reports the combustor as "process down" for that minute.

(g) The Department reserves the right to require the permittee to install, operate and maintain an uninterruptible power supply (UPS) for the continuous monitoring system at the facility. The requirement to install a UPS will be based on power outages and the loss of data and the affect on the CEM system.

017 [25 Pa. Code §139.111]**Municipal waste incinerator monitoring requirements.**

The CEMS and CMS shall be operated and maintained to achieve the following data availability standards:

- (a) Carbon Monoxide (CO) and Temperature: 100% valid hours/day, where a valid hour is defined as greater than or equal to 90% valid readings/hour (54 minutes).
- (b) Opacity and oxygen (O₂): Greater than or equal to 95% valid hours/day, where a valid hour is defined as greater than or

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equal to 75% valid readings/hour (45 minutes).

(c) Hydrochloric Acid (HCl), Sulfur dioxide (SO₂), and Nitrogen oxides (NO_x): Greater than or equal to 90% valid hours/month, where a valid hour is defined as greater than or equal to 75% valid readings/hour (45 minutes).

IV. RECORDKEEPING REQUIREMENTS.**# 018 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The permittee shall maintain, on-site, the following records for a minimum of five (5) years, in either paper copy, or computer-readable format, unless an alternative format is approved by the Department.

(a) the calendar date of each record.

(b) all emission averages from the continuous monitoring systems, which include: all one (1) hour average SO₂, NO_x, CO, and HCl emission concentrations, combustor unit load measurements, and PM control device inlet temperatures.

(c) all block geometric or arithmetic average concentrations, and percent reductions, as applicable, for SO₂, NO_x, CO, HCl, combustor unit load level, and PM control device inlet temperatures.

(d) identification of the calendar dates when any of the average emissions, percent reductions, or operating parameters recorded for SO₂, NO_x, CO, HCl, combustor unit load levels, particulate matter control device inlet temperature, or opacity, are above the applicable limits, with reasons for such exceedances and a description of the corrective action taken.

(e) identification of the calendar dates when the minimum hours of any of the data for SO₂, NO_x, CO, HCl emissions data, combustor unit load, PM control device inlet temperature and/or opacity have not been obtained, the reason for not obtaining sufficient data, and a description of corrective action taken.

(f) the results of the daily drift tests and quarterly accuracy determinations for the SO₂, NO_x, CO, HCl CEMs.

(g) results of all performance tests, including supporting calculations, along with maximum demonstrated unit load, and maximum PM control device inlet temperature.

(h) the names of the combustor chief facility operator, shift supervisors, and control room operators who have been fully certified, or provisionally certified, by the American Society of Mechanical Engineers (ASME) or an equivalent State-approved certification, including the dates of initial and renewal certifications and documentation of current certification. This subcondition does not apply to those individuals who have obtained full certification from the ASME on or before August 23, 1999.

(i) the names of the combustor chief facility operator, shift supervisors, and control room operators who have completed the EPA municipal waste combustor operator training course or a State-approved equivalent course, including documentation of training completion. Those chief facility operators, shift supervisors and control room operators who have obtained full certification prior to August 23, 1999, do not need to be recertified.

(j) the supplemental fuel usage.

V. REPORTING REQUIREMENTS.**# 019 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

(a) The permittee shall submit, to both the USEPA and the Department, semiannual reports that shall include the following information :

(1) A list of PM, lead, cadmium, opacity, mercury, dioxin/furans, and fugitive ash emission levels achieved during the performance tests.

**SECTION D. Source Level Requirements**

- (2) A list of the highest emission level recorded for SO₂, NO_x, CO, HCl, municipal waste combustor unit load level, and PM control device inlet temperature based on the data recorded using CMS.
- (3) The highest opacity level measured and recorded.
- (4) The total number of hours per calendar quarter and hours per calendar year that valid data for SO_x, NO_x, CO, HCl, municipal waste combustor unit load, or PM control device inlet temperature data were not obtained.
- (5) The total number of hours that data for SO₂, NO_x, CO, HCl, combustor load, and PM control device inlet temperature were excluded from the calculation of average emission concentrations of parameters.
- (b) The semiannual reports shall include information from the preceding calendar year for the year being reported, in order to provide the Department with a summary of the performance of this facility over a 2-year period.
- (c) The semiannual report shall include the following information for any recorded pollutant or parameter that does not comply with the pollutant or parameter limit:
- (1) SO₂, NO_x, CO, HCl, combustor load level, PM control device inlet temperature, and opacity.
 - (2) Any exceedance of the applicable levels for the following: PM, opacity, mercury, cadmium, lead, dioxin/furans, and fugitive ash. A copy of the test report documenting the emission levels and the corrective action taken, shall accompany the report.
- (d) The semiannual reports shall be submitted as a paper copy, postmarked on or before August 1 and February 1 following the proceeding 6-month period ending each December and June, respectively.
- (e) Temperature values submitted in each quarterly report shall consist of actual temperature values plus 950°F, the difference measured at the surrogate location and the demonstrated 1800°F for one (1) second retention time location.
- (f) All CEM reports, including CEMS violations, shall be submitted to the Department within thirty (30) days after each quarter, unless otherwise approved the Department. The Department reserves the right to require the report submissions with a format acceptable to the Department.
- (g) The permittee shall submit the following reports:
- (1) a semi annual deviation report, due by October 1, of each year, for the period covering January 1 through June 30 of the same year. Note: The annual certification of compliance fulfills the obligation for the second deviation reporting period (July 1 through December 31 of the previous year).
 - (2) For those contaminants monitored by a Department certified CEMS for which the Department's Enforcement Policy - Continuous Emission Monitoring System (CEMS) established penalties for excess emissions, the aforementioned notification and reporting requirements shall be waived.

VI. WORK PRACTICE REQUIREMENTS.

020 [25 Pa. Code §127.512]
Operating permit terms and conditions.

(a) Combustor Operation Requirements

(1) No solid waste shall be charged into the combustor(s) until equilibrium has been attained in the furnace zones and the temperature of the combustion gases reach 1800°F (based upon a surrogate temperature of 850°F as displayed on the facility CEMs) for one (1) second of retention time when the combustor is empty. All control equipment shall be operational and functioning properly prior to the introduction of solid waste into the combustor(s).

(2) During the process of all planned shut downs of each combustor, auxiliary burners shall be used to ensure that the temperature of the combustion gases does not drop below 1600°F while any waste material is still being incinerated. All

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control equipment shall be operational and functioning properly until all of the solid waste is incinerated.

(3) The charging of waste to each combustor shall automatically cease through the use of an interlock system, if:

(A) The combustor temperature measured at the furnace roof, at the Department approved location, drops below 650°F, (a Department approved reference temperature which corresponds to 1600°F), for a 15-minute period, or,

(B) The CO emissions exceed 600 ppmv, corrected to 7% oxygen on a dry basis for a period of fifteen (15) minutes (this requirement is waived during the startup periods), or

(C) The flue gas oxygen (as measured at the oxygen monitor upstream of the control device) level drops below 3% (wet basis or equivalent dry) for a 15-minute period, or,

(D) The opacity of the exhaust gases is equal to or greater than 10% for a period of 15 minutes.

(4) An adequate spare parts inventory shall be maintained to ensure timely repairs of major component malfunctions.

(b) Operator Training and Certification Requirements

(1) All personnel involved with the operation and maintenance of the combustors, associated pollution control equipment and monitoring equipment shall complete the comprehensive training program as specified in 40 C.F.R. §§60.56a and 60.54b, and according to the schedules specified in 40 CFR §60.39b(c)(4). This program includes operator training to identify waste material and actions to be taken to correct conditions which result from the initiation of the interlock system.

(2) Each facility operator and shift supervisor shall obtain and maintain a current provisional operator certification from either the American Society of Mechanical Engineers (ASME) or a state certification program, and each shall have completed full certification or shall have scheduled a full certification exam with either the American Society of Mechanical Engineers or a State Certification program.

(3) Except as provided in subcondition (i) below, each combustor shall not be operated at any time unless one of the following people is on duty at the source:

(A) A fully certified chief facility operator,

(B) A provisionally certified chief facility operator who is scheduled to take the full certification exam,

(C) A fully certified shift supervisor, or

(D) A provisionally certified shift supervisor who is scheduled to take the full certification exam.

(4) Stand-In Provisions

(A) If one of the persons, listed in Condition (b)(3) above, must leave the facility during their operating shift, a provisionally certified control room operator who is on-site, may stand in.

(B) A provisionally certified control room operator may stand in when the chief facility operator or shift supervisor is off-site for more than twelve (12) hours (a normal work shift), but less than two (2) weeks for normal off-site activities including: attending meetings, conferences, training, work travel, temporary reassignment, personal vacation, sick leave, family leave or similar activities. The permittee shall notify the Department, in writing, (by facsimile), within 24 hours, that the stand-in period will exceed twelve (12) hours (a normal work shift).

(5) In the event that the medical conditions, temporary reassignment, job transfer, resignation, dismissal or other circumstances beyond the permittee's control results in or is expected to result in the absence of the chief facility operator or shift supervisor for a period exceeding two (2) weeks, the permittee shall notify the Department in writing and identify what conditions resulted in such absence and what corrective actions have been taken to correct such absence. At the Department's request, the permittee shall prepare written status summary reports demonstrating that a good faith effort has been made and continues to be made to correct the conditions resulting in the absence of the chief facility operator or shift supervisor.

(6) A provisionally certified operator who is newly promoted or recently transferred to a shift supervisor position or a chief facility operator position at the municipal waste combustion unit may perform the duties of the certified chief facility operator or certified shift supervisor without notice to, or approval by, the Department for up to six months before taking the ASME QRO certification exam.

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(7) The permittee shall review the operating manual with each person who has responsibilities affecting the operation of this facility including, but not limited to: chief facility operators, shift supervisors, control room operators, ash handlers, maintenance personnel, and crane/load operators.

(8) The operating manual review shall include, but not be limited to: operator training to identify waste materials referred to as large non-combustible bulky materials, combustible bulky materials, unacceptable waste, as defined in this permit, and action to be taken to correct conditions which result from abnormal/emergency operation, running and/or shutdown that would cause the initiation of the interlock system.

(9) Each operator shall undergo initial training the date prior to the day the person assumes responsibilities affecting the combustor unit operation, and annually thereafter.

(10) The operating manual shall be kept in a readily accessible location for all persons required to undergo training, and be available to the USEPA and/or the Department upon request.

(11) The permittee shall keep and update on a yearly basis a site-specific operating manual that shall, at a minimum, address the following:

- (A) a summary of the applicable standards under this Operating Permit;
- (B) a description of basic combustion theory applicable to the combustor(s);
- (C) procedures for handling, receiving, and feeding municipal solid waste;
- (D) combustor startup, shutdown, and malfunction provisions;
- (E) procedures for maintaining proper combustion air supply levels;
- (F) procedures for operating the combustors within the standards established under this Operating Permit;
- (G) procedures for responding to periodic upset or off-specification conditions;
- (H) procedures for minimizing particulate matter carryover;
- (I) procedures for ash handling;
- (J) procedures for monitoring combustion emissions;
- (K) procedures for reporting and recordkeeping;
- (L) procedures for responding to emergency situations; and
- (M) procedures for monitoring the degree of waste burnout.

(c) Waste Management

(1) The following wastes or materials shall be removed from the tipping room floor for appropriate disposal:

- (A) Unacceptable waste, visible hazardous materials, and visible unapproved residual waste as defined by 25 Pa. Code § 287.1 of the Bureau of Waste Management Regulations;
- (B) Large non-combustible bulky materials, including visible automotive batteries;
- (C) Combustible bulky materials.

(2) The amount of solid waste material stored in the tipping room shall be less than the amount of solid waste material which can be reasonably incinerated within 120 hours of its delivery. If there is reason to believe that the combustor(s) are not capable of incinerating the solid waste material specified in the time frame above, the Department shall be notified in accordance with the malfunction reporting condition of this permit. No additional waste material shall be accepted and all the solid waste material shall be removed, if needed, to prevent the escape of odor beyond the property line. No air shall be exhausted to the outdoor atmosphere from this building during such an occurrence without being treated in the combustor(s) unless otherwise authorized by the Department.

(3) Except recyclable materials, open storage of solid waste outside of a building is prohibited.

(4) All wastes or materials which can be airborne or spilled shall be transported in closed containers or tarped trucks.

(d) Tipping Area Management

(1) The tipping area shall be operated at a negative pressure, when any combustor is in operation. The air passing

**SECTION D. Source Level Requirements**

through all natural draft openings surrounding the tipping floor, including the MWC charging area, shall flow inward continuously.

(2) To ensure negative pressure on the tipping area, at a minimum, the permittee shall:

- (A) limit the number of open entrance and exit doors to the tipping floor to one in each direction;
- (B) close all truck delivery doors to the tipping floor between 8:00 pm and 5:00 am every day and all day on Sunday;
- (C) use and maintain plastic flaps or other equivalent shielding to reduce the effective opening area on any open truck delivery door to the tipping floor; and
- (D) on a daily basis, inspect and log that all roof vents over the tipping floor and combustor charging chutes are closed and that all tipping floor doors and openings not in use that day are closed.

(e) The permittee shall operate and maintain a telephone dial-up telemetry system which has been approved by the Department, and is consistent with the "Air Quality Compliance Assurance Policy for Municipal Waste Incinerators", July 1989, as revised (CAP for MWI).

VII. ADDITIONAL REQUIREMENTS.

021 [25 Pa. Code §127.512]

Operating permit terms and conditions.

- (a) The combustors are subject to the Department's Air Quality Compliance Assurance Policy (CAP) for Municipal Waste Incinerators finalized and signed by the Department on July 12, 1989, and its latest amendments.
- (b) The combustors are subject to the provisions of EPA approved State section 111(d)/129 plan implementing 40 C.F.R. 60 subpart Cb for Large Municipal Waste Combustors, dated April 27, 1998 (67 FR 68935).
- (c) The design, construction, and operation of each combustor as stated in the Plan Approval Application, in accordance with the Department's BAT for MWI and its subsequent amendments issued up to the issuance of the Plan Approval and the conditions of the Plan Approval shall be adhered to. Department approval must be obtained prior to modification of any of the design, construction, and operation of each combustor.
- (d) The combustors are not subject to the provisions of 40 C.F.R. 60 Subpart Db as per 40 C.F.R. §60.40b(k).

***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

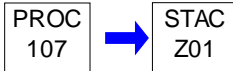
Source ID: 107

Source Name: VEHICLE TRAFFIC ON ROADS

Source Capacity/Throughput:

N/A

DUST

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.1]****Prohibition of certain fugitive emissions**

No person may permit the emission into the outdoor atmosphere of a fugitive air contaminant from a source other than the following:

- (a) Grading, paving, and maintenance of roads and streets.
- (b) Use of roads and streets. Emissions from material in or on trucks, railroad cars, and other vehicular equipment are not considered as emissions from use of roads and streets.
- (c) Stockpiling of materials.

002 [25 Pa. Code §123.2]**Fugitive particulate matter**

A person may not permit fugitive particulate matter to be emitted into the outdoor atmosphere from this source, if such emissions are visible at the point the emissions pass outside the person's property.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.**# 003 [25 Pa. Code §123.1]****Prohibition of certain fugitive emissions**

The permittee shall take all reasonable actions to prevent particulate matter from becoming airborne from this source. These actions shall include, but not be limited to, the following:

- (a) Application of asphalt, water, or other suitable chemicals, on dirt roads, material stockpiles and other surfaces which may give rise to airborne dusts.
- (b) Paving and maintenance of roadways.

**SECTION D. Source Level Requirements**

(c) Prompt removal of earth or other material from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water, or by other means.

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

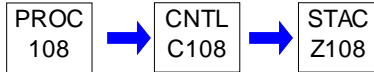
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SECTION D. Source Level Requirements

Source ID: 108

Source Name: COOLING TOWER

Source Capacity/Throughput:

**I. RESTRICTIONS.****Emission Restriction(s).**

001 [25 Pa. Code §127.512]

Operating permit terms and conditions.

(a) PM10 emissions from the cooling tower shall not exceed 2.39 tons per year on a 12-month rolling sum.

(b) The total dissolved solids (TDS) concentration in the circulating water shall not exceed 2,780 ppm, by weight.

Throughput Restriction(s).

002 [25 Pa. Code §127.512]

Operating permit terms and conditions.

The cooling tower is permitted to use Chester Water Authority (CWA) water and/or DELCORA secondary effluent as makeup water.

Control Device Efficiencies Restriction(s).

003 [25 Pa. Code §127.512]

Operating permit terms and conditions.

If DELCORA secondary effluent is used, the conductivity of the makeup water, measured at Permeate, shall not exceed 200 uS/cm on a daily average basis to be considered the TDS removal efficiency of 95%.

II. TESTING REQUIREMENTS.

004 [25 Pa. Code §127.512]

Operating permit terms and conditions.

(a) The permittee shall measure circulating water TDS concentration at the inlet of the cooling tower water once per calendar quarter.

(b) The permittee shall record the circulating water conductivity measured at the inlet of the cooling tower at the same time when the above samples are taken.

(c) The TDS concentrations shall be measured using methods and/or procedures approved by the Department.

(d) The data of conductivity vs TDS concentration collected may be used for re-establishing the conductivity limit in the future, when the Department believes that an adjustment is necessary.

III. MONITORING REQUIREMENTS.

005 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

The permittee shall operate and maintain devices that continuously monitor and record the following:

(a) The amount of cooling tower circulating water on a monthly basis, or the rated capacity of the pump in gallons per hour and pump operating hours on a monthly basis.

(b) The circulating water conductivity, measured at the inlet of the cooling tower, averaged daily and monthly.

(c) The makeup water conductivity, measured at Permeate, on a daily average.

**SECTION D. Source Level Requirements****IV. RECORDKEEPING REQUIREMENTS.****# 006 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

(a) The permittee shall keep the following records for 5 years:

(1) The PM10 emissions on a monthly basis calculated using the following equation, and 12-month rolling sum:

$$E = Q \text{ (gal/month)} \times 8.34 \text{ (lb/gal)} \times \text{Drift rate (0.001\%)} \times \text{TDS (ppmw in circulating water)} \times 53 \text{ \% mass (smaller than PM10)}$$

Where:

E = Emissions in pounds per month (lb/month)

Q = Circulating water rate (gallons per month)

1 gallon of water = 8.34 lb

% mass smaller than PM10 = 53%

(2) The circulating water conductivity readings on a daily average and monthly average.

(3) The amount of circulating water in gallons per month either recorded directly or calculated through the rated capacity of the pump and monthly operating hours.

(4) The date and the TDS concentrations in ppmw measured each quarter and the conductivities readings at each time of sampling. The purpose of these records is to establish a basis of the conductivity vs TDS concentration.

(5) The makeup water conductivity measured at Permeate as daily average.

(b) The permittee may use TDS concentration of 2,780 ppmw to calculate the PM emissions, if the monthly rolling average conductivity is below 4,000 uS/cm.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.**# 007 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

(a) The permittee shall operate the ultrafiltration system and reverse osmosis unit in accordance with the manufacturer's specifications and good air pollution control practices.

(b) The drift eliminators shall be installed, operated, and maintained in accordance with the manufacturer's specifications and good air pollution control practices.

(c) The drift eliminators shall not be modified or repaired without the Department's prior written approval, if the modification or repair will result in change of the eliminators' removal efficiency.

(d) The conductivity of the cooling tower circulating water shall be maintained below 4,000 uS/cm on a monthly average.

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

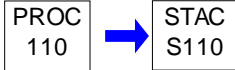
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**SECTION D. Source Level Requirements**

Source ID: 110

Source Name: LIME STORAGE SILO

Source Capacity/Throughput:

**I. RESTRICTIONS.****Emission Restriction(s).**

001 [25 Pa. Code §123.13]

Processes

Particulate matter emissions from the exhausts associated with the lime silo(s) shall not exceed 0.02 gr/dscf.

Control Device Efficiencies Restriction(s).

002 [25 Pa. Code §127.512]

Operating permit terms and conditions.

The silo fabric filter equipment will be operated below prescribed manufacturer operating pressures during offloading. Compliance with this operating pressure limit deemed compliance with the particulate matter emission limit in Condition #001 for this source.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

003 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

- (a) A silo area operator must be present when the silo is being filled.
- (b) The silo area operator shall
 - (1) Monitor the loading operating pressure and observe the silo stack for visible emissions during the silo loading.
 - (2) Record the silo loading
 - (i) date;
 - (ii) visible emissions observed;
 - (iii) the loading operating pressure;
 - (iv) correct actions taken, if any; and
 - (v) initial each record.

IV. RECORDKEEPING REQUIREMENTS.

004 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

The permittee shall keep the following records for each silo loading operation:

- (a) date;
- (b) visible emissions observed;
- (c) the loading operating pressure;
- (d) correct actions taken, if any; and
- (e) initial each record.

**SECTION D. Source Level Requirements****V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

005 [25 Pa. Code §127.512]

Operating permit terms and conditions.

If visible emissions present during silo loading, the permittee shall

- (a) investigate the incident;
- (b) take corrective actions; and
- (c) record the date of the incident and specify the corrective actions taken.

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

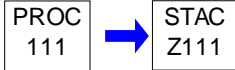
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**SECTION D. Source Level Requirements**

Source ID: 111

Source Name: ASH HANDLING

Source Capacity/Throughput:

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

Visible emissions of fugitive combustion ash from the ash conveying system shall not be in excess of 5% of the observation period (9 minutes per 3-hour period), as determined by EPA Reference Method 22, except as described below:

- (a) the emission limit does not apply to visible emissions discharged inside buildings or enclosures; and
- (b) the emission limit does not apply during the maintenance and repair of ash handling systems.

II. TESTING REQUIREMENTS.**# 002 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

Testing requirements for this source (Ash Handling) are specified in Section E - Combustors, Source Group 1.

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.**# 003 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

Recordkeeping requirements for this source (Ash Handling) are specified in Section E - Combustors, Source Group 1.

V. REPORTING REQUIREMENTS.**# 004 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

Reporting requirements for this source (Ash Handling) are specified in Section E - Combustors, Source Group 1.

VI. WORK PRACTICE REQUIREMENTS.**# 005 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

- (a) The ash removal equipment including the ash extractors and fly ash conveyors shall be enclosed.
- (b) The ash shall be loaded in an enclosed area or handled wet in closed containers.

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

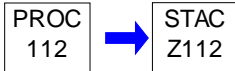
Source ID: 112

Source Name: COLD DEGREASERS (2)

Source Capacity/Throughput:

N/A

SOLVENT

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.**# 001 [25 Pa. Code §129.63]****Degreasing operations**

(a) The permittee shall maintain the following information:

- (1) The name and address of the solvent supplier.
- (2) The type of solvent including the product or vendor identification number.
- (3) The vapor pressure of the solvent measured in mm hg at 20°C (68°F).

(b) An invoice, bill of sale, certificate that corresponds to a number of sales, Material Safety Data Sheet (MSDS), or other appropriate documentation acceptable to the Department may be used for compliance status.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.**# 002 [25 Pa. Code §129.63]****Degreasing operations**

(a) The immersion cold cleaning machines shall have a freeboard ratio of 0.50 or greater.

(b) The immersion cold cleaning machines shall:

(1) Have a permanent, conspicuous label summarizing the operating requirements in paragraph (c), below. In addition, the label shall include the following discretionary good operating practices:

(A) Cleaned parts should be drained at least 15 seconds or until dripping ceases, whichever is longer. Parts having cavities or blind holes shall be tipped or rotated while the part is draining. During the draining, tipping or rotating, the parts should be positioned so that solvent drains directly back to the cold cleaning machine.

(B) When a pump-agitated solvent bath is used, the agitator should be operated to produce a rolling motion of the solvent with no observable splashing of the solvent against the tank walls or the parts being cleaned.

SECTION D. Source Level Requirements

- (C) Work area fans should be located and positioned so that they do not blow across the opening of the degreaser unit.
- (2) Be equipped with a cover that shall be closed at all times except during cleaning of parts or the addition or removal of solvent. For remote reservoir cold cleaning machines which drain directly into the solvent storage reservoir, a perforated drain with a diameter of not more than 6 inches shall constitute an acceptable cover.
- (c) The cold cleaning machines shall be operated in accordance with the following procedures:
- (1) Waste solvent shall be collected and stored in closed containers. The closed containers may contain a device that allows pressure relief, but does not allow liquid solvent to drain from the container.
 - (2) Flushing of parts using a flexible hose or other flushing device shall be performed only within the cold cleaning machine. The solvent spray shall be a solid fluid stream, not an atomized or shower spray.
 - (3) Sponges, fabric, wood, leather, paper products and other absorbent materials may not be cleaned in the cold cleaning machine.
 - (4) Air agitated solvent baths may not be used.
 - (5) Spills during solvent transfer and use of the cold cleaning machine shall be cleaned up immediately.
- (d) The permittee may not use any solvent with a vapor pressure of 1.0 millimeter of mercury (mm Hg) or greater and containing greater than 5% VOC by weight, measured at 20°C (68°F) containing VOCs.
- (e) The permittee shall obtain the following written information from the solvent provider:
- (1) The name and address of the solvent supplier.
 - (2) The type of solvent including the product or vendor identification number.
 - (3) The vapor pressure of the solvent measured in mm hg at 20°C (68°F).

VII. ADDITIONAL REQUIREMENTS.**# 003 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

To avoid being subject to the requirements of 40 CFR Part 63 Subpart T, the permittee shall not use any solvent, in the degreasers, containing methylene chloride (CAS No. 75-09-2), perchloroethylene (CAS No. 127-18-4), trichloroethylene (CAS No. 79-01-6), 1,1,1-trichloroethane (CAS No. 71-55-6), carbon tetrachloride (CAS No. 56-23-5) or chloroform (CAS No. 67-66-3), or any combination of these halogenated HAP solvents, in a total concentration greater than 5 percent by weight, as a cleaning and/or drying agent.

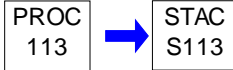
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**SECTION D. Source Level Requirements**

Source ID: 113

Source Name: EMERGENCY ENGINE

Source Capacity/Throughput:

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

Nitrogen Oxides (NO_x) emissions from this engine shall not exceed 100lb/hr, 1000 lb/day, 2.75 tons per ozone season, and 6.6 tons per year on a 12-month rolling sum.

002 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4205]**Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines****What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?**

As per 40 CFR §§60.4205(b) and 60.4202(a)(2), the emissions from the engine shall not exceed the following in grams per HP-Hour over the entire life of the engine:

- (a) 3.0 for NO_x + HC
- (b) 2.6 for CO
- (c) 0.15 for PM

003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4206]**Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines****How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?**

The permittee must operate and maintain the engine to achieve the emission standards as required in 40 CFR § 60.4205(b) over the entire life of the engine.

Fuel Restriction(s).**# 004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4207]****Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines****What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?**

The permittee must use diesel fuel that meets the following per-gallon standards:

- (1) Sulfur content: 15 ppm maximum;
- (2) Cetane index or aromatic content:
 - (i) A minimum cetane index of 40; or
 - (ii) A maximum aromatic content of 35 volume percent.

Operation Hours Restriction(s).**# 005 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

The operation of the engine shall not exceed 500 hours per year.

006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4211]**Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines****What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?**

In order for this engine to be considered an emergency engine, the engine shall be operated in accordance with the

**SECTION D. Source Level Requirements**

requirements specified in 40 CFR §60.4211(f).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

**# 007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4209]
Subpart III - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?**

The emergency engine must be equipped with a non-resettable hour meter.

IV. RECORDKEEPING REQUIREMENTS.

**# 008 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4214]
Subpart III - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?**

The permittee must keep the following records for the engine:

- (a) Reason that the engine was in operation; and
- (b) Time of each operation of the engine.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

**# 009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4211]
Subpart III - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?**

(a) As per 40 CFR §60.4211(a), the permittee shall

- (1) Operate and maintain the engine and control device according to the manufacturer's emission-related written instructions;
- (2) Change only those emission-related settings that are permitted by the manufacturer; and
- (3) Meet the requirements of 40 CFR Parts 89 and 1068 that apply.

(b) The engine must be installed and configured according to the manufacturer's emission-related specifications.

VII. ADDITIONAL REQUIREMENTS.

**# 010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4200]
Subpart III - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
Am I subject to this subpart?**

(a) Source ID 113 is an emergency stationary CI RICE purchased and installed in 2011.

Manufacturer: Cummins Inc.

**SECTION D. Source Level Requirements**

Model No.: QSL9-G2 NR3
 EPA Certification No.: CEX-STATCI-11-21 (Date issued: 10/14/2010)
 EPA Diesel Engine Family: BCEXL0540AAB
 Engine nameplate HP: 364
 Displacement: 8.9 liters
 Emission control device: Turbocharged and CAC

(b) The permittee fulfilled the requirement of 40 CFR §60.4211(c) by purchasing an engine certified to the emission standards in 40 CFR §60.4205(b).

011 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4218]
Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
What parts of the General Provisions apply to me?

The permittee shall comply with the General Provisions in 40 CFR §§60.1 through 60.19 that apply.

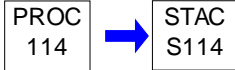
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**SECTION D. Source Level Requirements**

Source ID: 114

Source Name: EMERGENCY FIRE PUMP ENGINE

Source Capacity/Throughput:

**I. RESTRICTIONS.****Operation Hours Restriction(s).****# 001 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6640]****Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****How do I demonstrate continuous compliance with the emission limitations, operating limitations, and other requirements?**

The permittee must operate the emergency stationary RICE according to the requirements specified in 40 CFR §63.6640(f).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.**# 002 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6625]****Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****What are my monitoring, installation, operation, and maintenance requirements?**

The permittee must install a non-resettable hour meter if one is not already installed.

IV. RECORDKEEPING REQUIREMENTS.**# 003 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6655]****Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****What records must I keep?**

(a) The permittee must keep records of the maintenance conducted on the stationary RICE.

(b) The permittee must keep records of the hours of operation of the engine recorded through the non-resettable hour meter. The permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.**# 004 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6602]****Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****What emission limitations must I meet if I own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions?**

(a) Except during periods of startup, the permittee shall

(1) Change oil and filter every 500 hours of operation or annually, whichever comes first.

**SECTION D. Source Level Requirements**

- (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.
- (b) During periods of startup, the permittee shall 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.

005 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6605]
Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

What are my general requirements for complying with this subpart?

- (a) The permittee must be in compliance with the requirements in 40 CFR 63 Subpart ZZZZ that apply to this engine at all times.
- (b) At all times the permittee must operate and maintain this engine and monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions.

006 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6625]
Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

What are my monitoring, installation, operation, and maintenance requirements?

The permittee shall operate and maintain the stationary RICE according to the manufacturer's emission-related written instructions or develop an 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.

VII. ADDITIONAL REQUIREMENTS.

007 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6585]
Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Am I subject to this subpart?

The engine (manufactured by Cummins Engine Company, Inc. Model No. NT-855 F 3) is subject to the provisions of 40 CFR 63 Subpart ZZZZ.

008 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6665]
Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

What parts of the General Provisions apply to me?

The permittee must comply with the general provisions of 40 CFR 63 Subpart A that apply.

***** Permit Shield in Effect. *****



SECTION E. Alternative Operation Requirements.

No Alternative Operations exist for this Title V facility.

**SECTION F. Emission Restriction Summary.**

Source Id	Source Description		
101	ROTARY COMBUSTER 1		
Emission Limit			Pollutant
7.200 UG/DSCM	7% O2		Arsenic Coumpounds
0.200 UG/DSCM	7% O2		Beryllium Compounds
29.950 Lbs/Hr	7% O2 dry basis		CO
100.000 PPMV	7% O2 dry basis 24-hr block arithmetic average		CO
15.800 UG/DSCM	7% O2		Cadmium Compounds
2.300 UG/DSCM	7% O2		Chromium Compounds
30.000 UG/DSCM	7% O2		Furan
25.000 PPMV	7% O2 dry basis on a 24 hr daily arithmetic average or 95% weight reduction		Hydrogen Chloride (Anhydrous)
36.580 Lbs/Hr	7% O2 dry basis		Hydrogen Chloride (Anhydrous)
166.000 UG/DSCM	7% O2		Lead
50.000 UG/DSCM	7% O2, or 85% weight reduction		Mercury Compounds
25.000 UG/DSCM	7% O2		Nickel Compounds
0.010 gr/DRY FT3	7% O2 dry basis		PM10
5.800 Lbs/Hr			PM10
29.000 PPMV	or 80% reduction, 7% O2 dry basis		SOX
68.450 Lbs/Hr	7% O2 and dry basis, per combustor and		SOX
0.010 gr/DRY FT3	7% O2		TSP
0.020 gr/DRY FT3	Lime Silo		TSP
5.800 Lbs/Hr	7% O2		TSP
37.600 Lbs/Hr	Aggregate of 6 combustors		VOC
102	ROTARY COMBUSTER 2		
Emission Limit			Pollutant
7.200 UG/DSCM	7% O2		Arsenic Coumpounds
0.200 UG/DSCM	7% O2		Beryllium Compounds
29.950 Lbs/Hr	7% O2 dry basis		CO
100.000 PPMV	7% O2 dry basis 24-hr block arithmetic average		CO
15.800 UG/DSCM	7% O2		Cadmium Compounds
2.300 UG/DSCM	7% O2		Chromium Compounds
30.000 UG/DSCM	7% O2		Furan
25.000 PPMV	7% O2 dry basis on a 24 hr daily arithmetic average or 95% weight reduction		Hydrogen Chloride (Anhydrous)
36.580 Lbs/Hr	7% O2 dry basis		Hydrogen Chloride (Anhydrous)
166.000 UG/DSCM	7% O2		Lead
50.000 UG/DSCM	7% O2, or 85% weight reduction		Mercury Compounds
25.000 UG/DSCM	7% O2		Nickel Compounds
0.010 gr/DRY FT3	7% O2 dry basis		PM10
5.800 Lbs/Hr			PM10
29.000 PPMV	or 80% reduction, 7% O2 dry basis		SOX
68.450 Lbs/Hr	7% O2 and dry basis, per combustor and		SOX
0.010 gr/DRY FT3	7% O2		TSP
0.020 gr/DRY FT3	Lime Silo		TSP

**SECTION F. Emission Restriction Summary.**

Source Id	Source Description		
	5.800 Lbs/Hr	7% O2	TSP
	37.600 Lbs/Hr	Aggregate of 6 combustors	VOC
103	ROTARY COMBUSTER 3		
Emission Limit			Pollutant
7.200 UG/DSCM	7% O2		Arsenic Coumpounds
0.200 UG/DSCM	7% O2		Beryllium Compounds
29.950 Lbs/Hr	7% O2 dry basis		CO
100.000 PPMV	7% O2 dry basis 24-hr block arithmetic average		CO
15.800 UG/DSCM	7% O2		Cadmium Compounds
2.300 UG/DSCM	7% O2		Chromium Compounds
30.000 UG/DSCM	7% O2		Furan
25.000 PPMV	7% O2 dry basis on a 24 hr daily arithmetic average or 95% weight reduction		Hydrogen Chloride (Anhydrous)
36.580 Lbs/Hr	7% O2 dry basis		Hydrogen Chloride (Anhydrous)
166.000 UG/DSCM	7% O2		Lead
50.000 UG/DSCM	7% O2, or 85% weight reduction		Mercury Compounds
25.000 UG/DSCM	7% O2		Nickel Compounds
0.010 gr/DRY FT3	7% O2 dry basis		PM10
5.800 Lbs/Hr			PM10
29.000 PPMV	or 80% reduction, 7% O2 dry basis		SOX
68.450 Lbs/Hr	7% O2 and dry basis, per combustor and		SOX
0.010 gr/DRY FT3	7% O2		TSP
0.020 gr/DRY FT3	Lime Silo		TSP
5.800 Lbs/Hr	7% O2		TSP
37.600 Lbs/Hr	Aggregate of 6 combustors		VOC
104	ROTARY COMBUSTER 4		
Emission Limit			Pollutant
7.200 UG/DSCM	7% O2		Arsenic Coumpounds
0.200 UG/DSCM	7% O2		Beryllium Compounds
29.950 Lbs/Hr	7% O2 dry basis		CO
100.000 PPMV	7% O2 dry basis 24-hr block arithmetic average		CO
15.800 UG/DSCM	7% O2		Cadmium Compounds
2.300 UG/DSCM	7% O2		Chromium Compounds
30.000 UG/DSCM	7% O2		Furan
25.000 PPMV	7% O2 dry basis on a 24 hr daily arithmetic average or 95% weight reduction		Hydrogen Chloride (Anhydrous)
36.580 Lbs/Hr	7% O2 dry basis		Hydrogen Chloride (Anhydrous)
166.000 UG/DSCM	7% O2		Lead
50.000 UG/DSCM	7% O2, or 85% weight reduction		Mercury Compounds
25.000 UG/DSCM	7% O2		Nickel Compounds
0.010 gr/DRY FT3	7% O2 dry basis		PM10

**SECTION F. Emission Restriction Summary.**

Source Id	Source Description		
	5.800 Lbs/Hr		PM10
	29.000 PPMV	or 80% reduction, 7% O2 dry basis	SOX
	68.450 Lbs/Hr	7% O2 and dry basis, per combustor and	SOX
	0.010 gr/DRY FT3	7% O2	TSP
	0.020 gr/DRY FT3	Lime Silo	TSP
	5.800 Lbs/Hr	7% O2	TSP
	37.600 Lbs/Hr	Aggregate of 6 combustors	VOC
105	ROTARY COMBUSTER 5		
	Emission Limit		Pollutant
	7.200 UG/DSCM	7% O2	Arsenic Coumpounds
	0.200 UG/DSCM	7% O2	Beryllium Compounds
	29.950 Lbs/Hr	7% O2 dry basis	CO
	100.000 PPMV	7% O2 dry basis 24-hr block arithmetic average	CO
	15.800 UG/DSCM	7% O2	Cadmium Compounds
	2.300 UG/DSCM	7% O2	Chromium Compounds
	30.000 UG/DSCM	7% O2	Furan
	25.000 PPMV	7% O2 dry basis on a 24 hr daily arithmetic average or 95% weight reduction	Hydrogen Chloride (Anhydrous)
	36.580 Lbs/Hr	7% O2 dry basis	Hydrogen Chloride (Anhydrous)
	166.000 UG/DSCM	7% O2	Lead
	50.000 UG/DSCM	7% O2, or 85% weight reduction	Mercury Compounds
	25.000 UG/DSCM	7% O2	Nickel Compounds
	0.010 gr/DRY FT3	7% O2 dry basis	PM10
	5.800 Lbs/Hr		PM10
	29.000 PPMV	or 80% reduction, 7% O2 dry basis	SOX
	68.450 Lbs/Hr	7% O2 and dry basis, per combustor and	SOX
	0.010 gr/DRY FT3	7% O2	TSP
	0.020 gr/DRY FT3	Lime Silo	TSP
	5.800 Lbs/Hr	7% O2	TSP
	37.600 Lbs/Hr	Aggregate of 6 combustors	VOC
106	ROTARY COMBUSTER 6		
	Emission Limit		Pollutant
	7.200 UG/DSCM	7% O2	Arsenic Coumpounds
	0.200 UG/DSCM	7% O2	Beryllium Compounds
	29.950 Lbs/Hr	7% O2 dry basis	CO
	100.000 PPMV	7% O2 dry basis 24-hr block arithmetic average	CO
	15.800 UG/DSCM	7% O2	Cadmium Compounds
	2.300 UG/DSCM	7% O2	Chromium Compounds
	30.000 UG/DSCM	7% O2	Furan
	25.000 PPMV	7% O2 dry basis on a 24 hr daily arithmetic average or 95% weight reduction	Hydrogen Chloride (Anhydrous)

**SECTION F. Emission Restriction Summary.**

Source Id	Source Description		
36.580	Lbs/Hr	7% O2 dry basis	Hydrogen Chloride (Anhydrous)
166.000	UG/DSCM	7% O2	Lead
50.000	UG/DSCM	7% O2, or 85% weight reduction	Mercury Compounds
25.000	UG/DSCM	7% O2	Nickel Compounds
0.010	gr/DRY FT3	7% O2 dry basis	PM10
5.800	Lbs/Hr		PM10
29.000	PPMV	or 80% reduction, 7% O2 dry basis	SOX
68.450	Lbs/Hr	7% O2 and dry basis, per combustor and	SOX
0.010	gr/DRY FT3	7% O2	TSP
0.020	gr/DRY FT3	Lime Silo	TSP
5.800	Lbs/Hr	7% O2	TSP
37.600	Lbs/Hr	Aggregate of 6 combustors	VOC
110	LIME STORAGE SILO		
Emission Limit		Pollutant	
0.020	gr/CF		PM10
113	EMERGENCY ENGINE		
Emission Limit		Pollutant	
2.600	GRAMS/HP-Hr		CO
3.000	GRAMS/HP-Hr		NOX
0.150	GRAMS/HP-Hr		PM10

Site Emission Restriction Summary

Emission Limit		Pollutant
50.000 Tons/Yr	12-month rolling sum	VOC

**SECTION G. Miscellaneous.**

The Department has determined that the emissions from the following activity, excluding those indicated as site level requirements, in Section C, of this permit, do not require additional limitations, monitoring, or recordkeeping:

4,000 gal. fuel oil storage tank
 3,000 gal. nitrogen tank
 5,200 gal. sodium hypochlorite tank
 4,200 gal sulfuric acid tank
 300 hp emergency diesel fire pump
 2,500 gal diesel tank

The following is a list of wastes approvable for burning at American Ref-Fuel, as noted in the Department's Waste Permit No. 400593:

FORM "R" Residual Wastes Requiring Chemical Analyses

Acidic Chemicals (pH<6) (RWC 301)
 Basic Chemicals (pH>8) (RWC 302)
 Combustible Chemicals (RWC 303)
 Chemical Salts (RWC 304)
 Carbon residues (decoloring, filtering) (RWC 305)
 Surface Coating (solid, semi-solid paints, polishes, adhesives, ink) (RWC 306)
 Filter Aids (only combustible filter aids) (RWC 307)
 Filter Media (RWC 308)
 Spent dyes (RWC 309)
 Detergents, cleaning agents (RWC 310)
 Off-spec products, intermediates (RWC 311)
 Wood wastes (treated wood) (RWC 403)
 Halogenated plastics (PVC, teflon, CPE) (RWC 409)
 Agricultural wastes (fertilizers, feed supplements) (RWC 411)
 Oil-contaminated waste (spent absorbent, oily rags) (RWC 503)
 Spent catalyst (RWC 505)
 Spill residues (RWC 506)
 On-site generated used oil
 Empty containers (processed by a Department approved procedure)

FORM "S" Residual Wastes with Chemical Analyses Waived

Leather scrap wastes
 Textile wastes (yarn, fabric, fiber, and elastic)
 Carbon filters and carbon residues *
 Cosmetic wastes ***
 Finished wood waste (painted, stained, non-treated)
 Markers and paint stick shavings *
 Pharmaceutical waste ***
 Photographic waste **
 Spent cleaning rags, excluding rags containing solvent *
 Glass reinforced plastics
 Carpet/fabric scrap waste
 Cured resin waste
 Foam type waste
 Food waste
 Fresh air intake filters
 Gasket waste (unused)
 Labels/packing waste
 Non-halogenated plastic waste (polyethylene, polystyrene, polyurathane)
 Rubber elastomer waste (including waste tires, whole and processed)
 Screen waste
 Shingle scrap waste

**SECTION G. Miscellaneous.**

Styrofoam waste *
Thermal insulation waste
Personal protective equipment (unused or uncontaminated)
Untreated wood, sawdust and shavings (must be from untreated wood)
Empty containers
Linoleum waste
Plant waste
Nylon material waste
Packing/shipping material waste
Paper, cardboard waste

* no more than 10% per truckload, unless a Form S for the generator is approved.

** no more than 5% per truckload, unless a Form S for the generator is approved.

*** Subject to specific Form S approval.

May 2006. APS: 570425, AUTH: 615122. The Department renewed the operating permit for this facility and has made a change in the name of the facility from American Ref-Fuel Company of Delaware Valley, L.P. to Covanta Delaware Valley, L.P. (the federal tax ID remained the same). The following changes have taken place since the permit was last amended on 8-22-2002:

- Source 112, two (2) cold cleaning machines have been added.
- Reference to the combustion efficiency interlock for the combustors has been removed from the permit due to an earlier installation of a CEM for CO.

The facility is not subject to CAM, because the controlled sources either have applicable federal regulations that were proposed after November 15, 1990, or the emissions are monitored by CEMS. Both of these exemptions are qualified by as defined in 40 CFR §63.2(b)(i).

November, 2006. APS: 570425, AUTH: 650636. Minor permit modification to combustors to clarify wording found in the BAT that the combustors are subject to.

December 3, 2010 - AUTH: 861896. OP Renewal.

March 2008. APS: 570425, AUTH: 782425. The Department amended this permit to address a discrepancy between the applicable state BAT policy and the federal regulation for dioxin/furan testing.

January 20, 2009, (APS: 570425; AUTH: 782425) TVOP amendment.

December 2, 2010, (APS: 570425; AUTH 861896) TVOP renewal.

March 30, 2015 (AUTH ID 1067453) TVOP amendment to incorporate Plan Approval No. 23-0004A.

Nov. 6, 2015 (AUTH ID: 1099034) TVOP renewal, and incorporate an emergency engine (Source ID EG01) (RFD No. 2567).



***** End of Report *****
