COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
AIR QUALITY PROGRAM

STATE ONLY NATURAL MINOR OPERATING PERMIT

Issue Date:	November 1, 2024	Effective Date:	April 8, 2025
Revision Date:	April 8, 2025	Expiration Date:	October 31, 2029
Revision Type:	Amendment		

In accordance with the provisions of the Air Pollution Control Act, the Act of January 8, 1960, P.L. 2119, as amended, and 25 Pa. Code Chapter 127, the Owner, [and Operator if noted] (hereinafter referred to as permittee) identified below is authorized by the Department of Environmental Protection (Department) to operate the air emission source(s) more fully described in this permit. This Facility is subject to all terms and conditions specified in this permit. Nothing in this permit relieves the permittee from its obligations to comply with all applicable Federal, State and Local laws and regulations.

The regulatory or statutory authority for each permit condition is set forth in brackets. All terms and conditions in this permit are federally enforceable unless otherwise designated.

State Only Permit No: 24-00131
Natural Minor
Federal Tax Id - Plant Code: 13-0796973-1

Owner Information

Name: SGL CARBON LLC
Mailing Address: 900 THERESIA ST
PO BOX 1030
SAINT MARYS, PA 15857-1832

Plant Information

Plant: SGL CARBON CORP/ST MARYS PLT
Location: 24 Elk County 24814 Saint Marys City
SIC Code: 3624 Manufacturing - Carbon And Graphite Products

Responsible Official

Name: THOMAS R DETSCH
Title: SITE MGR
Phone: (814) 781 - 2643 Email: tom.detsch@sglcarbon.com

Permit Contact Person

Name: RYAN FRITZ
Title: ENVIRONMENTAL ENGINEER
Phone: (814) 737 - 3010 Email: ryan.fritz@sglcarbon.com

[Signature] _____
LORI L. MCNABB, NORTHWEST REGION AIR PROGRAM MANAGER

SECTION A. Table of Contents

Section A. Facility/Source Identification

Table of Contents
Site Inventory List

Section B. General State Only Requirements

#001 Definitions.
#002 Operating Permit Duration.
#003 Permit Renewal.
#004 Operating Permit Fees under Subchapter I.
#005 Transfer of Operating Permits.
#006 Inspection and Entry.
#007 Compliance Requirements.
#008 Need to Halt or Reduce Activity Not a Defense.
#009 Duty to Provide Information.
#010 Revising an Operating Permit for Cause.
#011 Operating Permit Modifications
#012 Severability Clause.
#013 De Minimis Emission Increases.
#014 Operational Flexibility.
#015 Reactivation of Sources
#016 Health Risk-based Emission Standards and Operating Practice Requirements.
#017 Circumvention.
#018 Reporting Requirements.
#019 Sampling, Testing and Monitoring Procedures.
#020 Recordkeeping.
#021 Property Rights.
#022 Alternative Operating Scenarios.
#023 Reporting
#024 Report Format

Section C. Site Level State Only Requirements

C-I: Restrictions
C-II: Testing Requirements
C-III: Monitoring Requirements
C-IV: Recordkeeping Requirements
C-V: Reporting Requirements
C-VI: Work Practice Standards
C-VII: Additional Requirements
C-VIII: Compliance Certification
C-IX: Compliance Schedule

Section D. Source Level State Only Requirements

D-I: Restrictions
D-II: Testing Requirements
D-III: Monitoring Requirements
D-IV: Recordkeeping Requirements
D-V: Reporting Requirements
D-VI: Work Practice Standards
D-VII: Additional Requirements

Note: These same sub-sections are repeated for each source!

Section E. Source Group Restrictions

E-I: Restrictions

SECTION A. Table of Contents

E-II: Testing Requirements
E-III: Monitoring Requirements
E-IV: Recordkeeping Requirements
E-V: Reporting Requirements
E-VI: Work Practice Standards
E-VII: Additional Requirements

Section F. Alternative Operating Scenario(s)

F-I: Restrictions
F-II: Testing Requirements
F-III: Monitoring Requirements
F-IV: Recordkeeping Requirements
F-V: Reporting Requirements
F-VI: Work Practice Standards
F-VII: Additional Requirements

Section G. Emission Restriction Summary

Section H. Miscellaneous

SECTION A. Site Inventory List

Source ID	Source Name	Capacity/Throughput		Fuel/Material
001	MISC NATURAL GAS COMBUSTION SOURCES	2.710	MMBTU/HR	
		2.710	MCF/HR	Natural Gas
041	GAS FIRED BOILER 1	9.900	MMBTU/HR	
		9,900.000	CF/HR	Natural Gas
103	CHEMICAL VAPOR DEPOSITION REACTORS 1 AND 2	30,000.000	Lbs/HR	GRAPHITE/ORGANOSILAI
103B	CVD REACTORS 3 AND 4		N/A	GRAPHITE/ORGANOSILAI
110	MACHINING OPR (BLDG 600)	2.000	Tons/HR	CARBON
115	MAINTENANCE SHOP (BLDG 602)		N/A	CARBON
126	SPECIAL IMPREGNATION PROCESS	1.000	Tons/HR	CARBON
140	(2) SOLVENT DEGREASERS	0.150	Sq Ft/HR	PETROLEUM DISTILLATE
150	EMERGENCY POWER GENERATOR	99.000	CF/HR	Natural Gas
160	EMERGENCY POWER GENERATOR (600 OFFICE)	0.092	MMBTU/HR	
		294.000	CF/HR	Natural Gas
7000	PURIFICATION FURNACES (10)	5.000	Tons/HR	CARBON
7100	(12) GRAPHITE PURIFICATION FURNACES	350.000	Lbs/HR	CARBON
7101	V.O.G. FURNACE 1			
7102	CVD REACTOR 5 AND 5B		N/A	GRAPHITE/ORGANOSILAI
7103	CVD REACTOR 6 & 7		N/A	GRAPHITE/ORGANOSILAI
7104	CVD REACTOR 8		N/A	GRAPHITE/ORGANOSILAI
7107	CVD REACTORS 9 AND 10		N/A	GRAPHITE/ORGANOSILAI
7108	CVD REACTORS 11 AND 12		N/A	GRAPHITE/ORGANOSILAI
7109	CVD REACTORS 13 AND 14		N/A	GRAPHITE/ORGANOSILAI
7111	CVD REACTOR 16	44.100	Lbs/HR	MTS
7112	CVD REACTOR 17	20.000	Each/HR	
7113	V.O.G. FURNACE 2	413.000	Lbs/HR	
7114	CVD REACTORS 18 AND 19		N/A	MTS
7200	GRAPHITIZATION & PURIFYING FURNACES (5)	262.500	Lbs/HR	CARBON
7300	GRAPHITIZATION & PURIFYING FURNACES (6)			
7400	12 GRAPHITIZATION & PURIFYING FURNACES	6,000.000	Lbs/HR	
7500	6 GRAPHITIZATION & PURIFYING FURNACES	6,000.000	Lbs/HR	
C103A2	SCRUBBER (CVD REACTOR 1 & 2)			
C110A	MACHINING OPR/BGHSE 1			
C110B	MACHINING OPR/BGHSE 2			
C110C	MACHINING OPR/BGHSE 3			
C110D	MACHINING OPR/BGHSE 4			
C110E	MACHINING OPR/BGHSE 5A			
C110F	MACHINING OPR/BGHSE 6			
C110G	MACHINING OPR/BGHSE 7			
C110H	MACHINING OPR/BGHSE 5B			
C115	MAINTENANCE SHOP DUST COLLECTOR			

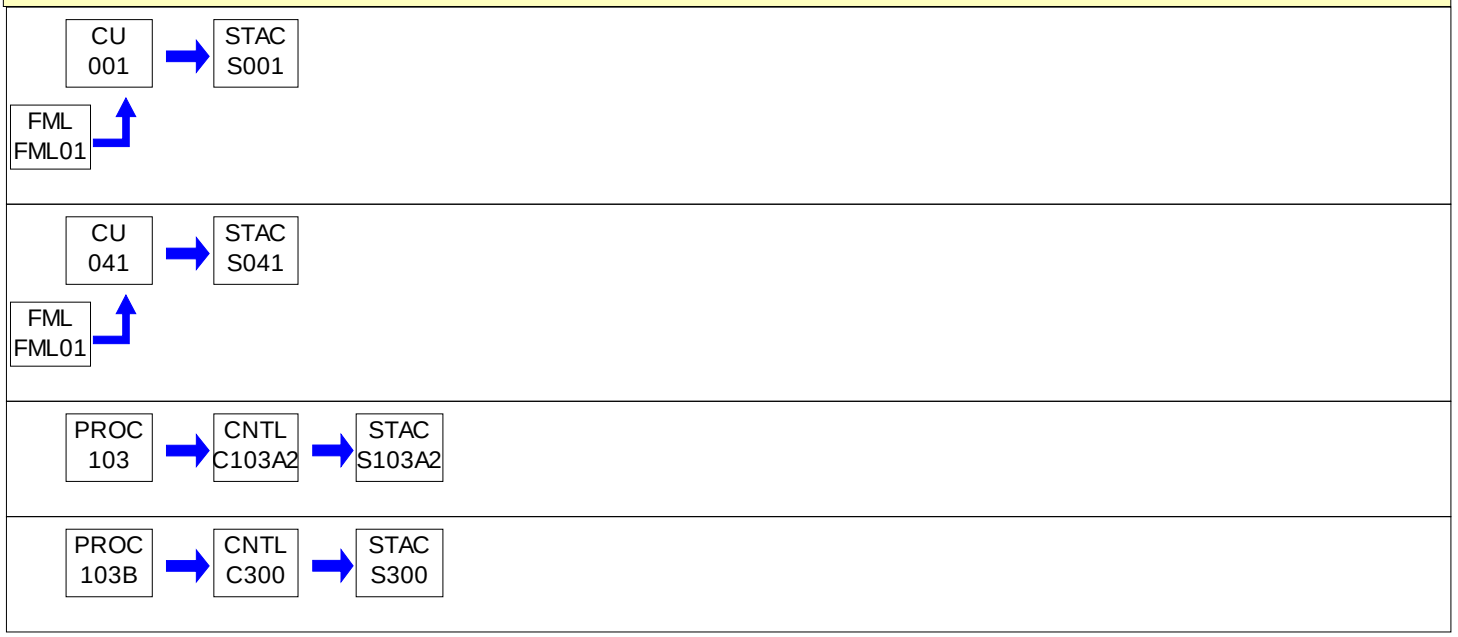
SECTION A. Site Inventory List

Source ID	Source Name	Capacity/Throughput	Fuel/Material
C300	CVD REACTORS 3&4 FUME AND PM SCRUBBER		
C7000	FUME & PM SCRUBBER		
C7100	FUME & PM SCRUBBER		
C7101	FURNACE SCRUBBER 1 ADVANCED AIR TECHNOLOGIES APOLLO-250P		
C7102	CVD REACTOR 5 AND 5B FUME & PM SCRUBBER		
C7103	CVD REACTOR 6 & 7 WET SCRUBBER		
C7104	CVD REACTOR 8 FUME & PM SCRUBBER		
C7107	CVD REACTORS 9 AND 10 FUME & PM SCRUBBER		
C7108	CVD REACTORS 11 AND 12 FUME & PM SCRUBBER		
C7109	CVD REACTORS 13 AND 14 FUME & PM SCRUBBER		
C7111	CVD REACTOR 16 SCRUBBER		
C7112	CVD REACTOR 17 SCRUBBER		
C7114	CVD REACTORS 18 AND 19 FUME & PM SCRUBBER		
C7200	FUME & PM SCRUBBER		
C7300	FUME & PM SCRUBBER		
C7400	FUME & PM SCRUBBER		
C7500	FUME & PM SCRUBBER		
FML01	NATURAL GAS PIPELINE		
S001	MISC COMB SOURCES STACK		
S041	BOILER 1 STACK		
S103A2	STACK, SCRUBBER (CVD REACTOR 1 & 2)		
S110	UNSPECIFIED NAME		
S110A	STACK - C110A		
S110B	STACK - C110B		
S110C	STACK - C110C		
S110D	STACK - C110D		
S110E	STACK - C110E		
S110F	STACK - C110F		
S110G	STACK - C110G		
S110H	STACK - C110H		
S115	MAINTENANCE SHOP DUST COLLECTOR STACK		
S126	SPECIAL IMPREGNATION PROS		
S150	STACK - EMERGENCY POWER GENERATOR		
S160	STACK - BLDG 600 EMERGENCY POWER GENERATOR		
S300	SCRUBBER STACK		
S7000	SCRUBBER STACK		
S7100	SCRUBBER STACK		
S7101	SCRUBBER STACK 1		
S7102	CVD REACTOR 5 AND 5B SCRUBBER STACK		
S7103	CVD REACTOR 6 & 7 SCRUBBER STACK		

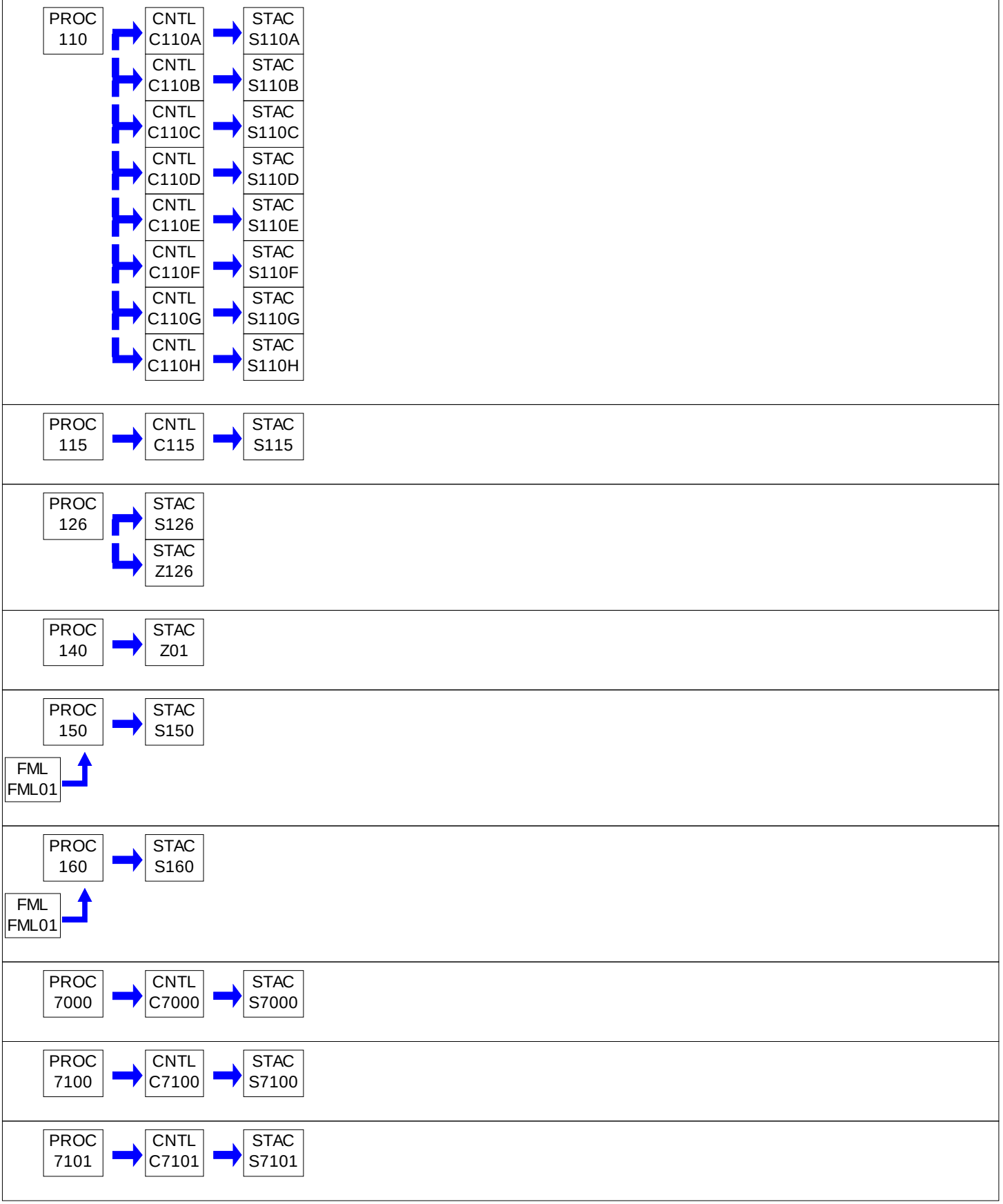
SECTION A. Site Inventory List

Source ID	Source Name	Capacity/Throughput	Fuel/Material
S7104	CVD REACTOR 8 SCRUBBER STACK		
S7107	CVD REACTOR 9 AND 10 SCRUBBER STACK		
S7108	CVD REACTOR 11 AND 12 SCRUBBER STACK		
S7109	CVD REACTOR 13 AND 14 SCRUBBER STACK		
S7111	CVD REACTORS 16 SCRUBBER STACK		
S7112	CVD REACTOR 17SCRUBBER STACK		
S7114	CVD REACTORS 18 & 19 SCRUBBER STACK		
S7200	GRAPHITIZATION & PURIFYING FURNACE SCRUBBER STACK		
S7300	SCRUBBER STACK		
S7400	SCRUBBER STACK		
S7500	SCRUBBER STACK		
Z01	FUGITIVE EMISSIONS		
Z126	IMPREG. FUGITIVES		

PERMIT MAPS



PERMIT MAPS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PROC 115
CNTL C115
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PROC 126
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PROC 140
STAC Z01
PROC 150
STAC S150
FML FML01
PROC 160
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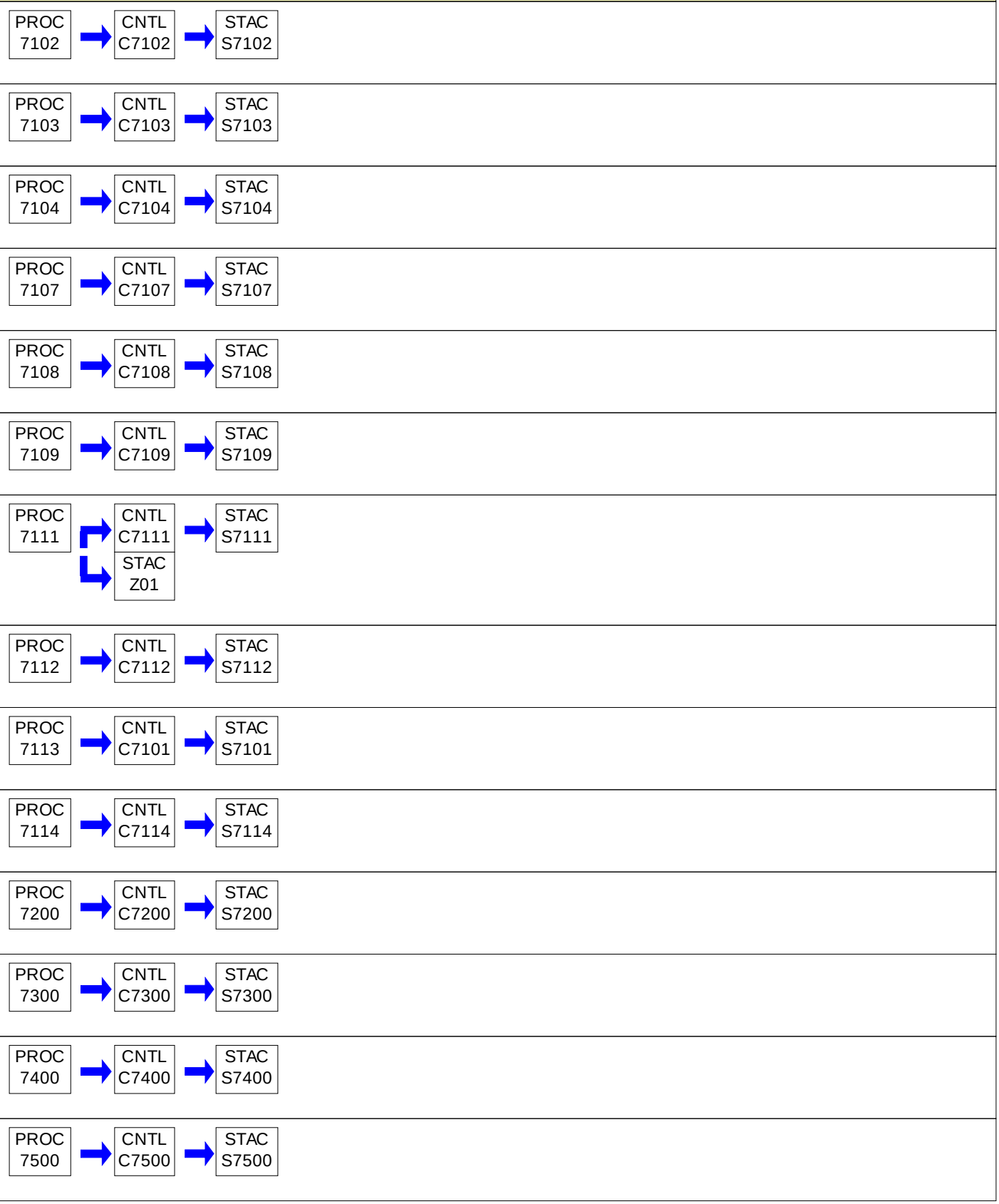
PERMIT MAPS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PROC 7109
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PROC 7111
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STAC S7111
STAC Z01
PROC 7112
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PROC 7113
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PROC 7300
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PROC 7400
CNTL C7400
STAC S7400
PROC 7500
CNTL C7500
STAC S7500

SECTION B. General State Only 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 in 25 Pa. Code § 121.1.

#002 [25 Pa. Code § 127.446]

Operating Permit Duration.

(a) 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.

(b) The terms and conditions of the expired permit shall automatically continue pending issuance of a new operating 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.

#003 [25 Pa. Code §§ 127.412, 127.413, 127.414, 127.446 & 127.703(b)]

Permit Renewal.

(a) The permittee shall submit a timely and complete application for renewal of the operating permit to the appropriate Regional Air Program Manager. The application for renewal of the operating permit shall be submitted at least six (6) months and not more than 18 months before the expiration date of this permit.

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

(c) The permittee shall submit with the renewal application a fee for the processing of the application as specified in 25 Pa. Code § 127.703(b). The fees shall be made payable to "The Commonwealth of Pennsylvania Clean Air Fund" and submitted with the fee form to the respective regional office.

(d) 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.

(e) The application for renewal of the operating permit shall also include submission of supplemental compliance review forms in accordance with the requirements of 25 Pa. Code § 127.412(b) and § 127.412(j).

(f) 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 as necessary to address any requirements that become applicable to the source after the permittee submits a complete application, but prior to the date the Department takes action on the permit application.

#004 [25 Pa. Code § 127.703]

Operating Permit Fees under Subchapter I.

(a) The permittee shall pay the annual operating permit maintenance fee according to the following fee schedule in either paragraph (1) or (2) in accordance with 25 Pa. Code § 127.703(d) on or before December 31 of each year for the next calendar year.

(1) For a synthetic minor facility, a fee equal to:

(i) Four thousand dollars ($4,000) for calendar years 2021—2025.

(ii) Five thousand dollars ($5,000) for calendar years 2026—2030.

(iii) Six thousand three hundred dollars ($6,300) for the calendar years beginning with 2031.

SECTION B. General State Only Requirements

(2) For a facility that is not a synthetic minor, a fee equal to:

(i) Two thousand dollars ($2,000) for calendar years 2021—2025.

(ii) Two thousand five hundred dollars ($2,500) for calendar years 2026—2030.

(iii) Three thousand one hundred dollars ($3,100) for the calendar years beginning with 2031.

(b) The applicable fees shall be made payable to "The Commonwealth of Pennsylvania Clean Air Fund" with the permit number clearly indicated and submitted to the respective regional office.

#005 [25 Pa. Code §§ 127.450 (a)(4) and 127.464]

Transfer of Operating Permits.

(a) This operating permit may not be transferred to another person, except in cases of transfer-of-ownership that are documented and approved by the Department.

(b) In accordance with 25 Pa. Code § 127.450(a)(4), a change in ownership of the source shall be treated as an administrative amendment if the Department determines that no other change in the permit is required and 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 a compliance review form has been submitted to, and the permit transfer has been approved by, the Department.

(c) This operating permit is valid only for those specific sources and the specific source locations described in this permit.

#006 [25 Pa. Code § 127.441 and 35 P.S. § 4008]

Inspection and Entry.

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

(1) Enter at reasonable times upon the permittee's premises where a 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, at reasonable times, any records that are kept under the conditions of this permit;

(3) Inspect at reasonable times, any 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, any 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 or regulations adopted thereunder including denying the Department access to a source at this facility. Refusal of entry or access may constitute grounds for permit revocation and assessment of criminal and/or civil penalties.

(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 §§ 127.441 & 127.444]

Compliance Requirements.

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

SECTION B. General State Only Requirements

(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 for the source is 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 State-Only permit. Nothing in this sub-condition shall be construed to create an independent affirmative duty upon the permittee to obtain a predetermination from the Department for physical configuration or engineering design detail changes made by the permittee.

#008 [25 Pa. Code § 127.441]

Need to Halt or Reduce Activity Not a Defense.

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

#009 [25 Pa. Code §§ 127.442(a) & 127.461]

Duty to Provide Information.

(a) The permittee shall submit reports to the Department containing information the Department may prescribe relative to the operation and maintenance of each source at the facility.

(b) The permittee shall furnish to the Department, in writing, information that the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Department copies of records that the permittee is required to maintain in accordance with this permit.

#010 [25 Pa. Code § 127.461]

Revising an Operating Permit for Cause.

This operating permit may be terminated, modified, suspended or revoked and reissued if one or more of the following applies:

(1) The permittee constructs or operates the source subject to the operating permit so that it is in violation of the Air Pollution Control Act, the Clean Air Act, the regulations thereunder, a plan approval, a permit or in a manner that causes air pollution.

(2) The permittee fails to properly or adequately maintain or repair an air pollution control device or equipment attached to or otherwise made a part of the source.

(3) The permittee has failed to submit a report required by the operating permit or an applicable regulation.

(4) The EPA determines that the permit is not in compliance with the Clean Air Act or the regulations thereunder.

#011 [25 Pa. Code §§ 127.450, 127.462, 127.465 & 127.703]

Operating Permit Modifications

(a) The permittee is authorized to make administrative amendments, minor operating permit modifications and significant operating permit modifications, under this permit, as outlined below:

SECTION B. General State Only Requirements

(b) Administrative Amendments. The permittee shall submit the application for administrative operating permit amendments (as defined in 25 Pa. Code § 127.450(a)), according to procedures specified in § 127.450 unless precluded by the Clean Air Act or its regulations.

(c) Minor Operating Permit Modifications. The permittee shall submit the application for minor operating permit modifications (as defined 25 Pa. Code § 121.1) in accordance with 25 Pa. Code § 127.462.

(d) Significant Operating Permit Modifications. The permittee shall submit the application for significant operating permit modifications in accordance with 25 Pa. Code § 127.465.

(e) The applicable fees shall be made payable to "The Commonwealth of Pennsylvania Clean Air Fund" with the permit number clearly indicated and submitted to the respective regional office.

#012 [25 Pa. Code § 127.441]

Severability Clause.

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

#013 [25 Pa. Code § 127.449]

De Minimis Emission Increases.

(a) This permit authorizes de minimis emission increases in accordance with 25 Pa. Code § 127.449 so long as the permittee provides the Department with seven (7) days prior written notice before commencing any de minimis emissions increase. 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.

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

(c) Except as provided below in (d), the permittee is authorized 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 NOx from a single source during the term of the permit and 5 tons of NOx 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, the regulations thereunder 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, the regulations thereunder or 25 Pa. Code Article III.

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

(d) In accordance with § 127.14, the permittee is authorized to install the following minor sources without the need for a plan approval or permit modification:

SECTION B. General State Only Requirements

(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 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.

(e) 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 (c)(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.

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

(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, installation of minor sources made pursuant to this permit condition and Plan Approval Exemptions under 25 Pa. Code § 127.14 (relating to exemptions), the permittee is prohibited from making 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.

#014 [25 Pa. Code § 127.3]

Operational Flexibility.

The permittee is authorized to make changes within the facility in accordance with the regulatory provisions outlined in 25 Pa. Code § 127.3 (relating to operational flexibility) to implement the operational flexibility requirements provisions authorized under Section 6.1(i) of the Air Pollution Control Act and the operational flexibility terms and conditions of this permit. The provisions in 25 Pa. Code Chapter 127 which implement the operational flexibility requirements include the following:

(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)

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

SECTION B. General State Only Requirements

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

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

#015 [25 Pa. Code § 127.11a]

Reactivation of Sources

(a) The permittee may not reactivate a source that has been out of operation or production for at least one year unless the reactivation is conducted in accordance with a plan approval granted by the Department or in accordance with reactivation and maintenance plans developed and approved by the Department in accordance with 25 Pa. Code § 127.11a(a).

(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).

#016 [25 Pa. Code § 127.36]

Health Risk-based Emission Standards and Operating Practice Requirements.

(a) When needed to protect public health, welfare and the environment from emissions of hazardous air pollutants from new and existing sources, the permittee shall comply with the health risk-based emission standards or operating practice requirements imposed by the Department, except as precluded by §§ 6.6(d)(2) and (3) of the Air Pollution Control Act [35 P.S. § 4006.6(d)(2) and (3)].

(b) A person challenging a performance or emission standard established by the Department has the burden to demonstrate that performance or emission standard does not meet the requirements of Section 112 of the Clean Air Act.

#017 [25 Pa. Code § 121.9]

Circumvention.

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 25 Pa. Code Article III, except that with prior approval of the Department, the device or technique may be used for control of malodors.

#018 [25 Pa. Code §§ 127.402(d) & 127.442]

Reporting Requirements.

(a) The permittee shall comply with the applicable reporting requirements of the Clean Air Act, the regulations thereunder, the Air Pollution Control Act and 25 Pa. Code Article III including Chapters 127, 135 and 139.

(b) The permittee shall submit reports to the Department containing information the Department may prescribe relative to the operation and maintenance of any air contamination source.

(c) 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 in the permit transmittal letter, or otherwise
notified)

(d) Any records or information including applications, forms, or reports submitted pursuant to this permit condition shall contain a certification by a responsible official as to truth, accuracy and completeness. The certifications submitted under this permit shall require a responsible official of the facility to certify that based on information and belief formed after reasonable inquiry, the statements and information in the documents are true, accurate and complete.

(e) Any records, reports or information submitted to the Department shall be available to the public except for such

SECTION B. General State Only Requirements

records, reports or information which meet the confidentiality requirements of § 4013.2 of the Air Pollution Control Act and §§ 112(d) and 114(c) of the Clean Air Act. The permittee may not request a claim of confidentiality for any emissions data generated for the facility.

#019 [25 Pa. Code §§ 127.441(c) & 135.5]

Sampling, Testing and Monitoring Procedures.

(a) The permittee shall comply with the monitoring, recordkeeping or reporting requirements of 25 Pa. Code Chapter 139 and the other applicable requirements of 25 Pa. Code Article III and additional requirements related to monitoring, reporting and recordkeeping required by the Clean Air Act and the regulations thereunder including the Compliance Assurance Monitoring requirements of 40 CFR Part 64, where applicable.

(b) Unless alternative methodology is required by the Clean Air Act and regulations adopted thereunder, sampling, testing and monitoring required by or used by the permittee to demonstrate compliance with any applicable regulation or permit condition shall be conducted in accordance with the requirements of 25 Pa. Code Chapter 139.

#020 [25 Pa. Code §§ 127.441(c) and 135.5]

Recordkeeping.

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

(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 any 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.

#021 [25 Pa. Code § 127.441(a)]

Property Rights.

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

#022 [25 Pa. Code § 127.447]

Alternative Operating Scenarios.

The permittee is authorized to make changes at the facility to implement alternative operating scenarios identified in this permit in accordance with 25 Pa. Code § 127.447.

SECTION B. General State Only Requirements

#023 [25 Pa. Code §135.3]

Reporting

(a) If the facility is a Synthetic Minor Facility, the permittee shall submit by March 1 of each year an annual emissions report for the preceding calendar year. The report shall include information for all active 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. All air emissions from the facility should be estimated and reported.

(b) A source owner or operator of a Synthetic Minor Facility may request an extension of time from the Department for the filing of an annual emissions report, and the Department may grant the extension for reasonable cause.

#024 [25 Pa. Code §135.4]

Report Format

If applicable, the emissions reports shall contain sufficient information to enable the Department to complete its emission inventory. Emissions reports shall be made by the source owner or operator in a format specified by the Department.

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 act.

 # 002 [25 Pa. Code §123.1]

Prohibition of certain fugitive emissions

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

(1) Construction or demolition of buildings or structures.

(2) Grading, paving and maintenance of roads and streets.

(3) 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.

(4) Clearing of land.

(5) Stockpiling of materials.

(6) Open burning operations.

(7) - (8) [Do not apply]

(9) Sources and classes of sources other than those identified in paragraphs (1)—(8), for which the operator has obtained a determination from the Department that fugitive emissions from the source, after appropriate control, meet the following requirements:

(i) The emissions are of minor significance with respect to causing air pollution.

(ii) The emissions are not preventing or interfering with the attainment or maintenance of an ambient air quality standard.

(b) An application form for requesting a determination under either subsection (a)(9) or § 129.15(c) is available from the Department. In reviewing these applications, the Department may require the applicant to supply information including, but not limited to, a description of proposed control measures, charac-teristics of emissions, quantity of emissions and ambient air quality data and analysis showing the impact of the source on ambient air quality. The applicant is required to demonstrate that the requirements of subsections (a)(9) and (c) and § 123.2 [Condition #003, below] (relating to fugitive particulate matter) or of the requirements of § 129.15(c) have been satisfied. Upon such demonstration, the Department will issue a determination, in writing, either as an operating permit condition, for those sources subject to permit requirements under the act, or as an order containing appropriate conditions and limitations.

(c) [Refer to Work Practice Requirements in this section of permit.]

(d) [Does not apply]

 # 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 § 123.1(a)(1)—(9) [Condition #002, above] (relating to prohibition of certain fugitive emissions) if the emissions are visible at the point the emissions pass outside the person's property.

 # 004 [25 Pa. Code §123.31]

Limitations

(a) [Refer to Work Practice Requirements in this section of permit.]

SECTION C. Site Level Requirements

(b) 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.

(c) [Does not apply]

 # 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 3 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 § 123.41 [Condition #005, above] (relating to limitations) shall not apply to a visible emission in any of the following instances:

(1) When the presence of uncombined water is the only reason for failure of the emission to meet the limitations.

(2) When the emission results from the operation of equipment used solely to train and test persons in observing the opacity of visible emissions.

(3) When the emission results from sources specified in § 123.1 (a)(1)—(9) [Condition #002, above] (relating to prohibition of certain fugitive emissions).

(4) [Does not apply]

II. TESTING REQUIREMENTS.

 # 007 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131U]

If, at any time, the Department has reason to believe that the air contaminant emissions from the source are, or may be, in excess of any applicable air contaminant emission limitation or Action Level, the owner or operator shall conduct stack tests as are deemed necessary by the Department to determine the actual air contaminant emission rate. The owner or operator shall perform any such testing in accordance with the applicable provisions of 25 Pa. Code, Chapter 139 (relating to sampling and testing) as well as in accordance with any additional requirements or conditions established by the Department at the time the owner or operator is notified, in writing, of the need to conduct testing.

III. MONITORING REQUIREMENTS.

 # 008 [25 Pa. Code §123.43]

Measuring techniques

Visible emissions may be measured using either of the following:

(1) A device approved by the Department and maintained to provide accurate opacity measurements.

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

SECTION C. Site Level Requirements

 # 009 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Security personnel shall monitor the area of the facility on a daily basis to detect the presence of odors, fugitive emissions, or visible emissions. If any odors, fugitive emissions, or visible emissions are detected, facility management will be notified and corrective actions will be taken. A log of these monitoring activities will be maintained by security personnel and will contain an entry of any problems that are detected. This log shall be made available to the Department upon request.

IV. RECORDKEEPING REQUIREMENTS.

 # 010 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131V]

All logs and required records shall be maintained on site for a minimum of five years and shall be made available to the Department upon request.

V. REPORTING REQUIREMENTS.

 # 011 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approvals 24-131S, 24-131T, 24-131U, and 24-131V]

a) The owner or operator shall notify the Department by telephone within twenty-four (24) hours of the discovery of any malfunction which results in, or may possibly be resulting in, the emission of air contaminants in excess of any applicable limitation specified herein. Following the telephone notification, a written notice must also be submitted to DEP as specified below.

1) If the owner or operator is unable to provide notification by telephone to the appropriate Regional Office within twenty-four (24) hours of discovery of a malfunction due to a weekend or holiday, the notification shall be made to the Department by no later than 4 p.m. on the first business day for the Department following the weekend or holiday.

2) Any malfunction that poses an imminent danger to the public health, safety, welfare, or environment shall be reported by telephone to the Department and the County Emergency Management Agency immediately after the discovery of an incident. The owner or operator shall submit a written report of instances of such malfunctions to the Department within three (3) business days of the telephone report.

3) Unless otherwise required by this plan approval, any other malfunctions shall be reported to the Department, in writing, within five (5) business days of malfunction discovery.

VI. WORK PRACTICE REQUIREMENTS.

 # 012 [25 Pa. Code §123.1]

Prohibition of certain fugitive emissions

[From 25 Pa. Code § 123.1(c):]

(c) A person responsible for any source specified in subsections (a)(1)—(7) or (9) [Condition #002, above] shall take all reasonable actions to prevent particulate matter from becoming airborne. These actions include, but not be limited to, the following:

(1) Use, where possible, of water or chemicals for control of dust in the demolition of buildings or structures, construction operations, the grading of roads or the clearing of land.

(2) Application of asphalt, oil, water or suitable chemicals on dirt roads, material stockpiles and other surfaces which may give rise to airborne dusts.

SECTION C. Site Level Requirements

(3) Paving and maintenance of roadways.

(4) 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 other means.

 # 013 [25 Pa. Code §123.31]

Limitations

[From 25 Pa. Code § 123.31(a):]

(a) Limitations are as follows:

(1) If control of malodorous air contaminants is required under subsection (b) [Condition #004, above], emissions shall be incinerated at a minimum of 1200°F for at least 0.3 second prior to their emission into the outdoor atmosphere.

(2) Techniques other than incineration may be used to control malodorous air contaminants if such techniques are equivalent to or better than the required incineration in terms of control of the odor emissions and are approved in writing by the Department.

VII. ADDITIONAL REQUIREMENTS.

 # 014 [25 Pa. Code §129.14]

Open burning operations

(a) [Does not apply]

(b) Outside of air basins. No person may permit the open burning of material in an area outside of air basins in a manner that:

(1) The emissions are visible, at any time, at the point such emissions pass outside the property of the person on whose land the open burning is being conducted.

(2) Malodorous air contaminants from the open burning are detectable outside the property of the person on whose land the open burning is being conducted.

(3) The emissions interfere with the reasonable enjoyment of life or property.

(4) The emissions cause damage to vegetation or property.

(5) The emissions are or may be deleterious to human or animal health.

(c) Exceptions. The requirements of subsections (a) and (b) do not apply where the open burning operations result from:

(1) 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.

(2) Any fire set for the purpose of instructing personnel in fire fighting, when approved by the Department.

(3) A fire set for the prevention and control of disease or pests, when approved by the Department.

(4) - (5) [Do not apply]

(6) A fire set solely for recreational or ceremonial purposes.

(7) A fire set solely for cooking food.

(d) Clearing and grubbing wastes. The following is applicable to clearing and grubbing wastes:

(1) As used in this subsection the following terms shall have the following meanings:

SECTION C. Site Level Requirements

Air curtain destructor—A mechanical device which forcefully projects a curtain of air across a pit in which open burning is being conducted so that combustion efficiency is increased and smoke and other particulate matter are contained.

Clearing and grubbing wastes—Trees, shrubs and other native vegetation which are cleared from land during or prior to the process of construction. The term does not include demolition wastes and dirt laden roots.

(2) [Does not apply]

(3) Subsection (b) notwithstanding clearing and grubbing wastes may be burned outside of an air basin, subject to the following limitations:

(i) Upon receipt of a complaint or determination by the Department that an air pollution problem exists, the Department may order that the open burning cease or comply with subsection (b).

(ii) Authorization for open burning under this paragraph does not apply to clearing and grubbing wastes transported from an air basin for disposal outside of an air basin.

(4) During an air pollution episode, open burning is limited by Chapter 137 (relating to air pollution episodes) and shall cease as specified in that chapter.

[This permit does not constitute authorization to burn solid waste pursuant to Section 610(3) of the Solid Waste Management Act, 35 P.S. Section 6018.610(3), or any other provision of the Solid Waste Management Act.]

VIII. COMPLIANCE CERTIFICATION.

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

IX. COMPLIANCE SCHEDULE.

#015 01-NOV-24

1) The permittee shall submit a test protocol to the Department for review and approval within 60 calendar days of the issuance of the permit in accordance with Section E, 6 SOURCE TESTING, for sources 103, 7111, 7112, and 7113.

2) Testing shall be conducted within 30 calendar days of receiving the Department protocol approval, or an alternative date as approved by the Department.

3) At least 15 calendar days prior to commencing an emission testing program, notification as to the date and time of testing shall be given in accordance with Section E, 6 SOURCE TESTING, for sources 103, 7111, 7112, and 7113.

4) A complete test report shall be submitted in accordance with Section E, 6 SOURCE TESTING to the Department no later than 60 calendar days after completion of the onsite testing portion of an emission test program, for sources 103, 7111, 7112, and 7113.

SECTION D. Source Level Requirements

Source ID: 001 Source Name: MISC NATURAL GAS COMBUSTION SOURCES

Source Capacity/Throughput: 2.710 MMBTU/HR
2.710 MCF/HR Natural Gas

I. RESTRICTIONS.

Emission Restriction(s).

 # 001 [25 Pa. Code §123.13]
Processes

No person may permit the emission into the outdoor atmosphere of particulate matter from this source in a manner that the concentration of particulate matter in the effluent gas exceeds 0.04 grain per dry standard cubic foot.

 # 002 [25 Pa. Code §123.21]
General

No person may permit the emission into the outdoor atmosphere of sulfur oxides from a source in a manner that the concentration of the sulfur oxides, expressed as SO2, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

Fuel Restriction(s).

 # 003 [25 Pa. Code §127.441]
Operating permit terms and conditions.

Only natural gas shall be used as a fuel for this source.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

SECTION D. Source Level Requirements

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

SECTION D. Source Level Requirements

Source ID: 041 Source Name: GAS FIRED BOILER 1

Source Capacity/Throughput: 9.900 MMBTU/HR
9,900.000 CF/HR Natural Gas

I. RESTRICTIONS.

Emission Restriction(s).

 # 001 [25 Pa. Code §123.11]

Combustion units

A person may not permit the emission into the outdoor atmosphere of particulate matter from this combustion unit at a rate in excess of 0.4 pound per million Btu of heat input.

 # 002 [25 Pa. Code §123.22]

Combustion units

No person may permit the emission into the outdoor atmosphere of sulfur oxides, expressed as SO2, from this combustion unit in excess of the rate of 4 pounds per million Btu of heat input over any 1-hour period.

Fuel Restriction(s).

 # 003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

In order to demonstrate compliance with the SOx emission limits, this source shall use only natural gas as a fuel source.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

SECTION D. Source Level Requirements

VI. WORK PRACTICE REQUIREMENTS.

 # 004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

In order to assure compliance with the emission limitations for this source, the permittee shall maintain and operate this source in accordance with the manufacturer's specifications and in a manner consistent with good air pollution control practices.

VII. ADDITIONAL REQUIREMENTS.

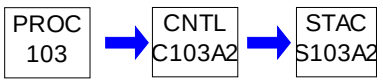
No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

SECTION D. Source Level Requirements

Source ID: 103 Source Name: CHEMICAL VAPOR DEPOSITION REACTORS 1 AND 2

Source Capacity/Throughput: 30,000.000 Lbs/HR GRAPHITE/ORGANOSILANE

Conditions for this source occur in the following groups: 6 SOURCE TESTING



I. RESTRICTIONS.

Emission Restriction(s).

 # 001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131S]

a) Total particulate matter emissions from the source, as measured from the scrubber stack, shall not exceed 0.04 grains/dscf.

b) HCl emissions from the source, as measured from the scrubber stack, shall not exceed 0.006 lbs/hour, averaged over the reaction period (Deposition Cycle).

II. TESTING REQUIREMENTS.

 # 002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

(a) Twelve (12) to eighteen (18) months prior to the expiration of the facility's current operating permit (reoccurring), a stack test shall be performed in accordance with the provisions of Chapter 139 of the Rules and Regulations of the Department of Environmental Protection. The stack test shall be performed while the aforementioned source is operating at its maximum achievable production rate. The stack test shall determine the source's HCl emission rate.

(b) Source test submission requirements are defined in Section E - Group Source Testing Requirement.

(c) Initial testing was conducted July 17 - July 19, 2018 , for Plan Approval 24-131S.

III. MONITORING REQUIREMENTS.

 # 003 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131S]

(a) The permittee shall maintain the following:
1. Manometer or similar device to measure the pressure across the control device.
2. Makeup water flow gauge to measure makeup water flow to scrubber.
3. pH meter to measure pH of the scrubber liquid solution.

(b) The permittee shall maintain and operate the following alarm systems:
I. Low flow alarm
II. Low pH alarm

(c) The monitoring equipment shall be mounted in an accessible area and maintained in good operating conditions at all times.

SECTION D. Source Level Requirements

IV. RECORDKEEPING REQUIREMENTS.

 # 004 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131S]

(a) All inspection observations and maintenance performed on the control device shall be recorded in a log. This record shall, at a minimum, include:

(1) Time and date of observation
(2) Name, title, and initials of the observer
(3) A detailed description of the observation made
(4) Any corrective action taken as result of the observation

(b) The permittee shall maintain a record of the following from the operational inspections:

I. Low flow alarm check
II. Low pH alarm check

(c) The permittee shall record the following operational data from the control device (these records may be done with strip charts recorders, data acquisition systems, or manual log entries):

I. Pressure drop across the control device - at least once during each product run.
II. pH of scrubber liquid solution - at least once during each product run.
III. Scrubber makeup liquid flow rate - at least once during each product run.

(d) The permittee shall record all excursions and corrective actions taken in response to an excursion. This record shall, at a minimum, include:

(1) The time and date of the excursion observation
(2) The time elapsed until the corrective actions have been taken
(3) Name, title, and initials of the observer
(4) A detailed description of the observation made
(5) The corrective action taken as result of the observation

(e) The permittee shall maintain records of all monitoring downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable). The permittee shall also record the dates, times and durations, probable causes and corrective actions taken for the incidents.

(f) The permittee shall record all inspections, repairs, and maintenance performed on the monitoring equipment.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

 # 005 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131S]

(a) A copy of the control device manufacturer's operational and maintenance literature shall be maintained on site and shall be readily available.

(b) The permittee shall perform a daily operational inspection of the source and control device.

SECTION D. Source Level Requirements

(c) The permittee shall operate the control device at all times that the source is in operation.

(d) [Condition removed based on NSR Initial Operating Inspection Report recommendation on page 10 of the report].

(e) The permittee shall maintain and operate the source and control device in accordance with the manufacturer's specifications and in accordance with good air pollution control practices.

(f) The permittee shall adhere to the approved indicator range for the control device so that operation within the range shall provide reasonable assurance of compliance. A departure from the specified indicator range over a specified averaging period shall be defined as an excursion. The approved indicator ranges for the parameters are, as follows or as determined during the initial performance test or any subsequently approved performance tests unless otherwise stated:

(1) Scrubber pressure drop - 0.005 to 0.40 inches of water.
(2) Scrubber liquid pH greater than 8.0 or the pH level measured during the most recent stack test, whichever is greater.
(3) Scrubber inlet water (makeup water) flow rate greater than or equal to 20 gallons/hour.

(g) The permittee, with prior Departmental approval, may conduct additional performance tests to determine a new control device operating ranges.

(h) Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

VII. ADDITIONAL REQUIREMENTS.

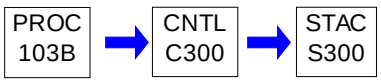
No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

SECTION D. Source Level Requirements

Source ID: 103B Source Name: CVD REACTORS 3 AND 4

Source Capacity/Throughput: N/A GRAPHITE/ORGANOSILANE

Conditions for this source occur in the following groups: 2 SCRUBBER REQ PA 24-131Q
4 REACTOR SOURCES PA 24-131Q



I. RESTRICTIONS.

Operation Hours Restriction(s).

 # 001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Plan Approval 24-131Q]

a) The permittee shall limit the hours of operation for source 103B (Reactors 3 and 4), to less than 5,840 hours per year based on a 12-month consecutive period.

(b) The permittee shall limit the operation of both reactors sharing a control device, to one reactor being operational at a time.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

SECTION D. Source Level Requirements

VII. ADDITIONAL REQUIREMENTS.

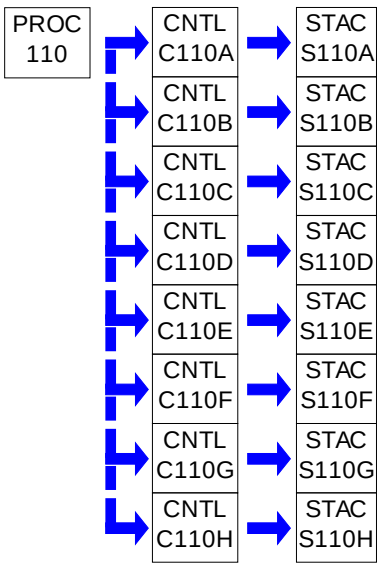
No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

SECTION D. Source Level Requirements

Source ID: 110 Source Name: MACHINING OPR (BLDG 600)

Source Capacity/Throughput: 2.000 Tons/HR CARBON

Conditions for this source occur in the following groups: 5 PM FILTERS



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

 # 001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

a) The permittee shall maintain magnehelic gauges (or equivalent) on all collectors associated with this source. The

SECTION D. Source Level Requirements

gauges shall be located in an easily accessible location, and shall be maintained in good working order at all times.

[This streamlined condition (part (a)) assures compliance with Condition #7, from Plan Approval Number: 24-131C; Condition #7, from Plan Approval Number 24-131D; and the pressure drop monitoring equipment required by the work practice standards contained in the initial Title V Operating Permit.]

[From Plan Approval Number: 24-131C, Condition #8 and Plan Approval Number 24-131D, Conditions #8 and #9.]
b) The permittee shall monitor and record the pressure drop readings across all Collectors associated with this source, on a daily basis, when the sources are in operation. The readings shall be recorded in a log, shall be maintained onsite for a minimum of five years, and shall be made available to the Department upon request. The daily pressure drop reading requirement shall be relaxed to a minimum of weekly readings when leak detection systems are installed on the respective collectors.

[From Plan Approval 24-131I]
c) The facility shall maintain 10% of each style of cartridge/bag that is required of the largest collector using that style cartridge/bag for all nine collectors under this source.

VII. ADDITIONAL REQUIREMENTS.

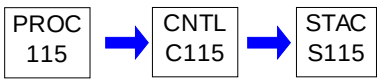
No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

SECTION D. Source Level Requirements

Source ID: 115 Source Name: MAINTENANCE SHOP (BLDG 602)

Source Capacity/Throughput: N/A CARBON

Conditions for this source occur in the following groups: 5 PM FILTERS



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

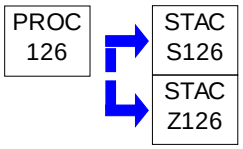
VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

SECTION D. Source Level Requirements

Source ID: 126 Source Name: SPECIAL IMPREGNATION PROCESS

Source Capacity/Throughput: 1.000 Tons/HR CARBON



I. RESTRICTIONS.

Emission Restriction(s).

 # 001 [25 Pa. Code §123.13]

Processes

No person may permit the emission into the outdoor atmosphere of particulate matter from this process in a manner that the concentration of particulate matter in the effluent gas exceeds 0.04 grain per dry standard cubic foot.

 # 002 [25 Pa. Code §129.91]

Control of major sources of NOx and VOCs

VOC emissions from this source shall not exceed 25.0 tons in any consecutive twelve (12) month period.

[From RACT Permit Number OP 24-131, Revision 1, Condition #3, issued on November 20, 2009.]

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

 # 003 [25 Pa. Code §129.95]

Recordkeeping

The company shall maintain records in accordance with the minimum recordkeeping requirements of 25 PA Code 129.95. At a minimum, this shall include:

a) VOC containing material usage as well as parts processed through RACT sources.

b) Records shall provide sufficient data and calculations to clearly demonstrate that the RACT conditions are met.

c) Data or information required to demonstrate compliance with the RACT conditions shall be recorded and maintained in a time frame consistent with the averaging period of the requirement(s).

d) records shall be retained for at least five (5) years and be made available to the Department upon request.

[From RACT Permit Number OP 24-131, Revision 1, Condition #5, issued on November 20, 2009.]

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 (State Only General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

 # 004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

In order to assure compliance with the particulate matter concentration limits for this source, the permittee shall maintain and operate the source in accordance with the manufacturer's specifications.

 # 005 [25 Pa. Code §129.91]

Control of major sources of NOx and VOCs

This source shall be operated in such a manner as to not cause air pollution.

[From RACT Permit Number OP 24-131, Revision 1, Condition #4, issued on November 20, 2009.]

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

SECTION D. Source Level Requirements

Source ID: 140 Source Name: (2) SOLVENT DEGREASERS

Source Capacity/Throughput: 0.150 Sq Ft/HR PETROLEUM DISTILLATES

PROC 140 → STAC Z01

I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

 # 001 [25 Pa. Code §129.63]

Degreasing operations

(a) Cold cleaning machines. Except for those subject to the Federal National emissions standards for hazardous air pollutants (NESHAP) for halogenated solvent cleaners under 40 CFR Part 63 (relating to National emission standards for hazardous air pollutants for source categories), this subsection applies to cold cleaning machines that use 2 gallons or more of solvents containing greater than 5% VOC content by weight for the cleaning of metal parts.

(1) Immersion cold cleaning machines shall have a freeboard ratio of 0.50 or greater.

(2) Immersion cold cleaning machines and remote reservoir cold cleaning machines shall:

(i) Have a permanent, conspicuous label summarizing the operating requirements in paragraph (3). 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.

(ii) 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.

(3) Cold cleaning machines shall be operated in accordance with the following procedures:

(i) 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.

(ii) 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.

(iii) Sponges, fabric, wood, leather, paper products and other absorbent materials may not be cleaned in the cold cleaning machine.

(iv) Air agitated solvent baths may not be used.

(v) Spills during solvent transfer and use of the cold cleaning machine shall be cleaned up immediately.

(4) After December 22, 2002, a person may not use, sell or offer for sale for use in a cold cleaning machine 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.

(5) On and after December 22, 2002, a person who sells or offers for sale any solvent containing VOCs for use in a cold cleaning machine shall provide, to the purchaser, the following written information:

(i) The name and address of the solvent supplier.

(ii) The type of solvent including the product or vendor identification number.

(iii) The vapor pressure of the solvent measured in mm hg at 20°C (68°F).

(6) A person who operates a cold cleaning machine shall maintain for at least 2 years and shall provide to the Department, on request, the information specified in paragraph (5). 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 to comply with this section.

(7) Paragraph (4) does not apply:

(i) To cold cleaning machines used in extreme cleaning service.

(ii) If the owner or operator of the cold cleaning machine demonstrates, and the Department approves in writing, that compliance with paragraph (4) will result in unsafe operating conditions.

(iii) To immersion cold cleaning machines with a freeboard ratio equal to or greater than 0.75.

VII. ADDITIONAL REQUIREMENTS.

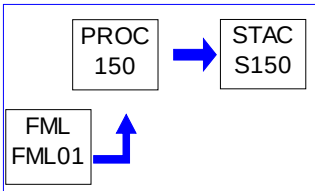
No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

SECTION D. Source Level Requirements

Source ID: 150 Source Name: EMERGENCY POWER GENERATOR

Source Capacity/Throughput: 99.000 CF/HR Natural Gas

Conditions for this source occur in the following groups: 8 SUBPART ZZZZ



I. RESTRICTIONS.

Emission Restriction(s).

 # 001 [25 Pa. Code §123.13]

Processes

No person may permit the emission into the outdoor atmosphere of particulate matter from this process in a manner that the concentration of particulate matter in the effluent gas exceeds 0.04 grain per dry standard cubic foot.

 # 002 [25 Pa. Code §123.21]

General

No person may permit the emission into the outdoor atmosphere of sulfur oxides from a source in a manner that the concentration of the sulfur oxides, expressed as SO2, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

SECTION D. Source Level Requirements

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

SECTION D. Source Level Requirements

Source ID: 160 Source Name: EMERGENCY POWER GENERATOR (600 OFFICE)

Source Capacity/Throughput: 0.092 MMBTU/HR
294.000 CF/HR Natural Gas

Conditions for this source occur in the following groups: 7 SUBPART JJJJ

I. RESTRICTIONS.

Emission Restriction(s).

 # 001 [25 Pa. Code §123.13]

Processes

No person may permit the emission into the outdoor atmosphere of particulate matter from this process in a manner that the concentration of particulate matter in the effluent gas exceeds 0.04 grain per dry standard cubic foot.

 # 002 [25 Pa. Code §123.21]

General

No person may permit the emission into the outdoor atmosphere of sulfur oxides from a source in a manner that the concentration of the sulfur oxides, expressed as SO2, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

SECTION D. Source Level Requirements

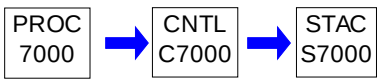
VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

SECTION D. Source Level Requirements

Source ID: 7000 Source Name: PURIFICATION FURNACES (10)

Source Capacity/Throughput: 5.000 Tons/HR CARBON



I. RESTRICTIONS.

Emission Restriction(s).

 # 001 [25 Pa. Code §123.13]

Processes

No person may permit the emission into the outdoor atmosphere of particulate matter from this process in a manner that the concentration of particulate matter in the effluent gas exceeds 0.04 grain per dry standard cubic foot.

 # 002 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-308-001 Condition #11 issued September 5, 1995]

Chlorine emissions from the scrubber shall not exceed 1.0 ppm.

 # 003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

No Freon is to be used in the operation of this source.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

III. MONITORING REQUIREMENTS.

 # 004 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131I]

The tower scrubber pH shall be monitored and recorded every hour when a furnace is in the chlorination phase. [This condition replaces the condition from Plan Approval 24-308-001 Condition # 10 issued September 5, 1995, requiring a continuous pH monitor and recorder shall be maintained to track the pH level of the scrubber liquid.]

IV. RECORDKEEPING REQUIREMENTS.

 # 005 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131I]

The permittee shall maintain a log of all preventative maintenance inspections for the fume scrubbers and associated equipment. The inspection log shall contain, at a minimum, the dates of the inspections, any potential problems or defects that were detected, the steps taken to correct them, the pressure drop across the tower scrubber, the pressure drop across the high energy venturi scrubber, and the pH of the scrubbing solution of the tower scrubber.

 # 006 [25 Pa. Code §127.441]

Operating permit terms and conditions.

a) The permittee shall maintain records of furnace operations to include the beginning and ending times of the

SECTION D. Source Level Requirements

chlorination phase for each furnace.

b) A record of the maintenance inspections shall be maintained for a period of five (5) years.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

 # 007 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-308-001 Condition # 13 issued September 5, 1995 and Plan Approval 24-131I]
a) The permittee shall maintain the following equipment in workable condition at all times:

- Liquid flow alarms
- Temperature alarms
- pH controller
- Hi/Low liquid level alarms
- Magnehelic gauge

[From Plan Approval 24-131I]
b) This source shall not be operated when the scrubber (Venturi, Tower, High Energy Venturi) is not operating.

[From Plan Approval 24-131I]
c) No more than two (2) furnaces shall be in the chlorination phase at any time. [This condition replaces: Only one furnace per scrubber shall be put into the chlorination phase at any time.]

[From Plan Approval 24-131I]
d) The tower scrubber liquid pH shall be maintained at 10 or greater when a furnace is in the chlorination phase. [This condition replaces the condition that required pH of 10 or greater during all periods of operation.]

[From Plan Approval 24-308-001 Condition # 16 amended July 22, 1997, and Plan Approval 24-131I]
e) The water gauge pressure drop across the tower scrubber shall be greater than 0" w.g. and less than 4" w.g. when in operation. [This condition replaces the condition that required the range to be 0" to 2"]

[From Plan Approval 24-308-001 Condition # 14 issued September 5, 1995]
f) The source shall be maintained and operated in accordance with the manufacturer's recommendations.

 # 008 [25 Pa. Code §127.441]

Operating permit terms and conditions.

In order to assure compliance with the emission limitations for this source, the permittee shall perform the following:

(1) The permittee shall maintain and operate the control device in accordance with the manufacturer's specifications.

(2) The permittee shall perform weekly preventative maintenance inspections of the control device and all associated equipment.

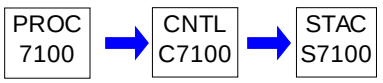
VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

SECTION D. Source Level Requirements

Source ID: 7100 Source Name: (12) GRAPHITE PURIFICATION FURNACES

Source Capacity/Throughput: 350.000 Lbs/HR CARBON



I. RESTRICTIONS.

Emission Restriction(s).

 # 001 [25 Pa. Code §123.13]

Processes

No person may permit the emission into the outdoor atmosphere of particulate matter from this process in a manner that the concentration of particulate matter in the effluent gas exceeds 0.04 grain per dry standard cubic foot.

 # 002 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

a) Chlorine emissions from the scrubber shall not exceed 1.0 ppm.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

III. MONITORING REQUIREMENTS.

 # 003 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131I]

The tower scrubber pH shall be monitored and recorded hourly when a furnace is in the chlorination phase.

IV. RECORDKEEPING REQUIREMENTS.

 # 004 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131I]

The permittee shall maintain a log of all preventative maintenance inspections for the fume scrubbers and associated equipment. The inspection log shall contain, at a minimum, the dates of the inspections, any potential problems or defects that were detected, the steps taken to correct them, the pressure drop across the tower and pressure drop across the high energy venturi scrubber, and the pH of the tower scrubber.

 # 005 [25 Pa. Code §127.441]

Operating permit terms and conditions.

a) The permittee shall maintain records of furnace operations to include the beginning and ending times of the chlorination phase for each furnace.

b) A record of the maintenance inspections shall be maintained for a period of five (5) years.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

SECTION D. Source Level Requirements

VI. WORK PRACTICE REQUIREMENTS.

 # 006 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131I]

a) The permittee shall maintain the following scrubber control and monitoring equipment in workable condition at all times:

- Liquid flow alarms
- Temperature alarms
- pH controller
- Hi/Low liquid level alarms
- Magnehelic gauge

[From Plan Approval 24-131I]

b) This source shall not be operated when the scrubber (Venturi, Tower, High Energy Venturi) is not operating.

c) No more than two (2) furnaces shall be in the chlorination phase at any time.

[From Plan Approval 24-131I]

d) The tower scrubber liquid pH shall be maintained at 10 or greater when a furnace is in the chlorination phase. This operating pH range shall be posted in a visible location in the vicinity of the tower scrubber. [This condition replaces the range of 5 to 9 during all periods of operation.]

[From Plan Approval 24-131I]

e) The water gauge pressure drop across the tower scrubber shall be greater than 0" w.g. and less than 4" w.g. when in operation. This operating pressure drop range shall be posted in a visible location in the vicinity of the scrubber. [This condition replaces the range of 0" to 2"]

f) The source shall be maintained and operated in accordance with the manufacturer's recommendations and in accordance with good air pollution control practices.

 # 007 [25 Pa. Code §127.441]

Operating permit terms and conditions.

In order to assure compliance with the emission limitations for this source, the permittee shall perform the following:

(1) The permittee shall maintain and operate the control device in accordance with the manufacturer's specifications.

(2) The permittee shall perform weekly preventative maintenance inspections of the control device and all associated equipment.

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

SECTION D. Source Level Requirements

Source ID: 7101 Source Name: V.O.G. FURNACE 1

Source Capacity/Throughput:

I. RESTRICTIONS.

Emission Restriction(s).

 # 001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131F Condition #5]
a) Total particulate matter emissions from this source, as measured from the scrubber stack, shall not exceed 0.04 grains/dscf.

[From Plan Approval 24-131F Condition #6]
b) Total chlorine emissions from this source, as measured from the scrubber stack, shall not exceed 1 ppm(v) of effluent gas.

[From Plan Approval 24-131H]
c) The Hydrogen Fluoride (HF) emissions shall not exceed 1 ppmv.

Throughput Restriction(s).

 # 002 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131H]

The permittee shall not introduce more than 6 pounds per hour of Freon (HFC 134a) into the furnace.

II. TESTING REQUIREMENTS.

 # 003 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131H]
a) The permittee shall perform quarterly Drager Tube testing for HF to show compliance with the 1 ppm emission limit. The test will consist of two samples done at 1 hour interval with the Freon (HFC 134a) addition rate near the maximum allowed. The initial test shall be performed within 90 days of plan approval issuance and then quarterly thereafter.

[From Plan Approval 24-131H]
b) Records of the Drager Tube testing results shall be maintained at the facility.

III. MONITORING REQUIREMENTS.

 # 004 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131I]

The tower scrubber pH shall be monitored and recorded every hour when the furnace is in chlorination phase or while flowing Freon gas.

IV. RECORDKEEPING REQUIREMENTS.

 # 005 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131I]

SECTION D. Source Level Requirements

a) The permittee shall maintain records, at a minimum, of pressure drop across the tower and pressure drop across the high energy venturi and tower pH readings, and maintenance performed on the control device. The records shall be maintained onsite for a minimum of five years and shall be made available to the Department upon request. [This condition replaces the condition from Plan Approval 24-131F Condition #11]

[From Plan Approval 24-131H]
b) The permittee shall maintain records of the Freon (HFC 134a) addition rate to the furnace to ensure compliance with the addition rate limit.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

 # 006 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-0131F Conditions #5, #6, & #12]
a) In order to assure compliance with the emission limitations for this source, the permittee shall maintain and operate this source and associated control device in accordance with the manufacturer's specifications and in a manner consistent with good air pollution control practices.

[From Plan Approval 24-131I]
b) The scrubber liquid pH shall be maintained at 10 or greater when a furnace is in the chlorination phase or while flowing Freon gas. [This condition replaces the condition from Plan Approval 24-0131F Condition #7]

[From Plan Approval 24-0131I]
c) The water gauge pressure across the scrubber tower shall be greater than 0" w.g. and less than 4" w.g. when in operation. [This condition replaces the condition from Plan Approval 24-0131F Condition #8]

[From Plan Approval 24-0131I]
d) The scrubber shall be equipped with liquid flow alarms, a scrubber tower pressure drop gauge, temperature alarms, pH controller, and Hi/Low liquid level alarms. The gauges shall be mounted in easily accessible locations, and shall be maintained in good working conditions at all times. Pressure drop and pH gauges shall be maintained in accordance with manufacturer's specifications. The source shall not be operated when the scrubber (Venturi, Tower, High Energy Venturi) is not operating. [This condition replaces the condition from Plan Approval 24-0131F Condition #9]

[From Plan Approval 24-0131F Condition #10]
e) The permittee shall perform weekly preventative maintenance inspections of the control device and associated equipment.

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

SECTION D. Source Level Requirements

Source ID: 7102 Source Name: CVD REACTOR 5 AND 5B

Source Capacity/Throughput: N/A GRAPHITE/ORGANOSILANE

Conditions for this source occur in the following groups: 2 SCRUBBER REQ PA 24-131Q
4 REACTOR SOURCES PA 24-131Q

I. RESTRICTIONS.

Operation Hours Restriction(s).

 # 001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Plan Approval 24-131Q]

(a) The permittee shall limit the hours of operation for source 7102 reactors to less than 3,080 hours per year based on a 12-month consecutive period.

(b) The permittee shall limit the operation of both reactors sharing a control device, to one reactor being operational at a time.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

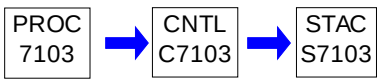
VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

SECTION D. Source Level Requirements

Source ID: 7103 Source Name: CVD REACTOR 6 & 7

Source Capacity/Throughput: N/A GRAPHITE/ORGANOSILANE



I. RESTRICTIONS.

Emission Restriction(s).

 # 001 [25 Pa. Code §123.13]

Processes

No person may permit the emission into the outdoor atmosphere of particulate matter from this process in a manner that the concentration of particulate matter in the effluent gas exceeds 0.04 grain per dry standard cubic foot.

 # 002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Plan Approval 24-131K]

(a) HCl emissions from this source, as measured from the scrubber stack, shall not exceed 0.02 pounds/hour averaged over the reaction period (Deposition Cycle). [This condition replaces plan approval 24-131J condition]

Operation Hours Restriction(s).

 # 003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Plan Approval 24-131K]
(a) The permittee shall limit the hours of operation for each reactor to less than 6,450 hours per year based on a 12-month consecutive period. [This permit condition replaces Condition #003(a) from Plan Approval 24-131J]

[Plan Approval 24-131J]
(b) The permittee shall limit the operation of both reactors to one reactor being operational at a time.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

 # 004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Plan Approval 24-131J]
(a) The permittee shall maintain a record of all preventative maintenance inspections of the control device. These records shall, at a minimum, contain the dates of the inspections, any problems or defects, the actions taken to correct the problems or defects, and any routine maintenance performed.

[Plan Approval 24-131J]
(b) The permittee shall maintain records of the operational inspections. These records shall, at a minimum, contain the following:

SECTION D. Source Level Requirements

1. Pressure drop across the scrubber
2. Scrubber liquid flow rate
3. Low flow alarm check

[Plan Approval 24-131J]
(c) The records of the maintenance and operational inspections shall be maintained at the facility for a period of five (5) years and shall be made available to the Department upon request.

[Plan Approval 24-131J]
(d) The permittee shall keep a record of the hours of operation for each reactor as follows:

1. On a monthly basis
2. On a 12-month consecutive period basis

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

 # 005 [25 Pa. Code §127.441]
Operating permit terms and conditions.

[Plan Approval 24-131J]
(a) The permittee shall perform a weekly operational inspection of the control device, including but not limited to the following:

1. Inspect the low flow alarm by shutting off the fluid flow to the scrubber and verifying that the alarm in the control room triggers.
2. Monitoring pressure drop
3. Monitoring inlet water flow rate

[Plan Approval 24-131J]
(b) The permittee shall maintain a manometer or similar device to measure the pressure drop across the control device. The manometer or similar device shall be mounted in an accessible area and maintained in good operating conditions at all times.

[Plan Approval 24-131J]
(c) The permittee shall maintain an inlet water flow gauge. The manometer or similar device shall be mounted in an accessible area and maintained in good operating conditions at all times.

[Plan Approval 24-131J]
(d) Scrubber operating parameters, including inlet water flow rate and pressure drop shall be operated in a range defined by the manufacturer, or in a range developed during the initial stack test or the most recently approved stack test. The desired operating range shall be submitted to the Department for approval and inclusion into the facility operating permit prior to the expiration of this plan approval.

[The facility submitted the following ranges for Reactor 6/7 Scrubber as required by paragraph (d) and these ranges were determined to be acceptable to the Department based on the initial operating permit inspection and recommendation to incorporate the source into the operating permit:

Inlet Water Flow Rate - Minimum of 20 gallons/hour
Pressure Drop - (0.005 to 0.40 inches of water)]

[Plan Approval 24-131J]

SECTION D. Source Level Requirements

(e) The permittee shall operate the control device at all times that the source is in operation.

[Plan Approval 24-131J]
(f) The permittee shall maintain and operate the source and control device in accordance with the manufacturer's specifications and in accordance with good air pollution control practices.

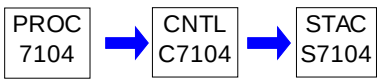
VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

SECTION D. Source Level Requirements

Source ID: 7104 Source Name: CVD REACTOR 8

Source Capacity/Throughput: N/A GRAPHITE/ORGANOSILANE



I. RESTRICTIONS.

Emission Restriction(s).

 # 001 [25 Pa. Code §123.13]

Processes

No person may permit the emission into the outdoor atmosphere of particulate matter from this process in a manner that the concentration of particulate matter in the effluent gas exceeds 0.04 grain per dry standard cubic foot.

 # 002 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Plan Approval 24-131M]

(a) HCl emissions from this source, as measured from the scrubber stack, shall not exceed 0.02 pounds/hour averaged over the reaction period (Deposition Cycle).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

III. MONITORING REQUIREMENTS.

 # 003 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Plan Approval 24-131M]

(a) The permittee shall maintain a pH meter or similar device to measure the pH of the scrubber liquid solution. The pH meter or similar device shall be mounted in an accessible area and maintained in good operating conditions at all times.

(b) The permittee shall maintain a makeup water flow gauge and a scrubber sprayhead flow gauge. The flow gauge or similar device shall be mounted in an accessible area and maintained in good operating conditions at all times.

IV. RECORDKEEPING REQUIREMENTS.

 # 004 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Plan Approval 24-131M]

(a) The permittee shall maintain a record of all preventative maintenance inspections of the control device. These records shall, at a minimum, contain the dates of the inspections, any problems or defects, the actions taken to correct the problems or defects, and any routine maintenance performed.

(b) The permittee shall maintain a record of the following from the operational inspections:

1. Low flow alarm check

2. Low pH alarm check

(c) The permittee shall record the following operational data from the control device (these records may be done with strip

charts recorders, data acquisition systems, or manual log entries):

1. pH of the scrubber liquid solution - hourly when scrubber is in operation

2. Scrubber makeup liquid flow rate - daily defined as at least once every calendar day

3. Scrubber sprayhead flow rate - daily defined as at least once every calendar day

(d) The permittee shall record all excursions and corrective actions taken in response to an excursion and the time elapsed until the corrective actions have been taken.

(e) The permittee shall maintain records of all monitoring downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable). The permittee shall also record the dates, times and durations, probable causes and corrective actions taken for the incidents.

(f) The permittee shall record all inspections, repairs, and maintenance performed on the monitoring equipment.

(g) All required records shall be kept for a period of five (5) years and shall be made available to the Department upon request.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

 # 005 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Plan Approval 24-131M]

(a) The permittee shall perform a weekly operational inspection of the control device.

(b) The permittee shall operate the control device at all times that the source is in operation.

(c) The permittee shall maintain and operate the source and control device in accordance with the manufacturer's specifications and in accordance with good air pollution control practices.

(d) The permittee shall adhere to the approved indicator range for the control device so that operation within the range shall provide reasonable assurance of compliance. A departure from the specified indicator range over a specified averaging period shall be defined as an excursion. The approved indicator ranges for the parameters are, as follows or as determined during the initial performance test or any subsequently approved performance tests unless otherwise stated:

1. Scrubber liquid pH greater than 9.0 on daily average.

2. Scrubber inlet water flow rate greater than or equal to 10 liters/minute.

3. Scrubber sprayhead flow rate greater than or equal to 10 liters/minute.

The permittee, with prior Departmental approval, may conduct additional performance tests to determine a new control device operating ranges.

(e) Response to excursions or exceedances.

(1) Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as

expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

(2) Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

VII. ADDITIONAL REQUIREMENTS.

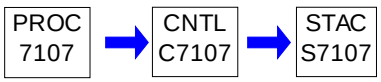
No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

SECTION D. Source Level Requirements

Source ID: 7107 Source Name: CVD REACTORS 9 AND 10

Source Capacity/Throughput: N/A GRAPHITE/ORGANOSILANE

Conditions for this source occur in the following groups: 1 SCRUBBER REQ PA 24-131O
3 REACTOR SOURCES PA 24-131O



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

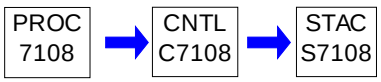
No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

SECTION D. Source Level Requirements

Source ID: 7108 Source Name: CVD REACTORS 11 AND 12

Source Capacity/Throughput: N/A GRAPHITE/ORGANOSILANE

Conditions for this source occur in the following groups: 1 SCRUBBER REQ PA 24-131O
3 REACTOR SOURCES PA 24-131O



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

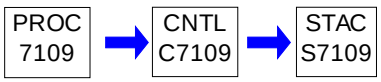
No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

SECTION D. Source Level Requirements

Source ID: 7109 Source Name: CVD REACTORS 13 AND 14

Source Capacity/Throughput: N/A GRAPHITE/ORGANOSILANE

Conditions for this source occur in the following groups: 1 SCRUBBER REQ PA 24-131O
3 REACTOR SOURCES PA 24-131O



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

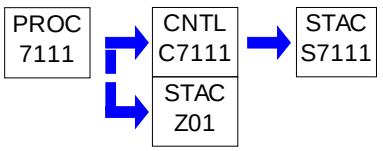
No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

SECTION D. Source Level Requirements

Source ID: 7111 Source Name: CVD REACTOR 16

Source Capacity/Throughput: 44.100 Lbs/HR MTS

Conditions for this source occur in the following groups: 6 SOURCE TESTING



I. RESTRICTIONS.

Emission Restriction(s).

 # 001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Plan Approval 24-131R]
a) Total particulate matter emissions from the source, as measured from the scrubber stack, shall not exceed 0.04 grains/dscf.

[Plan Approval 24-131R]
b) HCl emissions from the source, as measured from the scrubber stack, shall not exceed 0.02 lbs/hour, averaged over the reaction period (Deposition Cycle).

II. TESTING REQUIREMENTS.

 # 002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

(a) Twelve (12) to eighteen (18) months prior to the expiration of the facility's current operating permit (reoccurring), a stack test shall be performed in accordance with the provisions of Chapter 139 of the Rules and Regulations of the Department of Environmental Protection. The stack test shall be performed while the aforementioned source is operating at its maximum achievable production rate. The stack test shall determine the source's HCl emission rate.

(b) Source test submission requirements are defined in Section E - Group Source Testing Requirement.

(c) Initial testing was conducted on July 17-July 19, 2018 for Plan Approval 24-131S.

III. MONITORING REQUIREMENTS.

 # 003 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Plan Approval 24-131R]
(a) The permittee shall maintain the following:

1. Manometer or similar device to measure the pressure drop at the scrubber stack.

2. Makeup water flow gauge to measure makeup water flow to scrubber.

3. Scrubber sprayhead flow gauge to measure scrubber sprayhead flow.

4. pH meter to measure pH of the scrubber liquid solution.

[Plan Approval 24-131R]

SECTION D. Source Level Requirements

(b) The monitoring equipment shall be mounted in an accessible area and maintained in good operating conditions at all times.

IV. RECORDKEEPING REQUIREMENTS.

 # 004 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Plan Approval 24-131R]
(a) The permittee shall maintain a record of all preventative maintenance inspections of the control device. These records shall, at a minimum, contain the dates of the inspections, any problems or defects, the actions taken to correct the problems or defects, and any routine maintenance performed.

[Plan Approval 24-131R]
(b) The permittee shall maintain a record of the following from the operational inspections:

1. Low flow alarm check

2. Low pH alarm check

[Plan Approval 24-131R]
(c) The permittee shall record the following operational data from the control device (these records may be done with strip charts recorders, data acquisition systems, or manual log entries):

1. Pressure drop at the scrubber stack - at least once during each product run.

2. pH of scrubber liquid solution - hourly when scrubber is in operation.

3. Scrubber makeup liquid flow rate - daily defined as at least once every calendar day.

4. Scrubber sprayhead flow rate - daily defined as at least once every calendar day.

[Plan Approval 24-131R]
(d) The permittee shall record all excursions and corrective actions taken in response to an excursion and the time elapsed until the corrective actions have been taken.

[Plan Approval 24-131R]
(e) The permittee shall maintain records of all monitoring downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable). The permittee shall also record the dates, times and durations, probable causes and corrective actions taken for the incidents.

[Plan Approval 24-131R]
(f) The permittee shall record all inspections, repairs, and maintenance performed on the monitoring equipment.

[Plan Approval 24-131R]
(g) All required records shall commence upon startup of the source, shall be kept for a period of five (5) years, and shall be made available to the Department upon request.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

SECTION D. Source Level Requirements

VI. WORK PRACTICE REQUIREMENTS.

 # 005 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Plan Approval 24-131R]
(a) The permittee shall perform a daily operational inspection of the source and control device.

[Plan Approval 24-131R]
(b) The permittee shall operate the control device at all times that the source is in operation.

[Plan Approval 24-131R]
(c) The permittee shall maintain and operate the source and control device in accordance with the manufacturer's specifications and in accordance with good air pollution control practices.

[Plan Approval 24-131R]
(d) The permittee shall adhere to the approved indicator range for the control device so that operation within the range shall provide reasonable assurance of compliance. A departure from the specified indicator range over a specified averaging period shall be defined as an excursion. The approved indicator ranges for the parameters are, as follows or as determined during the initial performance test or any subsequently approved performance tests unless otherwise stated:

1. Scrubber pressure drop less than 300 Pa. If initial reading is greater than 300 Pa, take 5 additional readings a minute apart and verify average is less than 300 Pa. Document 5 readings on Excursion Log

2. Scrubber liquid pH greater than 11.0 on daily average.

3. Scrubber inlet water flow rate greater than or equal to 15 gallons/hour.

4. Scrubber sprayhead flow rate greater than or equal to 8 gallons/minute.

The permittee, with prior Departmental approval, may conduct additional performance tests to determine a new control device operating ranges.

[Plan Approval 24-131R]
(e) Response to excursions or exceedances.

1. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

2. Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

SECTION D. Source Level Requirements

Source ID: 7112 Source Name: CVD REACTOR 17

Source Capacity/Throughput: 20.000 Each/HR

Conditions for this source occur in the following groups: 6 SOURCE TESTING

I. RESTRICTIONS.

Emission Restriction(s).

 # 001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131T]

(a) Total particulate matter emissions from the source, as measured from the scrubber stack, shall not exceed 0.04 grains/dscf.

(b) HCl emissions from the source, as measured from the scrubber stack, shall not exceed 0.02 lbs/hour, averaged over the reaction period (Deposition Cycle).

II. TESTING REQUIREMENTS.

 # 002 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131T]

(a) Within 180 days after initial startup and twelve (12) to eighteen (18) months prior to the expiration of the facility's current operating permit (reoccurring), a stack test shall be performed in accordance with the provisions of Chapter 139 of the Rules and Regulations of the Department of Environmental Protection. The stack test shall be performed while the aforementioned source is operating at its maximum achievable production rate. The stack test shall determine the source's HCl emission rate.

(b) - (f) [Replaced with updated Testing Requirement identified in Section E - Group Source Testing Requirement]

III. MONITORING REQUIREMENTS.

 # 003 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131T]

(a) The permittee shall maintain the following:
(1) Manometer or similar device to measure the pressure across the control device.
(2) Makeup water flow gauge to measure makeup water flow to scrubber.
(3) Scrubber sprayhead flow gauge to measure scrubber sprayhead flow.
(4) pH meter to measure pH of the scrubber liquid solution.

(b) The permittee shall maintain and operate the following alarm systems:
(1) Low flow alarm
(2) Low pH alarm

(c) The monitoring equipment shall be mounted in an accessible area and maintained in good operating conditions at all

SECTION D. Source Level Requirements

times.

IV. RECORDKEEPING REQUIREMENTS.

 # 004 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131T]

(a) All inspection observations and maintenance performed on the control device and source shall be recorded in a log. This record shall, at a minimum, include:

(1) Time and date of observation
(2) Name, title, and initials of the observer
(3) A detailed description of the observation made
(4) Any corrective action taken as result of the observation

(b) The permittee shall maintain a record of the following from the operational inspections:

(1) Low flow alarm check
(2) Low pH alarm check

(c) The permittee shall record the following operational data from the control device (these records may be done with strip charts recorders, data acquisition systems, or manual log entries):

(1) Pressure drop across the control device - at least once during each product run.
(2) pH of scrubber liquid solution - at least once during each product run.
(3) Scrubber sprayhead flow rate - daily defined as at least once every calendar day.

(d) The permittee shall record all excursions and corrective actions taken in response to an excursion. This record shall, at a minimum, include:

(1) The time and date of the excursion observation
(2) The time elapsed until the corrective actions have been taken
(3) Name, title, and initials of the observer
(4) A detailed description of the observation made
(5) The corrective action taken as result of the observation

(e) The permittee shall maintain records of all monitoring downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable). The permittee shall also record the dates, times and durations, probable causes and corrective actions taken for the incidents.

(f) The permittee shall record all inspections, repairs, and maintenance performed on the monitoring equipment.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

 # 005 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131T]

SECTION D. Source Level Requirements

(a) A copy of the control device manufacturer's operational and maintenance literature shall be maintained on site and shall be readily available.

(b) The permittee shall perform a daily operational inspection of the source and control device.

(c) The permittee shall operate the control device at all times that the source is in operation.

(d) The permittee shall maintain and operate the source and control device in accordance with the manufacturer's specifications and in accordance with good air pollution control practices.

(e) The permittee shall adhere to the approved indicator range for the control device so that operation within the range shall provide reasonable assurance of compliance. A departure from the specified indicator range over a specified averaging period shall be defined as an excursion. The approved indicator ranges for the parameters are, as follows or as determined during the initial performance test or any subsequently approved performance tests unless otherwise stated:

(1) Scrubber pressure drop - 0.005-0.40 psi.
(2) Scrubber liquid pH greater than 10.5 (established during stack test).
(3) Make up water flow rate greater than 7 m3/hr (established during stack test)
(4) Spray head flow rate greater than 1.2 m3/hr (established during stack test)
(5) Reactor pressure less than 300 Pa, if greater than 300 Pa take 5 additional readings (each one minute apart). Verify average is less than 300 Pa otherwise identify the pressure reading as an excursion.

(f) The permittee, with prior Departmental approval, may conduct additional performance tests to determine a new control device operating ranges.

(g) Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable. Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

SECTION D. Source Level Requirements

Source ID: 7113 Source Name: V.O.G. FURNACE 2

Source Capacity/Throughput: 413.000 Lbs/HR

Conditions for this source occur in the following groups: 6 SOURCE TESTING

I. RESTRICTIONS.

Emission Restriction(s).

 # 001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131T]

(a) Total particulate matter emissions from this source, as measured from the scrubber stack, shall not exceed 0.04 grains/dscf.

(b) Total chlorine emissions (including HCL) from this source, as measured from the scrubber stack, shall not exceed 1 ppm(v) of effluent gas.

(c) Total Hydrogen Fluoride (HF) emissions from this source, as measured from the scrubber stack, shall not exceed 1 ppm(v) of effluent gas.

Throughput Restriction(s).

 # 002 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131T]

(a) The permittee shall not introduce more than 6 pounds per hour of Freon (HFC 134a) into the furnace.

II. TESTING REQUIREMENTS.

 # 003 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131T]

(a) Within 180 days after initial startup and twelve (12) to eighteen (18) months prior to the expiration of the facility's current operating permit (reoccurring), a stack test shall be performed in accordance with the provisions of Chapter 139 of the Rules and Regulations of the Department of Environmental Protection. The stack test shall be performed while the aforementioned source is operating at its maximum achievable production rate. The stack test shall determine the source's HCl and HF emission rates.

(b) - (f) [Replaced with updated Testing Requirement identified in Section E - Group Source Testing Requirement]

SECTION D. Source Level Requirements

III. MONITORING REQUIREMENTS.

 # 004 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131T]

(a) The tower scrubber pH shall be monitored and recorded every hour when the furnace is in chlorination phase or while flowing Freon gas.

IV. RECORDKEEPING REQUIREMENTS.

 # 005 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131T]

(a) The permittee shall maintain records, at a minimum, of pressure drop across the tower and pressure drop across the high energy venturi and tower pH readings, and maintenance performed on the control device. The records shall be maintained onsite for a minimum of five years and shall be made available to the Department upon request.

(b) The permittee shall maintain records of the Freon (HFC 134a) addition rate to the furnace to ensure compliance with the addition rate limit.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

 # 006 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131T]

(a) In order to assure compliance with the emission limitations for this source, the permittee shall maintain and operate this source and associated control device in accordance with the manufacturer's specifications and in a manner consistent with good air pollution control practices.

(b) The scrubber liquid pH shall be maintained at 10 or greater when a furnace is in the chlorination phase or while flowing Freon gas.

(c) The water gauge pressure across the scrubber tower shall be greater than 0" w.g. and less than 4" w.g. when in operation.

(d) The scrubber shall be equipped with liquid flow alarms, a scrubber tower pressure drop gauge, temperature alarms, pH controller, and Hi/Low liquid level alarms. The gauges shall be mounted in easily accessible locations, and shall be maintained in good working conditions at all times. Pressure drop and pH gauges shall be maintained in accordance with manufacturer's specifications. The source shall not be operated when the scrubber (Venturi, Tower, High Energy Venturi) is not operating.

(e) The permittee shall perform weekly preventative maintenance inspections of the control device and associated equipment.

(f) The permittee shall limit the operation of Sources 7101 & 7113 (V.O.G. FURNACE 1 & V.O.G. FURNACE 2) such that only one furnace is in the chlorination phase at a time.

SECTION D. Source Level Requirements

VII. ADDITIONAL REQUIREMENTS.

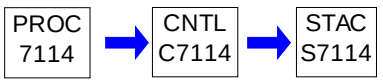
No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

SECTION D. Source Level Requirements

Source ID: 7114 Source Name: CVD REACTORS 18 AND 19

Source Capacity/Throughput: N/A MTS

Conditions for this source occur in the following groups: 6 SOURCE TESTING



I. RESTRICTIONS.

Emission Restriction(s).

 # 001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131V, Section D Source 7114, Condition #001]

a) Total particulate matter emissions from the source, as measured from the scrubber stack, shall not exceed 0.04 grains/dscf.

b) HCl emissions from the source, as measured from the scrubber stack, shall not exceed 0.02 lbs/hour, averaged over the reaction period (Deposition Cycle).

II. TESTING REQUIREMENTS.

 # 002 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131V, Section D Source 7114, Condition #002]

Within 180 days after initial startup and twelve (12) to eighteen (18) months prior to the expiration of the facility's current operating permit (reoccurring), a stack test shall be performed in accordance with the provisions of Chapter 139 of the Rules and Regulations of the Department of Environmental Protection. The stack test shall be performed while the aforementioned source is operating at its maximum achievable production rate. The stack test shall determine the source's HCl emission rate.

III. MONITORING REQUIREMENTS.

 # 003 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131V, Section D Source 7114, Condition #003]

(a) The permittee shall maintain the following:
1. Manometer or similar device to measure the pressure across the control device.
2. Makeup water flow gauge to measure makeup water flow to scrubber.
3. Scrubber sprayhead flow gauge to measure scrubber sprayhead flow.
4. pH meter to measure pH of the scrubber liquid solution.

(b) The permittee shall maintain and operate the following alarm systems:
I. Low flow alarm
II. Low pH alarm

(c) The monitoring equipment shall be mounted in an accessible area and maintained in good operating conditions at all times.

SECTION D. Source Level Requirements

IV. RECORDKEEPING REQUIREMENTS.

 # 004 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131V, Section D Source 7114, Condition #004]

(a) All inspection observations and maintenance performed on the control device shall be recorded in a log. This record shall, at a minimum, include:
1) Time and date of observation
2) Name, title, and initials of the observer
3) A detailed description of the observation made
4) Any corrective action taken as result of the observation

(b) The permittee shall maintain a record of the following from the operational inspections:
I. Low flow alarm check
II. Low pH alarm check

(c) The permittee shall record the following operational data from the control device (these records may be done with strip charts recorders, data acquisition systems, or manual log entries):
I. Pressure drop across the control device - at least once during each product run.
II. pH of scrubber liquid solution - at least once during each product run.
III. Scrubber sprayhead flow rate - daily defined as at least once every calendar day.

(d) The permittee shall record all excursions and corrective actions taken in response to an excursion. This record shall, at a minimum, include:
1) The time and date of the excursion observation
2) The time elapsed until the corrective actions have been taken
3) Name, title, and initials of the observer
4) A detailed description of the observation made
5) The corrective action taken as result of the observation

(e) The permittee shall maintain records of all monitoring downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable). The permittee shall also record the dates, times and durations, probable causes and corrective actions taken for the incidents.

(f) The permittee shall record all inspections, repairs, and maintenance performed on the monitoring equipment.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

 # 005 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131V, Section D Source 7114, Condition #005]

(a) A copy of the control device manufacturer's operational and maintenance literature shall be maintained on site and shall be readily available.

(b) The permittee shall perform a daily operational inspection of the source and control device.

(c) The permittee shall operate the control device at all times that the source is in operation.

SECTION D. Source Level Requirements

(d) The permittee shall limit the operation of both reactors (CVD Reactors 18 & 19) such that only one reactor is operated at any given time.

(e) The permittee shall maintain and operate the source and control device in accordance with the manufacturer's specifications and in accordance with good air pollution control practices.

(f) The permittee shall adhere to the approved indicator range for the control device so that operation within the range shall provide reasonable assurance of compliance. A departure from the specified indicator range over a specified averaging period shall be defined as an excursion. The approved indicator ranges for the parameters are, as follows or as determined during the initial performance test or any subsequently approved performance tests unless otherwise stated:
1) Scrubber pressure drop - range of -3.5 to -8.2 mbar.
2) Scrubber liquid pH greater than 10.0 or the pH level measured during the most recent stack test, whichever is greater.

(g) The permittee, with prior Departmental approval, may conduct additional performance tests to determine a new control device operating ranges.

(h) Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable. Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

SECTION D. Source Level Requirements

Source ID: 7200 Source Name: GRAPHITIZATION & PURIFYING FURNACES (5)

Source Capacity/Throughput: 262.500 Lbs/HR CARBON

I. RESTRICTIONS.

Emission Restriction(s).

 # 001 [25 Pa. Code §123.13]

Processes

No person may permit the emission into the outdoor atmosphere of particulate matter from this process in a manner that the concentration of particulate matter in the effluent gas exceeds 0.04 grain per dry standard cubic foot.

 # 002 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Plan Approval 24-131P and 24-131U]

Chlorine emissions from the scrubber shall not exceed 1.0 ppm.

Operation Hours Restriction(s).

 # 003 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Plan Approval 24-131U and 24-131P]

(a) Only two (2) of the five graphitization/purification furnaces in this source shall be under power at any time.

(b) This source shall operate while injecting chlorine no more than 5,304 hours per year, based on a 12 month rolling total.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

III. MONITORING REQUIREMENTS.

 # 004 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131U]

(a) The permittee shall maintain a magnehelic gauge or similar device to measure the pressure drop across the scrubber. The manometer or similar device shall be mounted in an accessible area and maintained in good operating conditions at all times.

(b) The permittee shall maintain liquid flow alarms. The flow alarm or similar device shall be mounted in an accessible area and maintained in good operating conditions at all times.

(c) The permittee shall maintain temperature alarms. The temperature alarm or similar device shall be mounted in an accessible area and maintained in good operating conditions at all times.

(d) The permittee shall maintain a pH controller. The pH controller or similar device shall be mounted in an accessible area and maintained in good operating conditions at all times.

SECTION D. Source Level Requirements

(e) The permittee shall maintain Hi/Low liquid level alarms. The Hi/Low liquid level alarm or similar device shall be mounted in an accessible area and maintained in good operating conditions at all times.

IV. RECORDKEEPING REQUIREMENTS.

 # 005 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Plan Approval 24-131P]

The permittee shall record the beginning and ending times of the chlorination phase for each furnace. These records shall be maintained for a period of five (5) years.

 # 006 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131U]

(a) The permittee shall maintain a record of all preventative maintenance inspections of the scrubbers and associated equipment. These records shall, at a minimum, contain the dates of the inspections, any problems or defects that were detected, the actions taken to correct the problems or defects, and any routine maintenance performed, water flow readings, pressure drop across the tower, pressure drop across the high energy venturi scrubber and the pH of the tower scrubber.

(b) The permittee shall maintain a record of the following from the operational inspections:

1. Liquid flow alarm check
2. Temperature alarm check
3. pH controller check
4. Hi/Low liquid level alarm check

(c) The permittee shall record the following operational data from the control device (these records may be done with strip charts recorders, data acquisition systems, or manual log entries):

1. Pressure drop at the scrubber - at least once during each product run.
2. Tower scrubber pH - every hour when a furnace is in the chlorination phase.

(d) The permittee shall record all excursions and corrective actions taken in response to an excursion and the time elapsed until the corrective actions have been taken.

(e) The permittee shall maintain records of all monitoring downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable). The permittee shall also record the dates, times and durations, probable causes and corrective actions taken for the incidents.

(f) The permittee shall record all inspections, repairs, and maintenance performed on the monitoring equipment.

(g) All required records shall be kept for a period of five (5) years and shall be made available to the Department upon request.

 # 007 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131P]

The permittee shall keep a record of the hours of operation for Source 7200 as follows:

1. On a monthly basis
2. On a 12-month consecutive period basis

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 (State Only General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

 # 008 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131U]

(a) The permittee shall perform a weekly operational inspection of the control device and all associated equipment.

(b) The permittee shall operate the control device (Venturi, Tower, High Energy Venturi) at all times that the source is in operation.

(c) The permittee shall maintain and operate the source and control device in accordance with the manufacturer's specifications and in accordance with good air pollution control practices.

(d) The permittee shall adhere to the approved indicator range for the control device so that operation within the range shall provide reasonable assurance of compliance. A departure from the specified indicator range over a specified averaging period shall be defined as an excursion. The approved indicator ranges for the parameters are, as follows or as determined during the initial performance test or any subsequently approved performance tests unless otherwise stated:

(1) Tower Scrubber pH shall be maintained at 10 or greater when a furnace is in the chlorination phase. This operating pH range shall be posted in a visible location in the vicinity of the tower scrubber.

(2) Scrubber pressure drop - greater than 0 " w.g. and less than 4 " w.g. when in operation. This operating pressure drop range shall be posted in a visible location in the vicinity of the scrubber.

(e) The permittee, with prior Departmental approval, may conduct additional performance tests to determine new control device operating ranges.

(f) Response to excursions or exceedances.

(1) Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

(2) Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

SECTION D. Source Level Requirements

Source ID: 7300 Source Name: GRAPHITIZATION & PURIFYING FURNACES (6)

Source Capacity/Throughput:

I. RESTRICTIONS.

Emission Restriction(s).

 # 001 [25 Pa. Code §123.13]

Processes

No person may permit the emission into the outdoor atmosphere of particulate matter from this process in a manner that the concentration of particulate matter in the effluent gas exceeds 0.04 grain per dry standard cubic foot.

 # 002 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131W]

Chlorine emissions from the scrubber shall not exceed 1.0 ppmvd.

Operation Hours Restriction(s).

 # 003 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131W]

Only one of the six graphitization/purification furnaces in this source shall be under power at any time.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

III. MONITORING REQUIREMENTS.

 # 004 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131W]

(a) The permittee shall maintain a magnehelic gauge or similar device to measure the pressure drop across the scrubber. The manometer or similar device shall be mounted in an accessible area and maintained in good operating conditions at all times.

(b) The permittee shall maintain liquid flow alarms. The flow alarm or similar device shall be mounted in an accessible area and maintained in good operating conditions at all times.

(c) The permittee shall maintain temperature alarms. The temperature alarm or similar device shall be mounted in an accessible area and maintained in good operating conditions at all times.

(d) The permittee shall maintain a pH controller. The pH controller or similar device shall be mounted in an accessible area and maintained in good operating conditions at all times.

(e) The permittee shall maintain Hi/Low liquid level alarms. The Hi/Low liquid level alarm or similar device shall be mounted in an accessible area and maintained in good operating conditions at all times.

SECTION D. Source Level Requirements

IV. RECORDKEEPING REQUIREMENTS.

 # 005 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131W]

(a) The permittee shall maintain a record of all preventative maintenance inspections of the scrubbers and associated equipment. These records shall, at a minimum, contain the dates of the inspections, any problems or defects that were detected, the actions taken to correct the problems or defects, and any routine maintenance performed, water flow readings, pressure drop across the tower, pressure drop across the high energy venturi scrubber and the pH of the tower scrubber.

(b) The permittee shall maintain a record of the following from the operational inspections:
1. Liquid flow alarm check
2. Temperature alarm check
3. pH controller check
4. Hi/Low liquid level alarm check

(c) The permittee shall keep a record of the hours of operation for the source(s) as follows:
1. On a monthly basis
2. On a 12-month consecutive period basis

(d) The permittee shall record the following operational data from the control device (these records may be done with strip charts recorders, data acquisition systems, or manual log entries):
1. Pressure drop at the scrubber - at least once during each product run.
2. Tower scrubber pH - every hour when a furnace is in the chlorination phase.

(e) The permittee shall record all excursions and corrective actions taken in response to an excursion and the time elapsed until the corrective actions have been taken.

(f) The permittee shall maintain records of all monitoring downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable). The permittee shall also record the dates, times and durations, probable causes and corrective actions taken for the incidents.

(g) The permittee shall record all inspections, repairs, and maintenance performed on the monitoring equipment.

(h) All required records shall be kept for a period of five (5) years and shall be made available to the Department upon request.

 # 006 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131W]

The permittee shall record the beginning and ending times of the chlorination phase for each furnace. These records shall be maintained for a period of five (5) years.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

 # 007 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From Plan Approval 24-131W]

(a) The permittee shall perform a weekly operational inspection of the control device and all associated equipment.

SECTION D. Source Level Requirements

(b) The permittee shall operate the control device(s) at all times that the source is in operation.

(c) The permittee shall maintain and operate the source and control device in accordance with the manufacturer's specifications and in accordance with good air pollution control practices.

(d) The permittee shall adhere to the approved indicator range for the control device so that operation within the range shall provide reasonable assurance of compliance. A departure from the specified indicator range over a specified averaging period shall be defined as an excursion. The approved indicator ranges for the parameters are, as follows or as determined during the initial performance test or any subsequently approved performance tests unless otherwise stated:

1. Tower Scrubber pH shall be maintained at 10 or greater when a furnace is in the chlorination phase. This operating pH range shall be posted in a visible location in the vicinity of the tower scurbber.
2. Scrubber pressure drop - greater than 0 " w.g. and less than 4 " w.g. when in operation. This operating pressure drop range shall be posted in a visible location in the vicinity of the scrubber.

[The permittee, with prior Departmental approval, may conduct additional performance tests to determine a new control device operating ranges.]

(e) Response to excursions or exceedances.

(1) Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

(2) Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

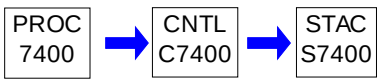
VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

SECTION D. Source Level Requirements

Source ID: 7400 Source Name: 12 GRAPHITIZATION & PURIFYING FURNACES

Source Capacity/Throughput: 6,000.000 Lbs/HR



I. RESTRICTIONS.

Emission Restriction(s).

 # 001 [25 Pa. Code §123.13]

Processes

No person may permit the emission into the outdoor atmosphere of particulate matter from this process in a manner that the concentration of particulate matter in the effluent gas exceeds 0.04 grain per dry standard cubic foot.

 # 002 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From plan approval 24-00131X, Section D Source 7400 Condition #002]

Chlorine emissions from the scrubber shall not exceed 1.0 PPMVD.

Operation Hours Restriction(s).

 # 003 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From plan approval 24-00131X, Section D Source 7400 Condition #003]

a) Only two of the twelve graphitization/purification furnaces in this source shall be under power at any time.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

III. MONITORING REQUIREMENTS.

 # 004 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From plan approval 24-00131X, Section D Source 7400 Condition #004]

(a) The permittee shall maintain a magnehelic gauge or similar device to measure the pressure drop across the scrubber. The manometer or similar device shall be mounted in an accessible area and maintained in good operating conditions at all times.

(b) The permittee shall maintain liquid flow alarms. The flow alarm or similar device shall be mounted in an accessible area and maintained in good operating conditions at all times.

(c) The permittee shall maintain temperature alarms. The temperature alarm or similar device shall be mounted in an accessible area and maintained in good operating conditions at all times.

(d) The permittee shall maintain a pH controller. The pH controller or similar device shall be mounted in an accessible area and maintained in good operating conditions at all times.

(e) The permittee shall maintain Hi/Low liquid level alarms. The Hi/Low liquid level alarm or similar device shall be mounted

SECTION D. Source Level Requirements

in an accessible area and maintained in good operating conditions at all times.

IV. RECORDKEEPING REQUIREMENTS.

 # 005 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From plan approval 24-00131X, Section D Source 7400 Condition #005]

a) The permittee shall maintain a record of all preventative maintenance inspections of the scrubbers and associated equipment. These records shall, at a minimum, contain the dates of the inspections, any problems or defects that were detected, the actions taken to correct the problems or defects, and any routine maintenance performed, water flow readings, pressure drop across the tower, pressure drop across the high energy venturi scrubber and the pH of the tower scrubber.

(b) The permittee shall maintain a record of the following from the operational inspections:
1. Liquid flow alarm check
2. Temperature alarm check
3. pH controller check
4. Hi/Low liquid level alarm check

(c) The permittee shall keep a record of the hours of operation for the source(s) as follows:
1. On a monthly basis
2. On a 12-month consecutive period basis

(d) The permittee shall record the following operational data from the control device (these records may be done with strip charts recorders, data acquisition systems, or manual log entries):
1. Pressure drop at the scrubber - at least once during each product run.
2. Tower scrubber pH - every hour when a furnace is in the chlorination phase.

(e) The permittee shall record all excursions and corrective actions taken in response to an excursion and the time elapsed until the corrective actions have been taken.

(f) The permittee shall maintain records of all monitoring downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable). The permittee shall also record the dates, times and durations, probable causes and corrective actions taken for the incidents.

(g) The permittee shall record all inspections, repairs, and maintenance performed on the monitoring equipment.

(h) All required shall be kept for a period of five (5) years and shall be made available to the Department upon request.

 # 006 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From plan approval 24-00131X, Section D Source 7400 Condition #006]

The permittee shall record the beginning and ending times of the chlorination phase for each furnace.
These records shall be maintained for a period of five (5) years.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

SECTION D. Source Level Requirements

VI. WORK PRACTICE REQUIREMENTS.

 # 007 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From plan approval 24-00131X, Section D Source 7400 Condition #007]

(a) The permittee shall perform a weekly operational inspection of the control device and all associated equipment.

(b) The permittee shall operate the control device(s) at all times that the source is in operation.

(c) The permittee shall maintain and operate the source and control device in accordance with the manufacturer's specifications and in accordance with good air pollution control practices.

(d) The permittee shall adhere to the approved indicator range for the control device so that operation within the range shall provide reasonable assurance of compliance. A departure from the specified indicator range over a specified averaging period shall be defined as an excursion. The approved indicator ranges for the parameters are, as follows or as determined during the initial performance test or any subsequently approved performance tests unless otherwise stated:

1. Tower Scrubber pH shall be maintained at 10 or greater when a furnace is in the chlorination phase. This operating pH range shall be posted in a visible location in the vicinity of the tower scurbber.

2. Scrubber pressure drop - greater than 0 " w.g. and less than 4 " w.g. when in operation. This operating pressure drop range shall be posted in a visible location in the vicinity of the scrubber.
The permittee, with prior Departmental approval, may conduct additional performance tests to determine a new control device operating ranges.

(e) Response to excursions or exceedances.

(1) Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

(2) Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

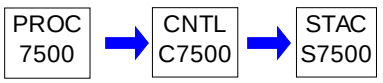
VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

SECTION D. Source Level Requirements

Source ID: 7500 Source Name: 6 GRAPHITIZATION & PURIFYING FURNACES

Source Capacity/Throughput: 6,000.000 Lbs/HR



I. RESTRICTIONS.

Emission Restriction(s).

 # 001 [25 Pa. Code §123.13]

Processes

No person may permit the emission into the outdoor atmosphere of particulate matter from this process in a manner that the concentration of particulate matter in the effluent gas exceeds 0.04 grain per dry standard cubic foot.

 # 002 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From plan approval 24-00131X, Section D Source 7500 Condition #002]

Chlorine emissions from the scrubber shall not exceed 1.0 ppmvd.

Operation Hours Restriction(s).

 # 003 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From plan approval 24-00131X, Section D Source 7500 Condition #003]

a) Only one of the six graphitization/purification furnaces in this source shall be under power at any time.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

III. MONITORING REQUIREMENTS.

 # 004 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From plan approval 24-00131X, Section D Source 7500 Condition #004]

(a) The permittee shall maintain a magnehelic gauge or similar device to measure the pressure drop across the scrubber. The manometer or similar device shall be mounted in an accessible area and maintained in good operating conditions at all times.

(b) The permittee shall maintain liquid flow alarms. The flow alarm or similar device shall be mounted in an accessible area and maintained in good operating conditions at all times.

(c) The permittee shall maintain temperature alarms. The temperature alarm or similar device shall be mounted in an accessible area and maintained in good operating conditions at all times.

(d) The permittee shall maintain a pH controller. The pH controller or similar device shall be mounted in an accessible area and maintained in good operating conditions at all times.

(e) The permittee shall maintain Hi/Low liquid level alarms. The Hi/Low liquid level alarm or similar device shall be mounted in an accessible area and maintained in good operating conditions at all times.

SECTION D. Source Level Requirements

IV. RECORDKEEPING REQUIREMENTS.

 # 005 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From plan approval 24-00131X, Section D Source 7500 Condition #005]

(a) The permittee shall maintain a record of all preventative maintenance inspections of the scrubbers and associated equipment. These records shall, at a minimum, contain the dates of the inspections, any problems or defects that were detected, the actions taken to correct the problems or defects, and any routine maintenance performed, water flow readings, pressure drop across the tower, pressure drop across the high energy venturi scrubber and the pH of the tower scrubber.

(b) The permittee shall maintain a record of the following from the operational inspections:
1. Liquid flow alarm check
2. Temperature alarm check
3. pH controller check
4. Hi/Low liquid level alarm check

(c) The permittee shall keep a record of the hours of operation for the source(s) as follows:
1. On a monthly basis
2. On a 12-month consecutive period basis

(d) The permittee shall record the following operational data from the control device (these records may be done with strip charts recorders, data acquisition systems, or manual log entries):
1. Pressure drop at the scrubber - at least once during each product run.
2. Tower scrubber pH - every hour when a furnace is in the chlorination phase.

(e) The permittee shall record all excursions and corrective actions taken in response to an excursion and the time elapsed until the corrective actions have been taken.

(f) The permittee shall maintain records of all monitoring downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable). The permittee shall also record the dates, times and durations, probable causes and corrective actions taken for the incidents.

(g) The permittee shall record all inspections, repairs, and maintenance performed on the monitoring equipment.

(h) All required records shall be kept for a period of five (5) years and shall be made available to the Department upon request.

 # 006 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From plan approval 24-00131X, Section D Source 7500 Condition #006]

The permittee shall record the beginning and ending times of the chlorination phase for each furnace.
These records shall be maintained for a period of five (5) years.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

 # 007 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[From plan approval 24-00131X, Section D Source 7500 Condition #007]

(a) The permittee shall perform a weekly operational inspection of the control device and all associated equipment.

SECTION D. Source Level Requirements

(b) The permittee shall operate the control device(s) at all times that the source is in operation.

(c) The permittee shall maintain and operate the source and control device in accordance with the manufacturer's specifications and in accordance with good air pollution control practices.

(d) The permittee shall adhere to the approved indicator range for the control device so that operation within the range shall provide reasonable assurance of compliance. A departure from the specified indicator range over a specified averaging period shall be defined as an excursion. The approved indicator ranges for the parameters are, as follows or as determined during the initial performance test or any subsequently approved performance tests unless otherwise stated:

1. Tower Scrubber pH shall be maintained at 10 or greater when a furnace is in the chlorination phase. This operating pH range shall be posted in a visible location in the vicinity of the tower scurbber.

2. Scrubber pressure drop - greater than 0 " w.g. and less than 4 " w.g. when in operation. This operating pressure drop range shall be posted in a visible location in the vicinity of the scrubber.

The permittee, with prior Departmental approval, may conduct additional performance tests to determine a new control device operating ranges.

(e) Response to excursions or exceedances.

(1) Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

(2) Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

SECTION E. Source Group Restrictions.

Group Name: 1 SCRUBBER REQ PA 24-131O

Group Description: This source group includes the requirements for the new scrubbers from PA 24-131O.

Sources included in this group

ID	Name
7107	CVD REACTORS 9 AND 10
7108	CVD REACTORS 11 AND 12
7109	CVD REACTORS 13 AND 14

I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

III. MONITORING REQUIREMENTS.

 # 001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Plan Approval 24-131O]

(a) The permittee shall maintain a manometer or similar device to measure the pressure drop at the reactor. The manometer or similar device shall be mounted in an accessible area and maintained in good operating conditions at all times.

(b) The permittee shall maintain a makeup water flow gauge. The flow gauge or similar device shall be mounted in an accessible area and maintained in good operating conditions at all times.

IV. RECORDKEEPING REQUIREMENTS.

 # 002 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Plan Approval 24-131O]

(a) The permittee shall maintain a record of all preventative maintenance inspections of the control device. These records shall, at a minimum, contain the dates of the inspections, any problems or defects, the actions taken to correct the problems or defects, and any routine maintenance performed, water flow readings and pressure drop.

(b) The permittee shall maintain a record of the following from the operational inspections:

1. Low flow alarm check

(c) The permittee shall keep a record of the hours of operation for each reactor as follows:

1. On a monthly basis
2. On a 12-month consecutive period basis

(d) The permittee shall record the following operational data from the control device (these records may be done with strip charts recorders, data acquisition systems, or manual log entries):

1. Pressure drop at the reactor - at least once during each product run.

2. Scrubber makeup liquid flow rate - at least once during each product run.

(e) The permittee shall record all excursions and corrective actions taken in response to an excursion and the time elapsed until the corrective actions have been taken.

SECTION E. Source Group Restrictions.

(f) The permittee shall maintain records of all monitoring downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable). The permittee shall also record the dates, times and durations, probable causes and corrective actions taken for the incidents.

(g) The permittee shall record all inspections, repairs, and maintenance performed on the monitoring equipment.

(h) All required records shall be kept for a period of five (5) years and shall be made available to the Department upon request.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

 # 003 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Plan Approval 24-131O]

(a) The permittee shall perform a weekly operational inspection of the control device.

(b) The permittee shall operate the control device at all times that the source is in operation.

(c) The permittee shall maintain and operate the source and control device in accordance with the manufacturer's specifications and in accordance with good air pollution control practices.

(d) The permittee shall adhere to the approved indicator range for the control device so that operation within the range shall provide reasonable assurance of compliance. A departure from the specified indicator range over a specified averaging period shall be defined as an excursion. The approved indicator ranges for the parameters are, as follows or as determined during the initial performance test or any subsequently approved performance tests unless otherwise stated:

1. Scrubber inlet water flow rate - minimum of 20 gallons/hour.

2. Scrubber pressure drop - 0.005 to 0.40 inches of water column.

The permittee, with prior Departmental approval, may conduct additional performance tests to determine a new control device operating ranges.

(e) Response to excursions or exceedances.

(1) Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

(2) Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

SECTION E. Source Group Restrictions.

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

SECTION E. Source Group Restrictions.

Group Name: 2 SCRUBBER REQ PA 24-131Q

Group Description: This source group includes requirements for the new scrubbers under PA 24-131Q.

Sources included in this group

ID	Name
103B	CVD REACTORS 3 AND 4
7102	CVD REACTOR 5 AND 5B

I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

III. MONITORING REQUIREMENTS.

 # 001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Plan Approval 24-131Q]

(a) The permittee shall maintain a manometer or similar device to measure the pressure drop at the reactor. The manometer or similar device shall be mounted in an accessible area and maintained in good operating conditions at all times.

(b) The permittee shall maintain a makeup water flow gauge. The flow gauge or similar device shall be mounted in an accessible area and maintained in good operating conditions at all times.

IV. RECORDKEEPING REQUIREMENTS.

 # 002 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Plan Approval 24-131Q]

(a) The permittee shall maintain a record of all preventative maintenance inspections of the control device. These records shall, at a minimum, contain the dates of the inspections, any problems or defects, the actions taken to correct the problems or defects, and any routine maintenance performed, water flow readings and pressure drop.

(b) The permittee shall maintain a record of the following from the operational inspections:

1. Low flow alarm check

(c) The permittee shall keep a record of the hours of operation for each reactor as follows:

1. On a monthly basis
2. On a 12-month consecutive period basis

(d) The permittee shall record the following operational data from the control device (these records may be done with strip charts recorders, data acquisition systems, or manual log entries):

1. Pressure drop at the reactor - at least once during each product run.

2. Scrubber makeup liquid flow rate - at least once during each product run.

(e) The permittee shall record all excursions and corrective actions taken in response to an excursion and the time elapsed until the corrective actions have been taken.

(f) The permittee shall maintain records of all monitoring downtime incidents (other than downtime associated with zero

SECTION E. Source Group Restrictions.

and span or other daily calibration checks, if applicable). The permittee shall also record the dates, times and durations, probable causes and corrective actions taken for the incidents.

(g) The permittee shall record all inspections, repairs, and maintenance performed on the monitoring equipment.

(h) All required records shall be kept for a period of five (5) years and shall be made available to the Department upon request.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

 # 003 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Plan Approval 24-131Q]

(a) The permittee shall perform a weekly operational inspection of the control device.

(b) The permittee shall operate the control device at all times that the source is in operation.

(c) The permittee shall maintain and operate the source and control device in accordance with the manufacturer's specifications and in accordance with good air pollution control practices.

(d) The permittee shall adhere to the approved indicator range for the control device so that operation within the range shall provide reasonable assurance of compliance. A departure from the specified indicator range over a specified averaging period shall be defined as an excursion. The approved indicator ranges for the parameters are, as follows or as determined during the initial performance test or any subsequently approved performance tests unless otherwise stated:

1. Scrubber inlet water flow rate - minimum of 20 gallons/hour.

2. Scrubber pressure drop - 0.005 to 0.40 inches of water column.

The permittee, with prior Departmental approval, may conduct additional performance tests to determine a new control device operating ranges.

(e) Response to excursions or exceedances.

(1) Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

(2) Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

SECTION E. Source Group Restrictions.

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

SECTION E. Source Group Restrictions.

Group Name: 3 REACTOR SOURCES PA 24-131O

Group Description: This source group includes applicable emission limits from PA 24-131O

Sources included in this group

ID	Name
7107	CVD REACTORS 9 AND 10
7108	CVD REACTORS 11 AND 12
7109	CVD REACTORS 13 AND 14

I. RESTRICTIONS.

Emission Restriction(s).

 # 001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

a) Total particulate matter emissions from the source, as measured from the scrubber stack, shall not exceed 0.04 grains/dscf.

b) HCl emissions from the source, as measured from the scrubber stack, shall not exceed 0.02 lbs/hour, averaged over the reaction period (Deposition Cycle).

Operation Hours Restriction(s).

 # 002 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Plan Approval 24-131O]
(a) The permittee shall limit the hours of operation for each reactor to less than 2920 hours per year based on a 12-month consecutive period.

[Plan Approval 24-131O]
(b) The permittee shall limit the operation of both reactors to one reactor being operational at a time.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

SECTION E. Source Group Restrictions.

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

SECTION E. Source Group Restrictions.

Group Name: 4 REACTOR SOURCES PA 24-131Q

Group Description: This source group includes applicable emission limits from PA 24-131Q

Sources included in this group

ID	Name
103B	CVD REACTORS 3 AND 4
7102	CVD REACTOR 5 AND 5B

I. RESTRICTIONS.

Emission Restriction(s).

 # 001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Plan Approval 24-131Q]

a) Total particulate matter emissions from the source, as measured from the scrubber stack, shall not exceed 0.04 grains/dscf.

b) HCl emissions from the source, as measured from the scrubber stack, shall not exceed 0.02 lbs/hour, averaged over the reaction period (Deposition Cycle).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

SECTION E. Source Group Restrictions.

Group Name: 5 PM FILTERS

Group Description: Sources Controlled By Baghouses For PM

Sources included in this group

ID	Name
110	MACHINING OPR (BLDG 600)
115	MAINTENANCE SHOP (BLDG 602)

I. RESTRICTIONS.

Emission Restriction(s).

 # 001 [25 Pa. Code §123.13]

Processes

No person may permit the emission into the outdoor atmosphere of particulate matter from this source in a manner that the concentration of particulate matter in the effluent gas exceeds 0.04 grain per dry standard cubic foot.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

 # 002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

a) The permittee shall maintain a log of all preventative maintenance inspections performed on the control device. The inspection logs shall contain, at a minumum, the dates of the inspections, any potential problems or defects that were detected, the steps taken to correct them, and the measured pressure drop across each control device.

b) The inspection logs shall be maintained at the facility for a period of five (5) years and shall be made available to the Department upon request.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

 # 003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

In order to assure compliance with the particulate matter concentration limits for this source, the permittee shall perform the following:

(1) The permittee shall maintain and operate the source and control device in accordance with the manufacturer's specifications.

(2) The permittee shall perform weekly preventative maintenance inspections of the control device and associated equipment. A check of the pressure drop across the collector shall also be made.

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

SECTION E. Source Group Restrictions.

Group Name: 6 SOURCE TESTING

Group Description: Standard Source Testing Requirements

Sources included in this group

ID	Name
103	CHEMICAL VAPOR DEPOSITION REACTORS 1 AND 2
7111	CVD REACTOR 16
7112	CVD REACTOR 17
7113	V.O.G. FURNACE 2
7114	CVD REACTORS 18 AND 19

I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

II. TESTING REQUIREMENTS.

 # 001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Source test submittals shall be as follows:

(1) At least 90 calendar days prior to commencing an emissions testing program, a test protocol shall be submitted to the Department for review and approval in accordance with paragraph (7) of this condition. The test protocol shall meet all applicable requirements specified in the most current version of the Department's Source Testing Manual.

(2) At least 15 calendar days prior to commencing an emission testing program, notification as to the date and time of testing shall be given to the appropriate Regional Office. Notification shall also be sent to the Division of Source Testing and Monitoring. Notification shall not be made without prior receipt of a protocol acceptance letter from the Department.(Source Testing Section).

(3) A complete test report shall be submitted to the Department no later than 60 calendar days after completion of the onsite testing portion of an emission test program.

(4) A complete test report shall include a summary of the emission results on the first page of the report indicating if each pollutant measured is within permitted limits and a statement of compliance or noncompliance with all applicable permit conditions. The summary results will include, at a minimum, the following information:

(A) A statement that the owner or operator has reviewed the report from the emissions testing body and agrees with the findings.

(B) Permit number(s) and condition(s) which are the basis for the evaluation.

(C) Summary of results with respect to each applicable permit condition.

(D) Statement of compliance or non-compliance with each applicable permit condition.

(5) All submittals shall meet all applicable requirements specified in the most current version of the Department's Source Testing Manual.

(6) All testing shall be performed in accordance with the provisions of Chapter 139 of the Rules and Regulations of the Department of Environmental Protection.

(7) The Department requires one electronic copy of all source test submissions (protocols and reports) to be sent to both the appropriate Regional Office and the PSIMS Administrator in Central Office (email addresses are provided below). Do not send submissions to anyone else, except the U.S. EPA, unless specifically directed to do so. To minimize the potential for rescheduling of the test, all protocols must be received at least 90 days prior to testing. Test reports must be received no later than 60 days after the completion of testing, unless a more stringent regulatory requirement applies. Any questions or concerns about source testing submissions can be sent to RA-EPstacktesting@pa.gov and the PSIMS Administrator will

SECTION E. Source Group Restrictions.

address them.

Electronic copies of Protocols and Reports shall be emailed to the following:

Central Office
RA-EPstacktesting@pa.gov

Northwest Region
RA-EPNWstacktesting@pa.gov

Notifications and Supplemental Information shall be submitted to the following:
OnBase Submittal
http://www.dep.pa.gov/DataandTools/Pages/Application-Form-Upload.aspx

(8) Actions Related to Noncompliance Demonstrated by a Stack Test:

(a) If the results of a stack test, performed as required by this operating permit, exceed the level specified in any condition of this approval, the Permittee shall take appropriate corrective actions. Within 30 days of the Permittee receiving the stack test results, a written description of the corrective actions shall be submitted to the Department. The Permittee shall take appropriate action to minimize emissions from the affected facility while the corrective actions are being implemented. The Department shall notify the Permittee within 30 days, if the corrective actions taken are deficient. Within 30 days of receipt of the notice of deficiency, the Permittee shall submit a description of additional corrective actions to the Department. The Department reserves the authority to use enforcement activities to resolve noncompliant stack tests.

(b) If the results of the required stack test exceed any limit defined in this operating permit, the test was not performed in accordance with the stack test protocol or the source and/or air cleaning device was not operated in accordance with the operating permit, then another stack test shall be performed to determine compliance. Within 120 days of the Permittee receiving the original stack test results, a retest shall be performed. The Department may extend the retesting deadline if the Permittee demonstrates, to the Department's satisfaction, that retesting within 120 days is not practicable. Failure of the second test to demonstrate compliance with the limits in the operating permit, not performing the test in accordance with the stack test protocol or not operating the source and/or air cleaning device in accordance with the operating permit may be grounds for immediate revocation of the operating permit to operate the affected source.

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

SECTION E. Source Group Restrictions.

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

SECTION E. Source Group Restrictions.

Group Name: 7 SUBPART JJJJ

Group Description: 40 CFR 60 Subpart JJJJ NSPS for Stationary Spark Ignition Internal Combustion Engines

Sources included in this group

ID	Name
160	EMERGENCY POWER GENERATOR (600 OFFICE)

I. RESTRICTIONS.

Emission Restriction(s).

 # 001 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4233]

Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

What emission standards must I meet if I am an owner or operator of a stationary SI internal combustion engine?

(a) - (c) [Do not apply]

(d) Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards for field testing in 40 CFR 1048.101(c) for their non-emergency stationary SI ICE and with the emission standards in Table 1 to this subpart for their emergency stationary SI ICE. Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) manufactured prior to January 1, 2011, that were certified to the standards in Table 1 to this subpart applicable to engines with a maximum engine power greater than or equal to 100 HP and less than 500 HP, may optionally choose to meet those standards.

[From Table 1 to Subpart JJJJ]

			Emission standards* g/HP-hr		
Engine type and fuel	Maximum engine power	Manufacture date	NOx	CO	VOC**
Emergency	25<HP<130	1/1/2009	10***	387	N/A

*[Owners and operators of stationary non-certified SI engines may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15 percent O2.]

**[For purposes of this subpart, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.]

***[The emission standards applicable to emergency engines between 25 HP and 130 HP are in terms of NOX + HC.]

[76 FR 37975, June 28, 2011]

(e) - (h) [Do not apply]

[73 FR 3591, Jan. 18, 2008, as amended at 76 FR 37973, June 28, 2011]

Operation Hours Restriction(s).

 # 002 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4243]

Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

What are my compliance requirements if I am an owner or operator of a stationary SI internal combustion engine?

[From 40 CFR 60.4243(d):]

(d) If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (d)(1) through (3) of this section. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (d)(1) through (3), is prohibited. If you do not operate the engine according to the requirements in paragraphs (d)(1) through (3), the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary ICE in emergency situations.

SECTION E. Source Group Restrictions.

(2) You may operate your emergency stationary ICE for the purpose specified in paragraph (d)(2)(i) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (d)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (d)(2).

(i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(ii) - (iii) [Reserved]

(3)Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in paragraph (d)(2) of this section. Except as provided in paragraph (d)(3)(i) of this section, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(i) [Does not apply]

(ii) [Reserved]

[86 FR 34362, June 29, 2021; 87 FR 48606, Aug. 10, 2022]

Throughput Restriction(s).

 # 003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4243]

Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

What are my compliance requirements if I am an owner or operator of a stationary SI internal combustion engine?

[From 40 CFR 60.4243(e):]

(e) Owners and operators of stationary SI natural gas fired engines may operate their engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the owners and operators are required to conduct a performance test to demonstrate compliance with the emission standards of §60.4233.

[86 FR 34362, June 29, 2021; 87 FR 48606, Aug. 10, 2022]

II. TESTING REQUIREMENTS.

 # 004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4243]

Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

What are my compliance requirements if I am an owner or operator of a stationary SI internal combustion engine?

(a) If you are an owner or operator of a stationary SI internal combustion engine that is manufactured after July 1, 2008, ...[Omitted text does not apply]. In addition, you must meet one of the requirements specified in (a)(1) and (2) of this section.

(1) If you operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, you must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required if you are an owner or operator. You must also meet the requirements as specified in 40 CFR part 1068, subparts A through D, as they apply to you. If you adjust engine settings according to and consistent with the manufacturer's instructions, your stationary SI internal combustion engine will not be considered out of compliance.

(2) If you do not operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, your engine will be considered a non-certified engine, and you

SECTION E. Source Group Restrictions.

must demonstrate compliance according to (a)(2)(i) through (iii) of this section, as appropriate.

(i) If you are an owner or operator of a stationary SI internal combustion engine less than 100 HP, you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions, but no performance testing is required if you are an owner or operator.

(ii) - (iii) [Do not apply]

(b) If you are an owner or operator of a stationary SI internal combustion engine and must comply with the emission standards specified in §60.4233(d) or (e), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) and (2) of this section.

(1) Purchasing an engine certified according to procedures specified in this subpart, for the same model year and demonstrating compliance according to one of the methods specified in paragraph (a) of this section.

(2) [Does not apply]

(c) [Does not apply]

(d) - (e) [Printed under Restrictions in this section of permit.]

(f) - (i) [Do not apply]

[86 FR 34362, June 29, 2021; 87 FR 48606, Aug. 10, 2022]

III. MONITORING REQUIREMENTS.

 # 005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4237]

Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

What are the monitoring requirements if I am an owner or operator of an emergency stationary SI internal combustion engine?

(a) - (b) [Do not apply]

(c) If you are an owner or operator of an emergency stationary SI internal combustion engine that is less than 130 HP, was built on or after July 1, 2008, and does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter upon startup of your emergency engine.

IV. RECORDKEEPING REQUIREMENTS.

 # 006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4245]

Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary SI internal combustion engine?

Owners or operators of stationary SI ICE must meet the following notification, reporting and recordkeeping requirements.

(a) Owners and operators of all stationary SI ICE must keep records of the information in paragraphs (a)(1) through (4) of this section.

(1) All notifications submitted to comply with this subpart and all documentation supporting any notification.

(2) Maintenance conducted on the engine.

(3) If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 1048, 1054, and 1060, as applicable.

(4) If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards.

SECTION E. Source Group Restrictions.

(b) [Omitted text does not apply] ...For all stationary SI emergency ICE greater than 25 HP and less than 130 HP manufactured on or after July 1, 2008, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator 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.

(c) - (e) [Do not apply]

[86 FR 34362, June 29, 2021; 87 FR 48606, Aug. 10, 2022]

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

 # 007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4234]

Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

How long must I meet the emission standards if I am an owner or operator of a stationary SI internal combustion engine?

Owners and operators of stationary SI ICE must operate and maintain stationary SI ICE that achieve the emission standards as required in §60.4233 over the entire life of the engine.

VII. ADDITIONAL REQUIREMENTS.

 # 008 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4230]

Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

Am I subject to this subpart?

(a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary spark ignition (SI) internal combustion engines (ICE) as specified in paragraphs (a)(1) through (6) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

(1) - (3) [Do not apply]

(4) Owners and operators of stationary SI ICE that commence construction after June 12, 2006, where the stationary SI ICE are manufactured:

(i) - (iii) [Do not apply]

(iv) on or after January 1, 2009, for emergency engines with a maximum engine power greater than 19 KW (25 HP).

(5) [Does not apply]

(6) The provisions of §60.4236 of this subpart are applicable to all owners and operators of stationary SI ICE that commence construction after June 12, 2006.

(b) - (f) [Do not apply]

[86 FR 34360, June 29, 2021]

 # 009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4236]

Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

What is the deadline for importing or installing stationary SI ICE produced in the previous model year?

(a) - (b) [Do not apply]

(c) For emergency stationary SI ICE with a maximum engine power of greater than 19 KW (25 HP), owners and operators may not install engines that do not meet the applicable requirements in §60.4233 after January 1, 2011.

SECTION E. Source Group Restrictions.

(d) - (e) [Do not apply]

 # 010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4246]

Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

What parts of the General Provisions apply to me?

(a) Table 3 to this subpart shows which parts of the General Provisions in §§60.1 through 60.19 apply to you.

(b) [Do not apply]

[Please refer to 40 CFR 60 Subpart JJJJ for Table 3 General Provisions.]

[88 FR 4471, Jan. 24, 2023]

 # 011 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4248]

Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

What definitions apply to this subpart?

[Please refer to 40 CFR 60.4248 for definitions applicable to Subpart JJJJ.]

[86 FR 34363, June 29, 2021; 87 FR 48606, Aug. 10, 2022]

SECTION E. Source Group Restrictions.

Group Name: 8 SUBPART ZZZZ

Group Description: 40 CFR 63 Subpart ZZZZ for Stationary Reciprocating Internal Combustion Engines

Sources included in this group

ID	Name
150	EMERGENCY POWER GENERATOR

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 requiremer

[From 40 CFR 63.6640(f)]

(f) If you own or operate an emergency stationary RICE, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1) through (4) of this section. In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (4), is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (4), the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary RICE in emergency situations.

(2) You may operate your emergency stationary RICE for the purpose specified in paragraph (f)(2)(i) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraphs (f)(3) and (4) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

(i) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.

(ii)-(iii) [Reserved]

(3) [Does not apply]

(4) Emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in paragraph (f)(2) of this section. Except as provided in paragraphs (f)(4)(i) and (ii) of this section, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(i) - (ii) [Do not Apply]

[87 FR 48607, Aug. 10, 2022]

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

SECTION E. Source Group Restrictions.

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?

(a) - (d) [Do not apply]

(e) If you own or operate any of the following stationary RICE, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:

(1) - (2) [Do not apply]

(3) An existing emergency or black start stationary RICE located at an area source of HAP emissions.

(4) - (10) [Do not apply]

(f) If you own or operate [Omitted text does not apply]... an existing emergency stationary RICE located at an area source of HAP emissions, you must install a non-resettable hour meter if one is not already installed.

(g) [Does not apply}

(h) If you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, [Omitted text does not apply].

(i) [Does not apply]

(j) If you own or operate a stationary SI engine that is subject to the work, operation or management practices in items 6, 7, or 8 of Table 2c to this subpart or in items 5, 6, 7, 9, or 11 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

[69 FR page 33506, June 15, 2004, as amended at 73 FR page 3606, Jan. 18, 2008; 75 FR page 9676, Mar. 3, 2010; 75 FR page 51589, Aug. 20, 2010; 78 FR Page 6703, Jan. 30, 2013]

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) If you must comply with the emission and operating limitations, you must keep the records described in paragraphs (a)(1) through (a)(5), (b)(1) through (b)(3) and (c) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in

SECTION E. Source Group Restrictions.

§63.10(b)(2)(xiv).

(2) Records of the occurance and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.

(3) - (4) [Do not apply]

(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with subsection 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

(b) - (c) [Do not apply]

(d) You must keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to you.

[The requirements from Table 6 are listed in the "Work Practice Requirements" section under 40 CFR 63.6640.]

(e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE;

(1) [Does not apply]

(2) An existing stationary emergency RICE.

(3) An existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart.

[The requirements from Table 2d are listed in the "Work Practice Requirements" section under 40 CFR 63.6603.]

(f) If you own or operate any of the stationary RICE in paragraphs (f)(1) through (2) of this section, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator 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. [Non-applicable text omitted]

(1) [Does not apply]

(2) An existing emergency stationary RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines.

[87 FR 48607, Aug. 10, 2022]

 # 004 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6660]

Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

In what form and how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious review according to §63.10(b)(1).

(b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1).

[69 FR 33506, June 15, 2004, as amended at 75 FR 9678, Mar. 3, 2010]

SECTION E. Source Group Restrictions.

V. REPORTING REQUIREMENTS.

 # 005 [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?

(a) [Printed under Work Practice Requirements in this section of permit.]

(b) You must report each instance in which you did not meet each operating limitation in Table 2d to this subpart that apply to you [text omitted does not apply]. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in §63.6650. [Text omitted does not apply]

(c) - (d) [Do not apply]

(e) You must also report each instance in which you did not meet the requirements in Table 8 of this subpart that apply to you. [Omitted tex does not apply]

(f) [Printed under Restrictions in this section of permit.]

[87 FR 48607, Aug. 10, 2022]

VI. WORK PRACTICE REQUIREMENTS.

 # 006 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6603]

Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

What emission limitations, operating limitations, and other requirements must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?

(a) If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart and the operating limitations in Table 2b to this subpart that apply to you.

[From Table 2d]
5. For each emergency stationary SI RICE, [omitted text does not apply] you must meet the following requirement, except during periods of startup...**

a. Change oil and filter every 500 hours of operation or annually, whichever comes first;*
b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

During periods of startup you must 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, after which time the non-startup emission limitations apply.

*[Sources have the option to utilize an oil analysis program as described in §63.6625(j) in order to extend the specified oil change requirements in Table 2d of this subpart.]

**[If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.]

[The requirements of 40 CFR 63.6625(j) are listed in the "Monitoring Requirements" section.]

[78 FR 6709, Jan. 30, 2013]

SECTION E. Source Group Restrictions.

(b) - (f) [Do not apply]

[75 FR 9675, Mar. 3, 2010, as amended at 75 FR 51589, Aug. 20, 2010; 76 FR 12866, Mar. 9, 2011; 78 FR 6701, Jan. 30, 2013]

 # 007 [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) You must be in compliance with the emission limitations, operating limitations, and other requirements in this subpart that apply to you at all times.

(b) At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[75 FR 9675, Mar. 3, 2010, as amended at 78 FR 6702, Jan. 30, 2013]

 # 008 [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?

[From 40 CFR 63.6640(a):]

(a) You must demonstrate continuous compliance with each operating limitation in [text omitted does not apply] Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart.

[The requirements from Table 2d are listed in the "Work Practice Requirements" section under 40 CFR 63.6603.]

[From Item 9 of Table 6]

9. Each existing emergency RICE located at an area source of HAP complying with work practices must demonstrate continuous compliance by:

i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or

ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

[78 FR 6715, Jan. 30, 2013]

[87 FR 48607, Aug. 10, 2022]

VII. ADDITIONAL REQUIREMENTS.

 # 009 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6580]

Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

What is the purpose of subpart ZZZZ?

SECTION E. Source Group Restrictions.

Subpart ZZZZ establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.

[73 FR 3603, Jan. 18, 2008]

 # 010 [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?

You are subject to this subpart if you own or operate a stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand.

(a) A stationary RICE is any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

(b) A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site.

(c) An area source of HAP emissions is a source that is not a major source.

(d) If you are an owner or operator of an area source subject to this subpart, your status as an entity subject to a standard or other requirements under this subpart does not subject you to the obligation to obtain a permit under 40 CFR part 70 or 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart as applicable.

(e) - (f) [Do not apply]

[87 FR 48607, Aug. 10, 2022]

 # 011 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6590]

Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

What parts of my plant does this subpart cover?

This subpart applies to each affected source.

(a) Affected source. An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.

(1) Existing stationary RICE.

(i) - (ii) [Do not apply]

(iii) For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(iv) A change in ownership of an existing stationary RICE does not make that stationary RICE a new or reconstructed stationary RICE.

(2) - (3) [Do not apply]

(b) - (c) [Do not apply]

SECTION E. Source Group Restrictions.

[87 FR 48607, Aug. 10, 2022]

 # 012 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6595]

Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

When do I have to comply with this subpart?

(a) Affected Sources. (1) [Omitted text does not apply] If you have an existing stationary SI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations, operating limitations, and other requirements no later than October 19, 2013.

(2) - (7) [Do not apply]

(b) [Does not apply]

(c) If you own or operate an affected source, you must meet the applicable notification requirements in §63.6645 and in 40 CFR part 63, subpart A.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9675, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010; 78 FR 6701, Jan. 30, 2013]

 # 013 [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?

Table 8 of Subpart ZZZZ shows which parts of the General Provisions in §§63.1 through 63.15 apply to you.

[Please refer to Subpart ZZZZ for Table 8.]

[85 FR 73912, Nov. 19, 2020]

 # 014 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6670]

Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Who implements and enforces this subpart?

(a) This subpart is implemented and enforced by the U.S. EPA, or a delegated authority such as your State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the U.S. EPA) has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out whether this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the Administrator of the U.S. EPA and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are:

(1) Approval of alternatives to the non-opacity emission limitations and operating limitations in §63.6600 under §63.6(g).

(2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90.

(3) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90.

(4) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

(5) Approval of a performance test which was conducted prior to the effective date of the rule, as specified in §63.6610(b).

SECTION E. Source Group Restrictions.

 # 015 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6675]

Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

What definitions apply to this subpart?

[Please refer to 40 CFR 63.6675 for definitions related to Subpart ZZZZ.]

[87 FR 48608, Aug. 10, 2022]

SECTION F. Alternative Operation Requirements.

No Alternative Operations exist for this State Only facility.

SECTION G. Emission Restriction Summary.

Source Id	Source Description

001 MISC NATURAL GAS COMBUSTION SOURCES

Emission Limit			Pollutant
500.000	PPMV		SOX
0.040	gr/DRY FT3		TSP

041 GAS FIRED BOILER 1

Emission Limit			Pollutant
4.000	Lbs/MMBTU		SOX
0.400	Lbs/MMBTU		TSP

103 CHEMICAL VAPOR DEPOSITION REACTORS 1 AND 2

Emission Limit			Pollutant
0.006	Lbs/Hr	Averaged over the reaction period (Deposition Cycle)	Hydrochloric Acid
0.040	gr/DRY FT3		TSP

103B CVD REACTORS 3 AND 4

Emission Limit			Pollutant
0.020	Lbs/Hr	averaged over the reaction period.	Hydrochloric Acid
0.040	gr/DRY FT3		TSP

110 MACHINING OPR (BLDG 600)

Emission Limit			Pollutant
0.040	gr/DRY FT3		TSP

115 MAINTENANCE SHOP (BLDG 602)

Emission Limit			Pollutant
0.040	gr/DRY FT3		TSP

126 SPECIAL IMPREGNATION PROCESS

Emission Limit			Pollutant
0.040	gr/DRY FT3		TSP
25.000	Tons/Yr	12-month rolling total	VOC

150 EMERGENCY POWER GENERATOR

Emission Limit			Pollutant
500.000	PPMV		SOX
0.040	gr/DRY FT3		TSP

160 EMERGENCY POWER GENERATOR (600 OFFICE)

Emission Limit			Pollutant
387.000	gr/HP-Hr		CO
10.000	gr/HP-Hr		NOx+NMHC
500.000	PPMV		SOX
0.040	gr/DRY FT3		TSP

SECTION G. Emission Restriction Summary.

Source Id	Source Description

7000 PURIFICATION FURNACES (10)

Emission Limit			Pollutant
1.000	PPMV		Chlorine
0.040	gr/DRY FT3		TSP

7100 (12) GRAPHITE PURIFICATION FURNACES

Emission Limit			Pollutant
1.000	PPMV		Chlorine
0.040	gr/DRY FT3		TSP

7101 V.O.G. FURNACE 1

Emission Limit			Pollutant
1.000	PPMV		Chlorine
1.000	PPMV		Hydrogen Fluoride
0.040	gr/DRY FT3		TSP

7102 CVD REACTOR 5 AND 5B

Emission Limit			Pollutant
0.020	Lbs/Hr	averaged over the reaction period.	Hydrochloric Acid
0.040	gr/DRY FT3		TSP

7103 CVD REACTOR 6 & 7

Emission Limit			Pollutant
0.020	Lbs/Hr	averaged over reaction period	Hydrochloric Acid
0.040	gr/DRY FT3		TSP

7104 CVD REACTOR 8

Emission Limit			Pollutant
0.020	Lbs/Hr	averaged over reaction period	Hydrochloric Acid
0.040	gr/DRY FT3		TSP

7107 CVD REACTORS 9 AND 10

Emission Limit			Pollutant
0.020	Lbs/Hr	averaged over the reaction period.	Hydrochloric Acid
0.040	gr/DRY FT3		PM10

7108 CVD REACTORS 11 AND 12

Emission Limit			Pollutant
0.020	Lbs/Hr	averaged over the reaction period.	Hydrochloric Acid
0.040	gr/DRY FT3		PM10

7109 CVD REACTORS 13 AND 14

Emission Limit			Pollutant
0.020	Lbs/Hr	averaged over the reaction period.	Hydrochloric Acid
0.040	gr/DRY FT3		PM10

SECTION G. Emission Restriction Summary.

Source Id	Source Description

7111 CVD REACTOR 16

Emission Limit			Pollutant
0.020	Lbs/Hr	averaged over the reaction period	Hydrochloric Acid
0.040	gr/DRY FT3		TSP

7112 CVD REACTOR 17

Emission Limit			Pollutant
0.020	Lbs/Hr		Hydrochloric Acid
0.040	gr/DRY FT3		TSP

7113 V.O.G. FURNACE 2

Emission Limit			Pollutant
1.000	PPMV		Chlorine
1.000	PPMV		Hydrogen Fluoride
0.040	gr/DRY FT3	Filter and Condensable	TSP

7114 CVD REACTORS 18 AND 19

Emission Limit			Pollutant
0.020	Lbs/Hr		Hydrochloric Acid
0.040	gr/DRY FT3		TSP

7200 GRAPHITIZATION & PURIFYING FURNACES (5)

Emission Limit			Pollutant
1.000	PPMV		Chlorine
0.040	gr/DRY FT3		TSP

7300 GRAPHITIZATION & PURIFYING FURNACES (6)

Emission Limit			Pollutant
1.000	PPMV	dry basis	Chlorine
0.040	gr/DRY FT3		TSP

7400 12 GRAPHITIZATION & PURIFYING FURNACES

Emission Limit			Pollutant
1.000	PPMV	Dry Basis	Chlorine
0.040	gr/DRY FT3	BAT	TSP

7500 6 GRAPHITIZATION & PURIFYING FURNACES

Emission Limit			Pollutant
1.000	PPMV	Dry Basis	Chlorine
0.040	gr/DRY FT3		TSP

Site Emission Restriction Summary

Emission Limit	Pollutant

SECTION G. Emission Restriction Summary.

SECTION H. Miscellaneous.

(a) The following is a list of activities for which there are no applicable emission limitations, testing, recordkeeping, or reporting requirements:

- Research and Development Area.
- Misc. Mixing and Molding Operations with no external venting.
- Facility maintenance.
- Propane Storage Tanks.
- Portable gasoline storage tank (<500 gallon).
- Specialty Mixing with no external venting (very infrequent use).
- Hot Graphite Mixing with no external venting (very infrequent use).
- RTV Gluing of rubber pads to graphite brushes.
- Parts Washer/Degreaser using exempt low VOC cleaner.

(b) This permit was amended on June 20, 2000, to incorporate a new source and control device installed under Plan Approval Number: 24131B. The new source consists of Twelve (12) Graphite Purification Furnaces (Source ID: 7100) and a new Scrubber System (C7100).

(c) This Permit is being Administratively Amended to incorporate changes to control equipment brought about through Plan Approval Number 24-131C.

(d) This permit is being re-issued for a new 5 year term and is also being administratively amended to incorporate Plan Approval Numbers 24-0131D, 24-0131F, and 24-0131G.

(e) This permit was Administratively Amended to incorporate Plan Approval Numbers 24-131H and 24-131I.

The following notes are from Plan Approval 24-131I and 24-131K:

a) The Capacity/Hour numbers listed on Page 4 and provided in Section D of this permit for individual sources are for informational purposes only and are not to be considered enforceable limits. Enforceable emission limits are listed in the Restriction section for each source. They are also summarized for informational purposes only in Section F.

b) Source ID: Department assigned ID number for the source
Source Name: Department assigned name for the source
Capacity: The maximum capacity for the source (not a limit)
Fuel/Material: The fuel/material assigned to SCC for the source

Schematics:
FML: Fuel material location
Comb: Combustion source
Proc: Process
CD: Control device
EP: Emission point
Pollutant:
TSP: Total Suspended Particulate

c) Control device C7000 (Fume and PM Scrubber) for Source 7000 consists of the following:

1. Tower
2. Venturi
3. High Energy Venturi

d) Control device C7100 (Fume and PM Scrubber) for Source 7100 consists of the following:

1. Tower
2. Venturi
3. High Energy Venturi

e) Control device C7101 (Fume and PM Scrubber) for Source 7101 consists of the following:

SECTION H. Miscellaneous.

1. Tower
2. Venturi
3. High Energy Venturi

f) Plan Approval 24-131K superseded Plan Approval 24-131J. The conditions of Plan Approval 24-131K were administratively amended into the Operating Permit on March 12, 2008

(f) For the administrative amendment issued on March 16, 2011, the following sources were removed from this operating permit and transferred to E Carbon America, LLC.

Source ID	Source Name
042	Gas Fired Boiler #2
100	Black Mix Mixers 8 & 9
1000	Slug Press
102	Storage Silos (4)
120	Raymond Roller Mill
125	Carbon Baking Kilns
126	Special Impregnation Process (Mix tank, Rinse Tank, 3 Autoclaves, 3 Curing Ovens)*
132	Carbon Paste Mixer
5300	Hammermills 1 & 2
5304	Hammermill 3
5337	Platform Mixers (4)
6989A	Blending Operation 1
6990	Blending Operation 2
7110	Sand Recycling System

*SGL Carbon retains sufficient equipment to continue operating their own Special Impregnation Process which includes 3 Autoclaves and 3 Curing Ovens. This equipment continues to be listed under Source ID: 126.

This administrative amendment also incorporated Plan Approval Number 24-131M which authorized the installation of Source ID: 7104 - CVD Reactor 8. All applicable requirements from that plan approval have been merged into this operating permit.

(g) This permit was administratively amended on April 13, 2012 to incorporate the conditions of Plan Approval 24-131N.

(h) This permit was administratively amended on April 5, 2013 to incorporate the conditions of Plan Approval 24-131O.

(i) During the 2013 permit renewal, it was determined that the potential emissions from this facility have been reduced to levels below the major source thresholds. For that reason, the operating permit for this facility was converted from a Title V to a State Only Natural Minor.

(j) The permit was administratively amended on April 11, 2014 to incorporate plan approvals 24-0131P and 24-0131Q and to remove the CAM language that does not apply to this facility because it is no longer a Title V Facility.

(k) This permit was administratively amended on July 15, 2021 to incorporate plan approvals 24-131R, 24-131S, 24-131T, 24-131U, and 24-131W.

(l) This permit renewal effective November 1, 2024, is issued November 1, 2024

(m) This permit was administratively amended on April 8, 2025 to incorporate the requirements of plan approvals 24-131V and 24-131X.

****** End of Report ******