ALLEGHENY COUNTY HEALTH DEPARTMENT

AIR QUALITY PROGRAM

301 39th Street, Bldg. #7
Pittsburgh, PA 15201-1891

Major Source
Title V Operating Permit

Issued To:	**Shenango Incorporated**	**ACHD Permit #:**	**0025**
Facility:	**Shenango Incorporated** **200 Neville Road** **Pittsburgh, PA 15225-1690**	**Date of Issuance:**	**May 22, 2013**
		Expiration Date:	**May 21, 2018**
		Renewal Date:	**November 22, 2017**

Issued By: _____
Sandra L. Etzel
Air Pollution Control Mgr.

Prepared By: **Hafeez A. Ajenifuja**
Air Quality Engineer

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AMENDMENTS:

DATE: SECTION:

I. CONTACT INFORMATION

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Company:	Shenango Incorporated
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EPA Contact:	**Enforcement Programs Section (3AP12)** **USEPA Region III** 1650 Arch Street Philadelphia, PA 19103-2029

II. FACILITY DESCRIPTION

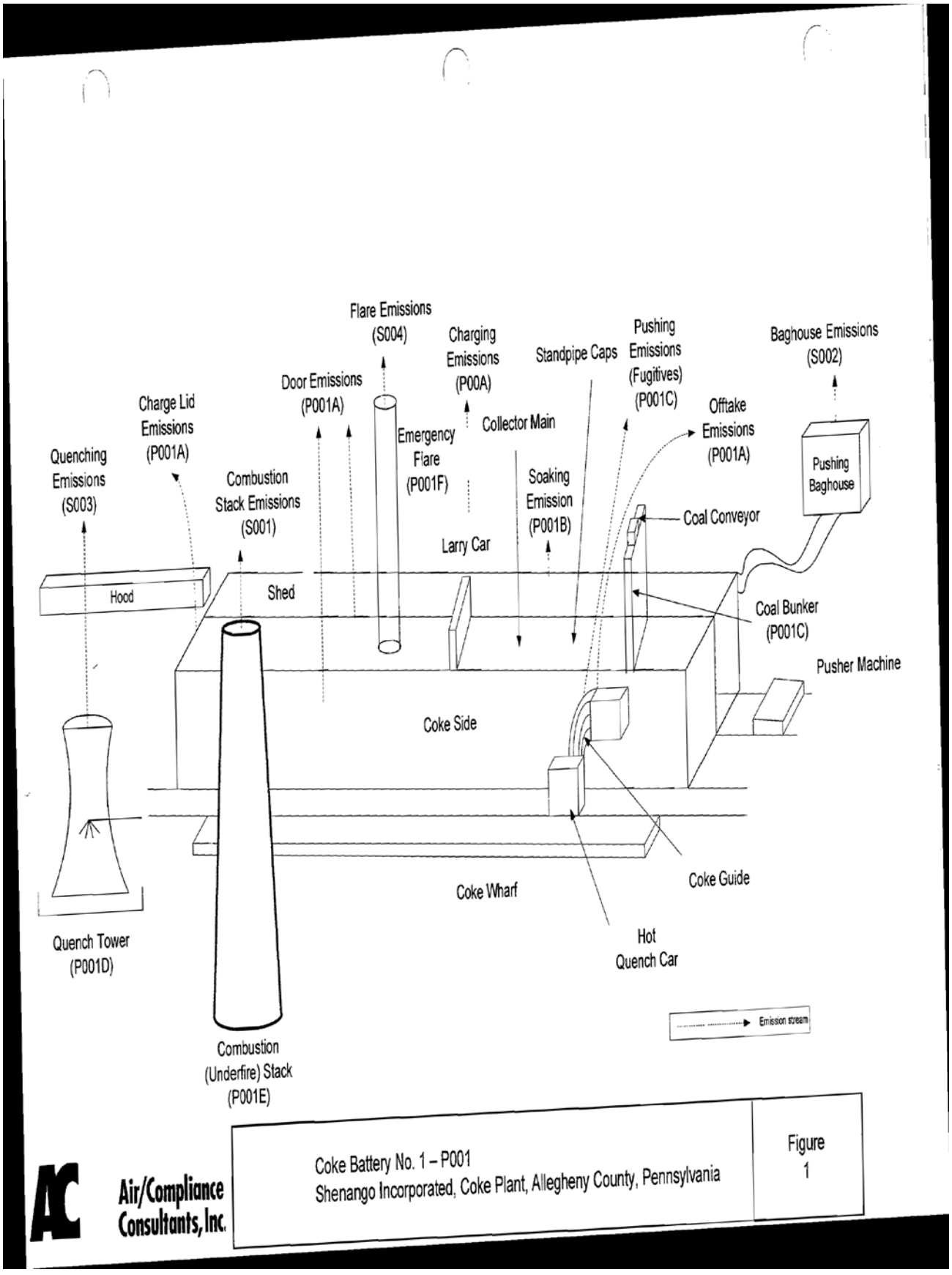
Shenango Incorporated's Neville Island Coke Plant located in Neville Township is a by-product recovery coke plant that performs destructive distillation of coal to produce metallurgical coke and by-products such as tar, light oil, sodium phenolate, and ammonium sulfate. Coke oven gas fuel, which is used to underfire the coke battery and to fuel the boilers, is a byproduct that also is produced. The facility consists of one coke battery made up of 56 individual ovens and has a nominal rated capacity of 1,500 tons coal/day. The plant is a major source of particulate matter (PM), particulate matter less than or equal to ten microns (PM_{10}), sulfur dioxide (SO_2), nitrogen oxides (NOx), carbon monoxide (CO) and volatile organic compounds (VOCs as defined in section 2101.20 of Article XXI.

This is a renewal of the Title V Operating Permit issued March 21, 2006. The emission units regulated by this permit are summarized in Table II-1:

TABLE II-1 - Emission Unit Identification

I.D.	SOURCE DESCRIPTION	CONTROL DEVICE(S)	MAXIMUM CAPACITY	FUEL/ RAW MATERIAL	STACK I.D.
P001A	Coke Battery No. 1	None	1,500 tons coal/day	Coal	S001
P001B	Pushing Emission Control	Baghouse	1,500 tons coal/day	Coke	S002
P001C	Coke Quench Tower	Baffles	1,500 tons coal/day	Coke	
P002	Coke By-Products Plant	Nitrogen Gas Blanketing	1,500 tons coal/day	Raw coke oven gas	S003
P003	Desulfurization Plant	Afterburner	1,500 tons coal/day	Coke Oven Gas	
P004	Clean Coke Oven Gas Main Flare	NA	Approximately 9.6 mmcf of COG per day	Clean coke oven gas	S00
P005	Coal and Coke Handling	Enclosures for unloading, convey-ing, screening and crushing operations	1,500 tons coal/day	Coal and Coke	N/A
P006	Liquid Loading Operations	None	4,847,684 gallons of tar; 1,705,305 gallons of light oil and 1,295,900 gallons of sodium phenolate per year	--	N/A
P007	Coal Tar Sludge recycling operation	NA	534,700 gallons	Liquefied Sludge	NA
T001-T008	Storage Tanks Greater Than 40,000 Gallons	Nitrogen Gas Blanketing	>40,000 gallons, each	Tar, flushing liquor, fuel oil & sodium phenolate	N/A

I.D.	SOURCE DESCRIPTION	CONTROL DEVICE(S)	MAXIMUM CAPACITY	FUEL/ RAW MATERIAL	STACK I.D.
T009-T019	Storage Tanks Less Than 40,000 Gallons	Nitrogen Gas Blanketing	<40,000 gallons, each	Tar, light oil, wash oil, flushing liquor & MEA	N/A
E001	Coal Storage Piles	None	17,250 tons	Coal	N/A
E002	Coke Storage Piles	None	4,025 tons	Coke	N/A
E003	Coke Breeze Storage Piles	None	575 tons	Coke Breeze	N/A
F001	Paved and Unpaved Roads and Parking Lots	N/A	1.0 miles paved roads, 0.8 miles unpaved roads & 1.2 acres of parking lots	N/A	N/A
F002	Miscellaneous - parts cleaning and methanol usage	None	55 gallons of Mineral Spirits & 3.8 tons of Methanol	Mineral Spirits and Methanol	N/A
B001	No. 1 Package Boiler	Low-NO_X Burners & Flue Gas Recirculation	71.8 MMBtu/Hr	Coke oven gas & natural gas	S005
B002 & B003	No. 2 & No. 3 Package Boilers	Low-NO_X Burners & Flue Gas Recirculation	96.8 MMBtu/hr, each	Coke oven gas, natural gas & No. 2 fuel oil	S006 & S007
B004	No. 4 Package Boiler	Low-NO_X Burners & Flue Gas Recirculation	96.8 MMBtu/hr	Coke oven gas & natural gas	S010
B005	Emergency Generator Cummins/QSK23-G7NR2	ultra-low sulfur diesel	600 kW (8 MMBtu/hr)	No. 2 Diesel Fuel Oil	S011
B006	Emergency Generator Cummins/QSK23-G3	ultra-low sulfur diesel	450 Kw (5.3 MMBtu/hr)	No. 2 Diesel Fuel Oil	S012


Flare Emissions (S004)
Charging Emissions (P00A)
Standpipe Caps
Pushing Emissions (Fugitives) (P001C)
Baghouse Emissions (S002)
Door Emissions (P001A)
Charge Lid Emissions (P001A)
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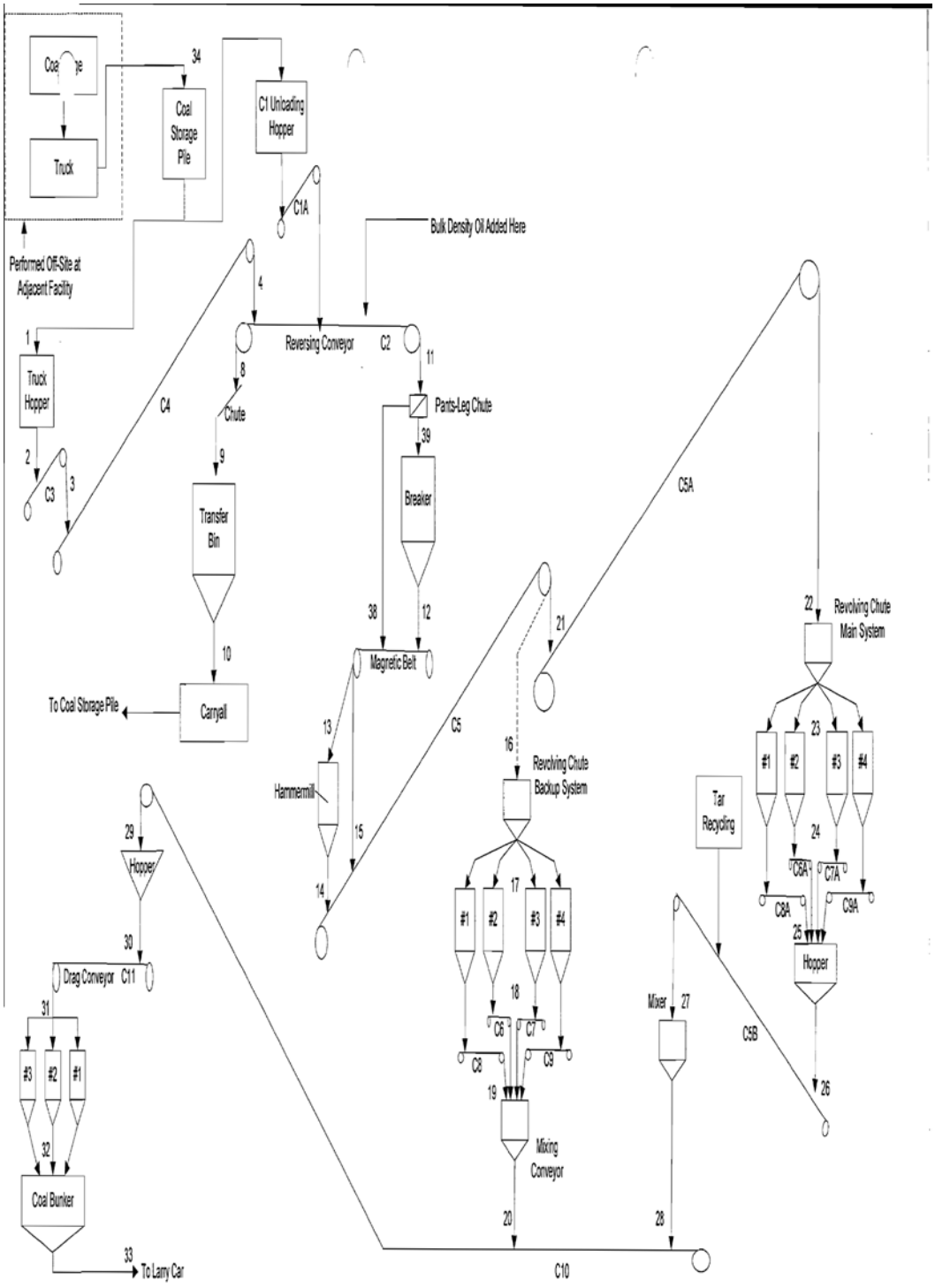
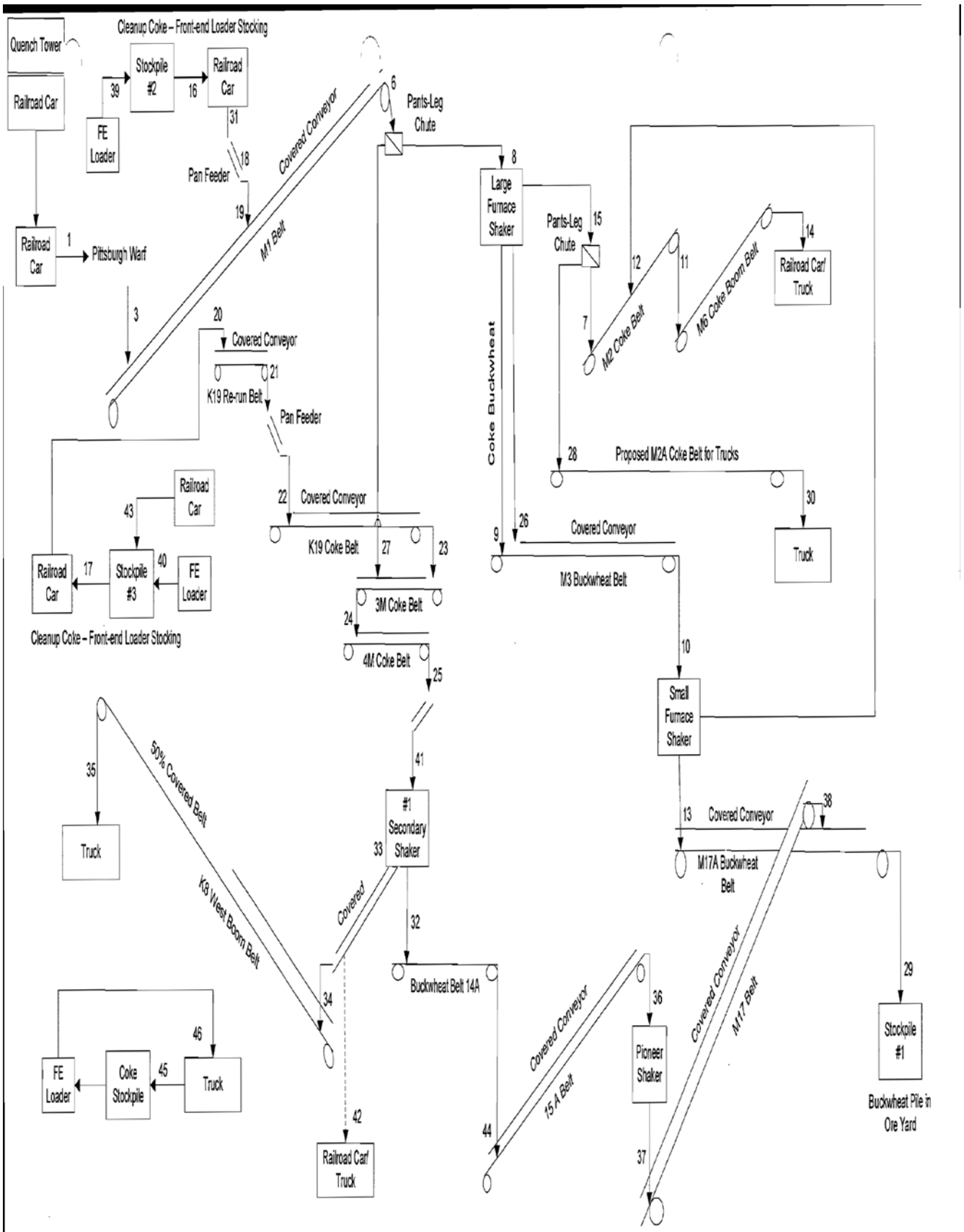
Soaking Emission (P001B)
Pushing Baghouse
Coal Conveyor
Larry Car
Hood
Shed
Coal Bunker (P001C)
Pusher Machine
Coke Side
Coke Guide
Coke Wharf
Quench Tower (P001D)
Hot Quench Car
Emission stream
Combustion (Underfire) Stack (P001E)
Air/Compliance Consultants, Inc.
Coke Battery No. 1 – P001
Shenango Incorporated, Coke Plant, Allegheny County, Pennsylvania
Figure 1



Air/Compliance Consultants, Inc.

Coal Handling System
Shenango Incorporated, Coke Plant, Allegheny County, Pennsylvania

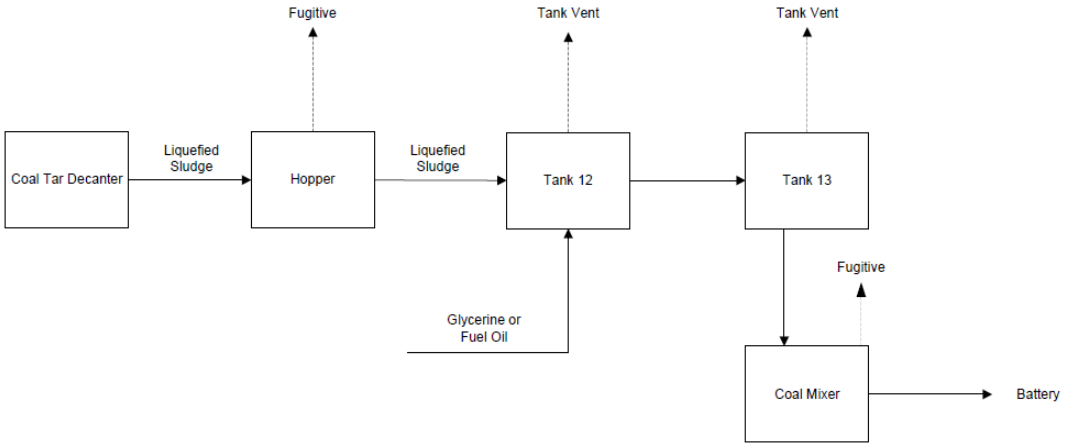
Figure 6



Air/Compliance Consultants, Inc.

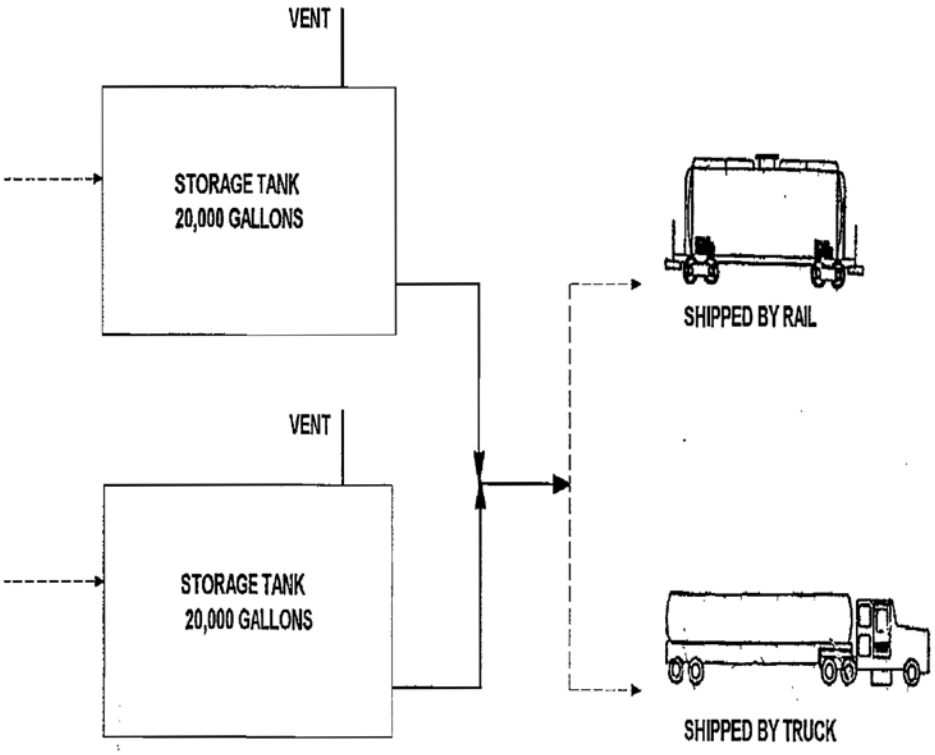
Coke Handling System
Shenango Incorporated, Coke Plant, Allegheny County, Pennsylvania

Figure 7



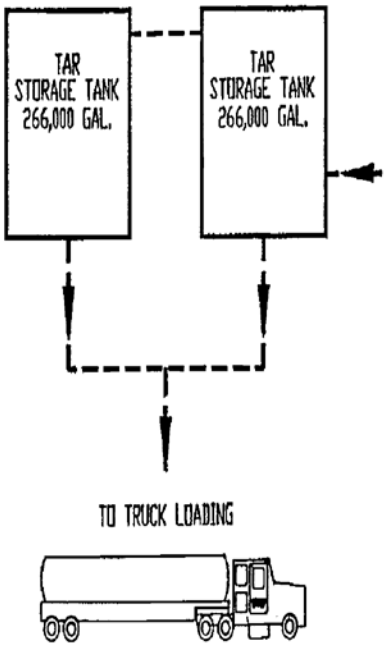
Air/Compliance Consultants, Inc.	Decanter Sludge Recycling Operation – P004 Shenango Incorporated, Coke Plant, Allegheny County, Pennsylvania	Figure 5

SHENANGO INCORPORATED
NEVILLE COKE PLANT

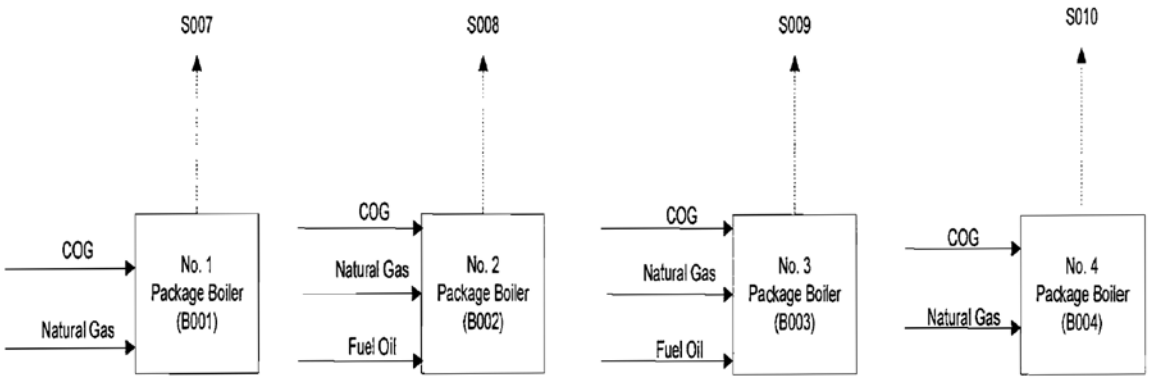


LIGHT OIL LOADING

SHENANGO INCORPORATED
NEVILLE COKE PLANT



TAR LOADING



Air/Compliance Consultants, Inc.

Package Boilers
Shenango Incorporated, Coke Plant, Allegheny County, Pennsylvania

Figure 4

DECLARATION OF POLICY

Pollution prevention is recognized as the preferred strategy (over pollution control) for reducing risk to air resources. Accordingly, pollution prevention measures should be integrated into air pollution control programs wherever possible, and the adoption by sources of cost-effective compliance strategies, incorporating pollution prevention, is encouraged. The Department will give expedited consideration to any permit modification request based on pollution prevention principles.

The permittee is subject to the terms and conditions set forth below. These terms and conditions constitute provisions of *Allegheny County Health Department Rules and Regulations, Article XXI Air Pollution Control*. The subject equipment has been conditionally approved for operation. The equipment shall be operated in conformity with the plans, specifications, conditions, and instructions which are part of your application, and may be periodically inspected for compliance by the Department. In the event that the terms and conditions of this permit or the applicable provisions of Article XXI conflict with the application for this permit, these terms and conditions and the applicable provisions of Article XXI shall prevail. Additionally, nothing in this permit relieves the permittee from the obligation to comply with all applicable Federal, State and Local laws and regulations.

III. GENERAL CONDITIONS - Major Source

1. Prohibition of Air Pollution (§2101.11)

It shall be a violation of this permit to fail to comply with, or to cause or assist in the violation of, any requirement of this permit, or any order or permit issued pursuant to authority granted by Article XXI. The permittee shall not willfully, negligently, or through the failure to provide and operate necessary control equipment or to take necessary precautions, operate any source of air contaminants in such manner that emissions from such source:

a. Exceed the amounts permitted by this permit or by any order or permit issued pursuant to Article XXI;
b. Cause an exceedance of the ambient air quality standards established by Article XXI §2101.10; or
c. May reasonably be anticipated to endanger the public health, safety, or welfare.

2. Definitions (§2101.20)

a. Except as specifically provided in this permit, terms used retain the meaning accorded them under the applicable provisions and requirements of Article XXI. Whenever used in this permit, or in any action taken pursuant to this permit, the words and phrases shall have the meanings stated, unless the context clearly indicates otherwise.

b. Unless specified otherwise in this permit or in the applicable regulation, the term "*year*" shall mean any twelve (12) consecutive months.

c. "RACT Plan 233" is defined as the "Plan Approval Order and Agreement No. 233 Upon Consent" dated December 30, 1996.

d. The definitions in 40 CFR Part 63 are hereby incorporated by reference into this permit.

3. Conditions (§2102.03.c)

It shall be a violation of this permit giving rise to the remedies provided by Article XXI §2109.02, for any person to fail to comply with any terms or conditions set forth in this permit.

4. Certification (§2102.01)

Any report or compliance certification submitted under this permit shall contain written certification by a responsible official as to truth, accuracy, and completeness. This certification and any other certification required under this permit shall be signed by a responsible official of the source, and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

5. Transfers (§2102.03.e)

This permit shall not be transferrable from one person to another, except in accordance with Article XXI §2102.03.e and in cases of change-in-ownership which are documented to the satisfaction of the Department, and shall be valid only for the specific sources and equipment for which this permit was issued. The transfer of permits in the case of change-in-ownership may be made consistent with the administrative permit amendment procedure of Article XXI §2103.14.b. The required documentation and fee must be received by the Department at least 30 days before the intended transfer date.

6. Term (§2103.12.e, §2103.13.a)

a. This permit shall remain valid for five (5) years from the date of issuance, or such other shorter period if required by the Clean Air Act, unless revoked. The terms and conditions of an 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 Article XXI Part C, and the Department through no fault of the permittee is unable to issue or deny a new permit before the expiration of the previous permit.

b. Expiration. Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with the requirements of Article XXI Part C.

7. Need to Halt or Reduce Activity Not a Defense (§2103.12.f.2)

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

8. Property Rights (§2103.12.f.4)

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

9. Duty to Provide Information (§2103.12.f.5)

a. The permittee shall furnish to the Department in writing within a reasonable time, any information that the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Department copies of any records required to be kept by the permit.

b. Upon cause shown by the permittee the records, reports, or information, or a particular portion thereof, claimed by the permittee to be confidential shall be submitted to the Department in accordance with the requirements of Article XXI, §2101.07.d.4. Information submitted to the Department under a claim of confidentiality, shall be available to the US EPA and the PADEP upon request and without restriction. Upon request of the permittee the confidential information may be submitted to the USEPA and PADEP directly. Emission data or any portions of any draft, proposed, or issued permits shall not be considered confidential.

10. Modification of Section 112(b) Pollutants which are VOCs or PM10 (§2103.12.f.7)

Except where precluded under the Clean Air Act or federal regulations promulgated under the Clean Air Act, if this permit limits the emissions of VOCs or PM_{10} but does not limit the emissions of any hazardous air pollutants, the mixture of hazardous air pollutants which are VOCs or PM_{10} can be modified so long as no permit emission limitations are violated. A log of all mixtures and changes shall be kept and reported to the Department with the next report required after each change.

11. Right to Access (§2103.12.h.2)

Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized Department and other federal, state, county, and local government representatives to:

a. Enter upon the permittee's premises where a permitted source is located or an emissions-related activity is conducted, or where records are or should be kept under the conditions of the permit;
b. Have access to, copy and remove, at reasonable times, any records that must be kept under the conditions of the permit;
c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
d. As authorized by either Article XXI or the Clean Air Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or other applicable requirements.

12. Certification of Compliance (§2103.12.h.5, §2103.22.i.1)

a. The permittee shall submit on an annual basis, certification of compliance with all terms and conditions contained in this permit, including emission limitations, standards, or work practices. The certification of compliance shall be made consistent with General Condition 4 above and shall include the following information at a minimum:

1) The identification of each term or condition of the permit that is the basis of the certification;
2) The compliance status;
3) Whether any noncompliance was continuous or intermittent;
4) The method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with the provisions of this permit; and
5) Such other facts as the Department may require to determine the compliance status of the source.

b. All certifications of compliance must be submitted to the Administrator as well as the Department by August 30 of each year for the time period beginning July 1 of the previous year and ending June 30 of the same year. The first report shall be due August 30, 2013 for the time period beginning on the issuance date of this permit through June 30, 2013.

13. Record Keeping Requirements (§2103.12.j.1)

a. The permittee shall maintain records of required monitoring information that include the following:

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

b. 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 and emission statements in Article XXI §2108.01.e. 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.

14. Retention of Records (§2103.12.j.2)

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

15. Reporting Requirements (§2103.12.k)

a. The permittee shall submit reports of any required monitoring at least every six (6) months. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by the Responsible Official.

b. Prompt reporting of deviations from permit requirements is required, including those attributable to upset conditions as defined in this permit and Article XXI §2108.01.c, the probable cause of such deviations, and any corrective actions or preventive measures taken.

c. All reports submitted to the Department shall comply with the certification requirements of General Condition 4 above.

d. Semiannual reports required by this permit shall be submitted to the Department as follows:

1) One semiannual report is due by July 31 of each year for the time period beginning January 1 and ending June 30.
2) One semiannual report is due by January 31 of each year for the time period beginning July 1 and ending December 31 of the previous year.

3) The first semiannual report shall be due July 31 for the time period beginning on the issuance date of this permit through June 30, 2013.

e. Quarterly reports required by this permit shall be submitted to the Department as follows:

1) One quarterly report is due by April 30 of each year for the time period beginning January 1 and ending March 31.
2) One quarterly report is due by July 31 of each year for the time period beginning April 1 and ending June 30.
3) One quarterly report is due by October 31 of each year for the time period beginning July 1 and ending September 30.
4) One quarterly report is due by January 31 of each year for the time period beginning October 1 and ending December 31 of the previous year.
5) The first quarterly report shall be due July 31, 2013 for the time period beginning on the issuance date of this permit through June 30, 2013.

16. Severability Requirement (§2103.12.l)

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.

17. Existing Source Reactivations (§2103.13.d)

The permittee shall not reactivate any source that has been out of operation or production for a period of one year or more unless the permittee has submitted a reactivation plan request to, and received a written reactivation plan approval from, the Department. Existing source reactivations shall meet all requirements of Article XXI §2103.13.d.

18. Administrative Permit Amendment Procedures (§2103.14.b, §2103.24.b)

An administrative permit amendment may be made consistent with the procedures of Article XXI §2103.14.b and §2103.24.b. Administrative permit amendments are not authorized for any amendment precluded by the Clean Air Act or the regulations thereunder.

19. Revisions and Minor Permit Modification Procedures (§2103.14.c, §2103.24.a)

Sources may apply for revisions and minor permit modifications on an expedited basis in accordance with Article XXI §2103.14.c and §2103.24.a.

20. Significant Permit Modifications (§2103.14.d)

Significant permit modifications shall meet all requirements of the applicable subparts of Article XXI, Part C, including those for applications, fees, public participation, review by affected States, and review by EPA, as they apply to permit issuance and permit renewal. The approval of a significant permit modification, if the entire permit has been reopened for review, shall commence a new full five (5) year permit term. The Department shall take final action on all such permits within nine (9) months following receipt of a complete application.

21. Duty to Comply (§2103.12.f.1, §2103.22.g)

The permittee shall comply with all permit conditions and all other applicable requirements at all times. Any permit noncompliance constitutes a violation of the Clean Air Act, the Air Pollution Control Act, and Article XXI and is grounds for any and all enforcement action, including, but not limited to, permit termination, revocation and reissuance, or modification, and denial of a permit renewal application.

22. Renewals (§2103.13.b., §2103.23.a)

Renewal of this permit is subject to the same fees and procedural requirements, including those for public participation and affected State and EPA review that apply to initial permit issuance. The application for renewal shall be submitted at least six (6) months but not more than eighteen (18) months prior to expiration of this permit. The application shall also include submission of a supplemental compliance review as required by Article XXI §2102.01.

23. Reopening for Cause (§2103.15, §2103.25.a, §2103.12.f.3)

a. This permit shall be reopened and reissued under any of the following circumstances:

1) Additional requirements under the Clean Air Act become applicable to a major source with a remaining permit term of three (3) or more years. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended solely due to the failure of the Department to act on a permit renewal application in a timely fashion.
2) Additional requirements, including excess emissions requirements, become applicable to an affected source under the acid rain program. Upon approval by the Administrator and the Department, excess emissions offset plans shall be deemed to be incorporated into this permit.
3) The Department or EPA determines that this permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit.
4) The Administrator or the Department determines that this permit must be reissued or revoked to assure compliance with the applicable requirements.

b. This permit may be modified; revoked, reopened, and reissued; or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes, for changes that are provided for in this permit.

24. Reopenings for Cause by the EPA (§2103.25.b)

This permit may be modified, reopened and reissued, revoked or terminated for cause by the EPA in accordance with procedures specified in Article XXI §2103.25.b.

25. Annual Operating Permit Administration Fee (§2103.40)

In each year during the term of this permit, on or before the last day of the month in which the application for this permit was submitted, the permittee shall submit to the Department, in addition to any other applicable administration fees, an Annual Operating Permit Administration Fee in accordance with §2103.40 by check or money order payable to the "Allegheny County Air Pollution Control Fund" in the amount specified in the fee schedule applicable at that time.

26. Annual Major Source Emissions Fees Requirements (§2103.41)

No later than September 1 of each year, the permittee shall pay an annual emission fee in accordance with Article XXI §2103.41 for each ton of a regulated pollutant (except for carbon monoxide) actually emitted from the source. The permittee shall not be required to pay an emission fee for emissions of more than 4,000 tons of each regulated pollutant. The emission fee shall be increased in each year after 1995 by the percentage, if any, by which the Consumer Price Index for the most recent calendar year exceeds the Consumer Price Index for the previous calendar year.

27. Other Requirements not Affected (§2104.08, §2105.02)

Compliance with the requirements of this permit shall not in any manner relieve any person from the duty to fully comply with any other applicable Federal, State, or County statute, rule, regulation, or the like, including but not limited to the odor emission standards under Article XXI §2104.04, any applicable NSPSs, NESHAPs, MACTs, or Generally Achievable Control Technology (GACT) standards now or hereafter established by the EPA, and any applicable requirements of BACT or LAER as provided by Article XXI, any condition contained in any applicable Installation or Operating Permit and/or any additional or more stringent requirements contained in an order issued to such person pursuant to Article XXI Part I.

28. Termination of Operation (§2108.01.a)

In the event that operation of any source of air contaminants is permanently terminated, the person responsible for such source shall so report, in writing, to the Department within 60 days of such termination.

29. Emissions Inventory Statements (§2108.01.e & g)

a. Emissions inventory statements in accordance with Article XXI §2108.01.e shall be submitted to the Department by March 15 of each year for the preceding calendar year. The Department may require more frequent submittals if the Department determines that more frequent submissions are required by the EPA or that analysis of the data on a more frequent basis is necessary to implement the requirements of Article XXI or the Clean Air Act.

b. The failure to submit any report or update within the time specified, the knowing submission of false information, or the willful failure to submit a complete report shall be a violation of this permit giving rise to the remedies provided by Article XXI §2109.02.

30. Tests by the Department (§2108.02.d)

Notwithstanding any tests conducted pursuant to Article XXI §2108.02, the Department or another entity designated by the Department may conduct emissions testing on any source or air pollution control equipment. At the request of the Department, the person responsible for such source or equipment shall

provide adequate sampling ports, safe sampling platforms and adequate utilities for the performance of such tests.

31. Other Rights and Remedies Preserved (§2109.02.b)

Nothing in this permit shall be construed as impairing any right or remedy now existing or hereafter created in equity, common law or statutory law with respect to air pollution, nor shall any court be deprived of such jurisdiction for the reason that such air pollution constitutes a violation of this permit.

32. Enforcement and Emergency Orders (§2109.03, §2109.05)

a. The person responsible for this source shall be subject to any and all enforcement and emergency orders issued to it by the Department in accordance with Article XXI §2109.03, §2109.04 and §2109.05.

b. Upon request, any person aggrieved by an Enforcement Order or Emergency Order shall be granted a hearing as provided by Article XXI §2109.03.d; provided however, that an Emergency Order shall continue in full force and effect notwithstanding the pendency of any such appeal.

c. Failure to comply with an Enforcement Order or immediately comply with an Emergency Order shall be a violation of this permit thus giving rise to the remedies provided by Article XXI §2109.02.

33. Penalties, Fines, and Interest (§2109.07.a)

A source that fails to pay any fee required under this permit when due shall pay a civil penalty of 50% of the fee amount, plus interest on the fee amount computed in accordance with Article XXI §2109.06.a.4 from the date the fee was required to be paid. In addition, the source may have this permit revoked for failure to pay any fee required.

34. Appeals (§2109.10)

In accordance with State Law and County regulations and ordinances, any person aggrieved by an order or other final action of the Department issued pursuant to Article XXI or any unsuccessful petitioner to the Administrator under Article XXI Part C, Subpart 2, shall have the right to appeal the action to the Director in accordance with the applicable County regulations and ordinances.

35. Risk Management (§2104.08, 40 CFR Part 68)

Should this stationary source, as defined in 40 CFR Part 68.3, become subject to Part 68, then the owner or operator shall submit a risk management plan (RMP) by the date specified in Part 68.10 and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by *General Condition III.12* above.

36. Circumvention (§2101.14)

For purposes of determining compliance with the provisions of this permit and Article XXI, no credit shall be given to any person for any device or technique, including but not limited to the operation of any source with unnecessary amounts of air, the combining of separate sources except as specifically permitted by Article XXI and the Department, the use of stacks exceeding Good Engineering Practice

height as defined by regulations promulgated by the US EPA at 40 CFR §§51.100 and 51.110 and Subpart I, and other dispersion techniques, which without reducing the amount of air contaminants emitted, conceals or dilutes an emission of air contaminants which would otherwise violate the provisions of this Article; except that, for purposes of determining compliance with Article §2104.04 concerning odors, credit for such devices or techniques, except for the use of a masking agent, may be given.

37. Duty to Supplement and Correct Relevant Facts (§2103.11.d.2)

a. The permittee shall provide additional information as necessary to address requirements that become applicable to the source after the date it files a complete application but prior to the Department taking action on the permit application.

b. The permittee shall provide supplementary fact or corrected information upon becoming aware that incorrect information has been submitted or relevant facts were not submitted.

c. Except as otherwise required by this permit and Article XXI, the Clean Air Act, or the regulations thereunder, the permittee shall submit additional information as necessary to address changes occurring at the source after the date it files a complete application but prior to the Department taking action on the permit application.

d. The applicant shall submit information requested by the Department which is reasonably necessary to evaluate the permit application.

38. Effect (§2102.03.g.)

a. Except as specifically otherwise provided under Article XXI, Part C, issuance of a permit pursuant to Article XXI Part B or Part C shall not in any manner relieve any person of the duty to fully comply with the requirements of this permit, Article XXI or any other provision of law, nor shall it in any manner preclude or affect the right of the Department to initiate any enforcement action whatsoever for violations of this permit or Article XXI, whether occurring before or after the issuance of such permit. Further, except as specifically otherwise provided under Article XXI Part C the issuance of a permit shall not be a defense to any nuisance action, nor shall such permit be construed as a certificate of compliance with the requirements of this permit or Article XXI.

39. Installation Permits (§2102.04.a.1.)

It shall be a violation of this permit giving rise to the remedies set forth in Article XXI Part I for any person to install, modify, replace, reconstruct, or reactivate any source or air pollution control equipment which would require an installation permit or permit modification in accordance with Article XXI Part B or C unless:

a. The Department has first issued an Installation Permit for such source or equipment; or
b. Such action is solely a reactivation of a source with a current Operating Permit which is approved under §2103.13 of Article XXI; or
c. Such source is exempt under subsection §2102.04.a.5 of Article XXI.

IV. SITE LEVEL TERMS AND CONDITIONS

1. Reporting of Upset Conditions (§2103.12.k.2)

The permittee shall promptly report all deviations from permit requirements, including those attributable to upset conditions as defined in Article XXI §2108.01.c, the probable cause of such deviations, and any corrective actions or preventive measures taken. The Department shall define "prompt" on a case by case basis in relation to the degree and type of deviation likely to occur and the applicable requirements.

2. Visible Emissions (§2104.01.a)

a. Except as provided for by Article XXI §2108.01.d pertaining to a cold start, and the exclusions provided for by Condition IV.2.b below, no person shall operate, or allow to be operated, any source in such manner that the opacity of visible emissions from a flue or process fugitive emissions from such source, excluding uncombined water:

1) Equal or exceed an opacity of 20% for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period; or,

2) Equal or exceed an opacity of 60% at any time.

b. Condition IV.2.a above shall not apply to:

1) Coke ovens or a battery of coke ovens;
2) Incinerators; or
3) Visible emissions resulting solely from the cold start of fuel-burning or combustion equipment if such a cold start has been reported as required by §2108.01.d.

3. Odor Emissions (§2104.04) (County-only enforceable)

No person shall operate, or allow to be operated, any source in such manner that emissions of malodorous matter from such source are perceptible beyond the property line.

4. Materials Handling (§2104.05)

The permittee shall not conduct, or allow to be conducted, any materials handling operation in such manner that emissions from such operation are visible at or beyond the property line.

5. Operation and Maintenance (§2105.03)

All air pollution control equipment required by this permit or any order under Article XXI, and all equivalent compliance techniques approved by the Department, shall be properly installed, maintained, and operated consistently with good air pollution control practice.

6. Open Burning (§2105.50)

No person shall conduct, or allow to be conducted, the open burning of any material, except where the Department has issued an Open Burning Permit to such person in accordance with Article XXI §2105.50 or where the open burning is conducted solely for the purpose of non-commercial preparation of food for human consumption, recreation, light, ornament, or provision of warmth for outside workers, and in a manner which contributes a negligible amount of air contaminants.

7. Shutdown of Control Equipment (§2108.01.b)

a. In the event any air pollution control equipment is shut down for reasons other than a breakdown, the person responsible for such equipment shall report, in writing, to the Department the intent to shut down such equipment at least 24 hours prior to the planned shutdown. Notwithstanding the submission of such report, the equipment shall not be shut down until the approval of the Department is obtained; provided, however, that no such report shall be required if the source(s) served by such air pollution control equipment is also shut down at all times that such equipment is shut down.

b. The Department shall act on all requested shutdowns as promptly as possible. If the Department does not take action on such requests within ten (10) calendar days of receipt of the notice, the request shall be deemed denied, and upon request, the owner or operator of the affected source shall have a right to appeal in accordance with the provisions of Article XI.

c. The prior report required by Site Level Condition IV.7.a above shall include:

1) Identification of the specific equipment to be shut down, its location and permit number (if permitted), together with an identification of the source(s) affected;
2) The reasons for the shutdown;
3) The expected length of time that the equipment will be out of service;
4) Identification of the nature and quantity of emissions likely to occur during the shutdown;
5) Measures, including extra labor and equipment, which will be taken to minimize the length of the shutdown, the amount of air contaminants emitted, or the ambient effects of the emissions;
6) Measures which will be taken to shut down or curtail the affected source(s) or the reasons why it is impossible or impracticable to shut down or curtail the affected source(s) during the shutdown; and
7) Such other information as may be required by the Department.

8. Breakdowns (§2108.01.c)

a. In the event that any air pollution control equipment, process equipment, or other source of air contaminants breaks down in such manner as to have a substantial likelihood of causing the emission of air contaminants in violation of this permit, or of causing the emission into the open air of potentially toxic or hazardous materials, the person responsible for such equipment or source shall immediately, but in no event later than sixty (60) minutes after the commencement of the breakdown, notify the Department of such breakdown and shall, as expeditiously as possible but in no event later than seven (7) days after the original notification, provide written notice to the Department.

b. To the maximum extent possible, all oral and written notices required shall include all pertinent facts, including:

1) Identification of the specific equipment which has broken down, its location and permit number (if permitted), together with an identification of all related devices, equipment, and other sources which will be affected.
2) The nature and probable cause of the breakdown.
3) The expected length of time that the equipment will be inoperable or that the emissions will continue.
4) Identification of the specific material(s) which are being, or are likely to be emitted, together with a statement concerning its toxic qualities, including its qualities as an irritant, and its potential for causing illness, disability, or mortality.
5) The estimated quantity of each material being or likely to be emitted.
6) Measures, including extra labor and equipment, taken or to be taken to minimize the length of the breakdown, the amount of air contaminants emitted, or the ambient effects of the emissions, together with an implementation schedule.
7) Measures being taken to shut down or curtail the affected source(s) or the reasons why it is impossible or impractical to shut down the source(s), or any part thereof, during the breakdown.

c. Notices required shall be updated, in writing, as needed to advise the Department of changes in the information contained therein. In addition, any changes concerning potentially toxic or hazardous emissions shall be reported immediately. All additional information requested by the Department shall be submitted as expeditiously as practicable.

d. Unless otherwise directed by the Department, the Department shall be notified whenever the condition causing the breakdown is corrected or the equipment or other source is placed back in operation by no later than 9:00 AM on the next County business day. Within seven (7) days thereafter, written notice shall be submitted pursuant to Paragraphs a and b above.

e. Breakdown reporting shall not apply to breakdowns of air pollution control equipment which occur during the initial startup of said equipment, provided that emissions resulting from the breakdown are of the same nature and quantity as the emissions occurring prior to startup of the air pollution control equipment.

f. In no case shall the reporting of a breakdown prevent prosecution for any violation of this permit or Article XXI.

9. Cold Start (§2108.01.d)

In the event of a cold start on any fuel-burning or combustion equipment, except stationary internal combustion engines and combustion turbines used by utilities to meet peak load demands, the person responsible for such equipment shall report in writing to the Department the intent to perform such cold start at least 24 hours prior to the planned cold start. Such report shall identify the equipment and fuel(s) involved and shall include the expected time and duration of the startup. Upon written application from the person responsible for fuel-burning or combustion equipment which is routinely used to meet peak load demands and which is shown by experience not to be excessively emissive during a cold start, the Department may waive these requirements and may instead require periodic reports listing all cold starts which occurred during the report period. The Department shall make such waiver in writing, specifying such terms and conditions as are appropriate to achieve the purposes of Article XXI. Such waiver may be

terminated by the Department at any time by written notice to the applicant.

10. Monitoring of Malodorous Matter Beyond Facility Boundaries (§2104.04)

The permittee shall take all reasonable action as may be necessary to prevent malodorous matter from becoming perceptible beyond facility boundaries. Further, the permittee shall perform such observations as may be deemed necessary along facility boundaries to insure that malodorous matter beyond the facility boundary in accordance with Article XXI §2107.13 is not perceptible and record all findings and corrective action measures taken.

11. Orders (§2108.01.f)

In addition to meeting the requirements of General Condition III.28 through III.29 and Site Level Conditions IV.7 through IV.9 above inclusive, the person responsible for any source shall, upon order by the Department, report to the Department such information as the Department may require in order to assess the actual and potential contribution of the source to air quality. The order shall specify a reasonable time in which to make such a report.

12. Violations (§2108.01.g)

The failure to submit any report or update thereof required by General Condition III.28 and Site Level Conditions IV.7 through IV.9 and IV.11 above, inclusive, within the time specified, the knowing submission of false information, or the willful failure to submit a complete report shall be a violation of this permit giving rise to the remedies provided by Article XXI §2109.02.

13. Emissions Testing (§2108.02)

a. On or before December 31, 1981, and at two-year intervals thereafter, any person who operates, or allows to be operated, any piece of equipment or process which has an allowable emission rate, of 100 or more tons per year of particulate matter, sulfur oxides or volatile organic compounds shall conduct, or cause to be conducted, for such equipment or process such emissions tests as are necessary to demonstrate compliance with the applicable emission limitation(s) of this permit and shall submit the results of such tests to the Department in writing. Emissions testing conducted pursuant to this section shall comply with all applicable requirements of Article XXI §2108.02.e.

b. **Orders.** In addition to meeting the requirements of Site Level Condition IV.13.a above, the person responsible for any source shall, upon order by the Department, conduct, or cause to be conducted, such emissions tests as specified by the Department within such reasonable time as is specified by the Department. Test results shall be submitted in writing to the Department within 20 days after completion of the tests, unless a different period is specified in the Department's order. Emissions testing shall comply with all applicable requirements of Article XXI §2108.02.e.

c. **Tests by the Department.** Notwithstanding any tests conducted pursuant to Site Level Conditions IV.13.a and IV.13.b above, the Department or another entity designated by the Department may conduct emissions testing on any source or air pollution control equipment. At the request of the Department, the person responsible for such source or equipment shall provide adequate sampling ports, safe sampling platforms and adequate utilities for the performance of such tests.

d. **Testing Requirements.** No later than 45 days prior to conducting any tests required by this permit, the person responsible for the affected source shall submit for the Department's approval a written test protocol explaining the intended testing plan, including any deviations from standard testing procedures, the proposed operating conditions of the source during the test, calibration data for specific test equipment and a demonstration that the tests will be conducted under the direct supervision of persons qualified by training and experience satisfactory to the Department to conduct such tests. In addition, at least 30 days prior to conducting such tests, the person responsible shall notify the Department in writing of the time(s) and date(s) on which the tests will be conducted and shall allow Department personnel to observe such tests, record data, provide pre-weighed filters, analyze samples in a County laboratory and to take samples for independent analysis. Test results shall be comprehensively and accurately reported in the units of measurement specified by the applicable emission limitations of this permit.

e. Test methods and procedures shall conform to the applicable reference method set forth in this permit or Article XXI Part G, or where those methods are not applicable, to an alternative sampling and testing procedure approved by the Department consistent with Article XXI §2108.02.e.2.

f. **Violations**. The failure to perform tests as required by this permit or an order of the Department, the failure to submit test results within the time specified, the knowing submission of false information, the willful failure to submit complete results, or the refusal to allow the Department, upon presentation of a search warrant, to conduct tests, shall be a violation of this permit giving rise to the remedies provided by Article XXI §2109.02.

14. Abrasive Blasting (§2105.51)

a. Except where such blasting is a part of a process requiring an operating permit , no person shall conduct or allow to be conducted, abrasive blasting or power tool cleaning of any surface, structure, or part thereof, which has a total area greater than 1,000 square feet unless such abrasive blasting complies with all applicable requirements of Article XXI §2105.51.

b. In addition to complying with all applicable provisions of §2105.51, no person shall conduct, or allow to be conducted, abrasive blasting of any surface unless such abrasive blasting also complies with all other applicable requirements of Article XXI unless such requirements are specifically addressed by §2105.51.

15. Asbestos Abatement (§2105.62, §2105.63)

In the event of removal, encasement, or encapsulation of Asbestos-Containing Material (ACM) at a facility or in the event of the demolition of any facility, the permittee shall comply with all applicable provisions of Article XXI §2105.62 and §2105.63.

16. Protection of Stratospheric Ozone (40 CFR Part 82)

a. Permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
   1) All containers in which a Class I or Class II substance is stored or transported, all products containing a Class I substance, and all products directly manufactured with a process that uses a Class I substance must bear the required warning statement if it is being introduced

into interstate commerce pursuant to §82.106;
2) The placement of the required warning statement must comply with the requirements pursuant to §82.108;
3) The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110; and
4) No person may modify, remove or interfere with the required warning statement except as described in §82.112.

b. Permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F:

1) Persons opening appliances for maintenance, service, repair or disposal must comply with the prohibitions and required practices pursuant to §82.154 and §82.156;
2) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158;
3) Persons maintaining, servicing, repairing or disposing of appliances, must be certified by an approved technician certification program pursuant to §82.161;
4) Persons maintaining, servicing, repairing or disposing of appliances must certify to the Administrator of the U.S. Environmental Protection Agency pursuant to §82.162;
5) Persons disposing of small appliances, motor vehicle air conditioners (MVAC) and MVAC-like appliances, must comply with the record keeping requirements pursuant to §82.166;
6) Owners of commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156; and
7) Owners or operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.

c. If the permittee manufactures, transforms, destroys, imports or exports a Class I or Class II substance, the Permittee is subject to all the requirements as specified in 40 CFR Part 82, Subpart A (Production and Consumption Controls).

d. If the permittee performs a service on a motor vehicle that involves an ozone-depleting substance, refrigerant or regulated substitute substance in the MVAC, the Permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B (Servicing of Motor Vehicle Air Conditioners).

e. The permittee may switch from any ozone-depleting substance to any alternative that is listed as acceptable in the Significant New Alternatives Policy (SNAP) program promulgated pursuant to 40 CFR Part 82, Subpart G.

17. Volatile Organic Compound Storage Tanks (§2105.12.a)

No person shall place or store, or allow to be placed or stored, a volatile organic compound having a vapor pressure of 1.5 psia or greater under actual storage conditions in any aboveground stationary storage tank having a capacity equal to or greater than 2,000 gallons but less than or equal to 40,000 gallons, unless there is in operation on such tank pressure relief valves which are set to release at the higher of 0.7 psig of pressure or 0.3 psig of vacuum or at the highest possible pressure and vacuum in accordance with State or local fire codes, National Fire Prevention Association guidelines, or other national consensus standard approved in writing by the Department. Petroleum liquid storage vessels that are used to store produced crude oil and condensate prior to lease custody transfer are exempt from these requirements.

18. Permit Source Premises (§2105.40)

a. **General.** No person shall operate, or allow to be operated, any source for which a permit is required by Article XXI Part C in such manner that emissions from any open land, roadway, haul road, yard, or other premises located upon the source or from any material being transported within such source or from any source-owned access road, haul road, or parking lot over five (5) parking spaces:

1) Are visible at or beyond the property line of such source;
2) Have an opacity of 20% or more for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period; or
3) Have an opacity of 60% or more at any time.

b. **Deposition on Other Premises.** Visible emissions from any solid or liquid material that has been deposited by any means from a source onto any other premises shall be considered emissions from such source within the meaning of Site Level Condition IV.18.a above.

19. Parking Lots and Roadways (§2105.42)

a. The permittee shall not maintain for use, or allow to be used, any parking lot over 50 parking spaces or used by more than 50 vehicles in any day or any other roadway carrying more than 100 vehicles in any day or 15 vehicles in any hour in such manner that emissions from such parking lot or roadway:

1) Are visible at or beyond the property line;
2) Have an opacity of 20% or more for a period or periods aggregating more than three (3) minutes in any 60 minute period; or
3) Have an opacity of 60% or more at any time.

b. Visible emissions from any solid or liquid material that has been deposited by any means from a parking lot or roadway onto any other premises shall be considered emissions from such parking lot or roadway.

c. Site Level Condition IV.19.a above shall apply during any repairs or maintenance done to such parking lot or roadway.

d. Notwithstanding any other provision of this permit, the prohibitions of Site Level Condition IV.19 may be enforced by any municipal or local government unit having jurisdiction over the place where such parking lots or roadways are located. Such enforcement shall be in accordance with the laws governing such municipal or local government unit. In addition, the Department may pursue the remedies provided by Article XXI §2109.02 for any violations of Site Level Condition IV.19.

20. Permit Source Transport (§2105.43)

a. No person shall transport, or allow to be transported, any solid or liquid material outside the boundary line of any source for which a permit is required by Article XXI Part C in such manner that there is any visible emission, leak, spill, or other escape of such material during transport.

b. Notwithstanding any other provision of this permit, the prohibitions of Site Level Condition IV.20 may be enforced by any municipal or local government unit having jurisdiction over the place where such visible emission, leak, spill, or other escape of material during transport occurs. Such enforcement shall be in accordance with the laws governing such municipal or local government unit. In addition, the Department may pursue the remedies provided by Article XXI §2109.02 for any violation of Site Level Condition IV.20.

21. Construction and Land Clearing (§2105.45)

a. No person shall conduct, or allow to be conducted, any construction or land clearing activities in such manner that the opacity of emissions from such activities:

1) Equal or exceed 20% for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period; or
2) Equal or exceed 60% at any time.

b. Notwithstanding any other provision of this permit, the prohibitions of Site Level Condition IV.21 may be enforced by any municipal or local government unit having jurisdiction over the place where such construction or land clearing activities occur. Such enforcement shall be in accordance with the laws governing such municipal or local government unit. In addition, the Department may pursue the remedies provided by Article XXI §2109.02 for any violations of Site Level Condition IV.21.

22. Mining (§2105.46)

No person shall conduct, or allow to be conducted, any mining activities in such manner those emissions from such activities:

a. Are visible at or beyond the property line;
b. Have an opacity of 20% or more for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period; or,
c. Have an opacity of 60% or more at any time.

23. Demolition (§2105.47)

a. No person shall conduct, or allow to be conducted, any demolition activities in such manner that the opacity of the emissions from such activities equal or exceed 20% for a period or periods aggregating more than three (3) minutes in any 60 minute period.

b. Notwithstanding any other provisions of this permit, the prohibitions of Site Level Condition IV.23 may be enforced by any municipal or local government unit having jurisdiction over the place where such demolition activities occur. Such enforcement shall be in accordance with the laws governing such municipal or local government unit. In addition, the Department may pursue the remedies provided by Article XXI §2109.02 for any violations of Site Level Condition IV.23.

24. Fugitive Emissions (§2105.49)

The person responsible for a source of fugitive emissions, in addition to complying with all other applicable provisions of this permit shall take all reasonable actions to prevent fugitive air contaminants from becoming airborne. Such actions may include, but are not limited to:

a. The use of asphalt, oil, water, or suitable chemicals for dust control;
b. The paving and maintenance of roadways, parking lots and the like;
c. The prompt removal of earth or other material which has been deposited by leaks from transport, erosion or other means;
d. The adoption of work or other practices to minimize emissions;
e. Enclosure of the source; and
f. The proper hooding, venting, and collection of fugitive emissions.

25. Episode Plans (§2106.02)

The permittee shall upon written request of the Department, submit a source curtailment plan, consistent with good industrial practice and safe operating procedures, designed to reduce emissions of air contaminants during air pollution episodes. Such plans shall meet the requirements of Article XXI §2106.02.

26. New Source Performance Standards (§2105.05)

a. It shall be a violation of this permit giving rise to the remedies provided by §2109.02 of Article XXI for any person to operate, or allow to be operated, any source in a manner that does not comply with all requirements of any applicable NSPS now or hereafter established by the EPA, except if such person has obtained from EPA a waiver pursuant to Section 111 or Section 129 of the Clean Air Act or is otherwise lawfully temporarily relieved of the duty to comply with such requirements.

b. Any person who operates, or allows to be operated, any source subject to any NSPS shall conduct, or cause to be conducted, such tests, measurements, monitoring and the like as is required by such standard. All notices, reports, test results and the like as are required by such standard shall be submitted to the Department in the manner and time specified by such standard. All information, data and the like which is required to be maintained by such standard shall be made available to the Department upon request for inspection and copying.

27. Consent Decree

a. The Shenango Incorporated, Consent Decree (Civil Action No. 12-1029), is incorporated by reference until terminated. If the Consent Decree is terminated, the requirements in conditions V.A.1.s through V.A.1.u, V.A.3.l, V.A.3.p, V.A.3.r through V.A.3.u, V.A.4.g, V.A.4.n, and V.A.4.o and V.A.5.b shall be retained for the term of this Title V Operating Permit or until removed by permit modification, whichever occurs first.

b. The Administrative Consent Order and Agreement dated June 19, 2012, as may be amended, by and between the Allegheny County Health Department and Shenango Incorporated is incorporated by reference until terminated. If the Consent Decree is terminated, the requirements in conditions V.A.1.r, V.A.3.q, V.E.1.d, V.E.3.a through V.E.3.d, V.E.4.b, V.E.4.d, V.E.5.a and V.S.3.f shall be retained for the term of this Title V Operating Permit or until removed by permit modification, whichever occurs first.

V. EMISSION UNIT LEVEL TERMS AND CONDITIONS

A. Process P001A: Coke Battery No. 1

Process Description: 56-Oven Coke Battery
Facility ID: P001
Max. Design Rate: 547,500 tons coal/year
Capacity: 547,500 tons coal/year
Raw Materials: Coal, bulk density control additives and recycled coke plant materials
Control Device: None

As identified above, Process P001 consists of: Flare Stack, Charging, Door leaks, Lid Leaks, Offtake Leaks, Soaking, Coke Quenching, Coke Pushing and Traveling Hot Car and Combustion Stack

1. Restrictions:

a. The permittee shall not exceed a coal charging rate to the No. 1 Battery of 1,500 tons/day, at any time. [Installation Permit No. 80-I-0053-P]

b. The permittee shall install, operate and maintain a bypass/bleeder stack flare system that is capable of controlling at least 26.1 mmcf/day of the normal coke oven gas flow generated by the battery. [§63.307(a)(1)]

c. Coke oven emissions shall not be vented to the atmosphere through the bypass/bleeder stacks, except through the flare system. [§63.307(a)(2)]

d. The emergency bypass/bleeder stack flare system installed pursuant to Condition V.A.1.b above, shall be designed for a net heating value of 240 Btu per standard cubic feet (Btu/scf). [§63.307(b)(1)]

e. The bypass/bleeder stack flare shall be operated with a continuously operable pilot flame at all times. The pilot flame shall be monitored by a thermocouple or any other equivalent device. [§2103.12.h.6; §63.307(b)(2); §63.307(b)(4) and §63.309)(h)(2)]

f. The bypass/bleeder stack flare installed to meet the requirements of Conditions V.A.1.b and V.A.1.c above shall be operated with no visible emissions, as determined by Method 22 in Appendix A of 40 CFR Part 60, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. [§63.307(c)]

g. At all times including periods of startup, shutdown, and malfunction, the permittee shall operate and maintain Battery No. 1 and its pollution control equipment required under 40 CFR 63, Subpart L, in a manner consistent with good air pollution control practices for minimizing emissions to the levels required by any applicable performance standards under Subpart L. Failure to adhere to these requirements shall not constitute a separate violation if a violation of an applicable performance or work practice standard has also occurred. [§63.310(a)]

h. The permittee shall develop and implement according to §63.310(c), a written startup, shutdown, and malfunction plan that describes procedures for operating the battery, including associated air pollution control equipment, during a period of a startup, shutdown, or malfunction in a manner consistent with good air pollution control practices for minimizing emissions, and procedures for

correcting malfunctioning process and air pollution control equipment as quickly as practicable. [§63.310(b)]

i. The permittee shall not operate, or allow to be operated, any source in such manner that unburned coke oven gas is emitted into the open air. In addition, the permittee shall not flare, mix, or combust coke oven gas, or allow such gas to be flared, mixed or combusted unless the concentration of sulfur compounds, measured as a daily average of hydrogen sulfide, in such gas is less than or equal to 34 grains per hundred dry standard cubic feet of coke oven gas. The concentration of sulfur compounds specified shall include the tail-gas sulfur, measured as hydrogen sulfide, emitted from sulfur removal equipment. [§2105.21.h.3, Administrative Consent Order dated June 19, 2012 Section V.B]

j. The permittee shall not operate, or allow to be operated Coke Battery No. 1, in such manner that the aggregate of visible charging emissions exceeds a total of 55 seconds during any five (5) consecutive charges. [§2105.21.a.1]

k. The permittee shall not operate, or allow to be operated Coke Battery No. 1, in such manner that, at any time, there are visible emissions from more than five percent (5%) of the door areas of the operating ovens in Battery No. 1, excluding the two door areas of the last oven charged and any door areas obstructed from view. [§2105.21.b.1]

l. The permittee shall not cause to be discharged or allow to be discharged to the atmosphere coke oven emissions that exceed any of the following emission limitations: [§63.304(b)(2); §63.304(b)(3)]

a) 3.3 percent leaking coke oven doors as determined by the procedures in Condition V.A.3.f.1) below [§63.304(b)(3)(ii)];
b) 0.4 percent leaking topside port lids, as determined by the procedures in Condition V.A.3.f.1) below [§63.304(b)(2)(i)(B)(ii)];
c) 2.5 percent leaking offtake system(s), as determined by the procedures in Condition V.A.3.f.1) below [§63.304(b)(2)(i)(B)(iii)]; and
d) 12 seconds of visible emissions per charge, as determined by the procedures in Condition V.A.3.f.2) below [§63.304(b)(2)(i)(B)(iv)].

m. The permittee shall operate according to the work practice plan, required in Condition V.A.6.b, V.A.6.c and V.A.6.d below for each emission point, following the second independent exceedance of the visible emission limitation for the emission point in any consecutive 6-month period, by no later than 3 days after receipt of written notification of the second such exceedance from the certified observer. The permittee shall continue to implement such plan provisions until the visible emission limitation for the emission point is achieved for 90 consecutive days. [§63.306(c)]

n. The permittee shall not operate, or allow to be operated Coke Oven Battery No. 1 in such manner that emissions from the door areas of any coke oven exceed an opacity of 40% at any time 15 or more minutes after such oven has been charged. [§2105.21.b.4]

o. The permittee shall not operate, or allow to be operated Coke Oven Batter No. 1 in such manner that, at any time, there are visible emissions from more than one percent (1%) of the charging ports or charging port seals on the operating coke ovens of such battery. [§2105.21.c.1]

p. The permittee shall not operate, or allow to be operated Coke Oven Battery No. 1 in such manner that, at any time, there are visible emissions from more than four percent (4%) of the off-take piping on the operating coke ovens of such battery. [§2105.21.d.1]

q. The permittee shall not operate, or allow to be operated Coke Oven Battery No. 1 in such manner that visible emissions from the transport of hot coke in the open atmosphere exceed ten percent (10%) opacity at any time. [§2105.21.e.5]

r. At no time shall soaking emissions from a standpipe cap opening exceed twenty (20%) opacity. An exclusion for this opacity limit shall be allowed for two (2) minutes after a standpipe cap is opened. Soaking emission from a standpipe cap shall be defined as uncombusted emissions from an open standpipe which has been dampered off in preparation of pushing the coke mass out of the oven and shall end when pushing begins, (i.e., when the coke side door is removed). This requirement shall automatically terminate when the Department promulgates a soaking emissions standard rule pursuant to its rulemaking authority and such rule becomes effective. [Administrative Consent Order and Agreement dated June 19, 2012 Section V.A]

s. The permittee shall not operate, or allow to be operated, Coke Oven Battery No. 1 in such manner that, at any time, emissions from the combustion stack serving such battery exceed a particulate concentration of 0.015 grains per dry standard cubic foot. [§2105.21.f.1 and Consent Decree, Civil Action No. 12-1029, Section IV.A.1.a]

t. The permittee shall not operate, or allow to be operated, Coke Oven Battery No. 1 in such manner that, at any time, emissions from the combustion stack equal or exceed an opacity of 20% for a period or periods aggregating in excess of three (3) minutes in any 60 minute period. [§2105.21.f.3; and Consent Decree, Civil Action No. 12-1029 Section IV.A.1.b]

u. The permittee shall not operate, or allow to be operated, Coke Oven Battery No. 1 in such manner that, at any time, emissions from the combustion stack equal or exceed an opacity of 60% at any time. [§2105.21.f.4 and Consent Decree, Civil Action No. 12-1029 Section IV.A.1.c]

v. The permittee shall not discharge to the atmosphere any emissions from any battery stack that exhibit an opacity greater than the following applicable limits: [§2103.12.h.6; §63.7296(a) and (b)]

1) Daily average of 15 percent opacity for a battery on a normal coking cycle.
2) Daily average of 20 percent opacity for a battery on battery-wide extended coking.

w. The permittee shall submit a notification of compliance status containing the results of the COMS performance test for battery stacks within 30 calendar days following the completion of the compliance demonstration. For each particulate matter emission limitation that applies to you, the permittee shall submit a notification of compliance status containing the results of the performance test within 60 calendar days following completion of the performance test according to §63.10(d). [§2103.12.h.6; §63.7326(d)]

x. Emission limits for the combustion stack of Coke Battery No.1 shall not exceed the emission limitations in Table V-A-1. [§2105.21.f., §2105.21.h.3 and §2103.12.a.2.B]

TABLE V-A-1
Emission Limitations for Battery No. 1 Combustion Stack

POLLUTANT	HOURLY EMISSION LIMIT (lb/hr)	ANNUAL EMISSION LIMIT (tons/year)*
PM, filterable	6.2	27.2
PM-10, filterable	6.0	26.3
SO_2	36.6	160.3
CO	66.98	293.32
NO_X	204.71	896.62
VOC	6.47	28.33

*A year is defined as any consecutive 12-month period.

2. Testing Requirements:

a. The permittee shall have particulate emissions stack tests performed on the combustion stack of Coke Battery No. 1 at least once every two years to demonstrate compliance with the mass emission standard in Condition V.A.1.s above. Particulate emission tests shall be conducted according to the methodology specified in 40 CFR 60, Appendix A, Methods 1 through 5. The permittee shall submit a stack test protocol to the Department at least 21 days prior to the test dates. During each stack test performed, simultaneous visible emission evaluations shall be conducted according to the methodology specified in 40 CFR 60, Appendix A, Method 9, except for the provisions of Section 2.5 of Method 9. [§2108.02.b]

b. The permittee shall have sulfur dioxide (SO_2) emissions stack tests performed on the combustion stack of Coke Battery No. 1 at least once every two years to demonstrate compliance with the mass emission limitations for each combustion stack in Table V-A-1 above. SO_2 emission tests shall be conducted according to Method 6, 6A, 6B, or 6C specified in 40 CFR 60, Appendix A. The permittee shall submit a stack test protocol to the Department at least 21 days prior to the test dates. [§2108.02.b]

c. The permittee shall have nitrogen oxide (NO_X) emissions stack tests performed on the combustion stack of Coke Battery No. 1 at least once every two years to demonstrate compliance with the mass emission limitation for each combustion stack in Table V-A-1 above. NO_X emission tests shall be conducted according to one of the applicable methods (Method 7, 7A, 7B, 7C, 7D or 7E) specified in 40 CFR 60, Appendix A. The permittee shall submit a stack test protocol to the Department at least 21 days prior to the test dates. [§2105.06.b.4.B]

d. The Department reserves the right to require additional emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Site Level Condition IV.13 entitled “Emissions Testing.” (§2103.12.h.1)

3. Monitoring Requirements (§2102.04.e):

a. The permittee shall: [§63.308]

1) Inspect the collecting main for leaks at least once daily according to the procedures in Method 303 in 40 CFR 63, Appendix A; [§63.308(a)]
2) Temporarily seal any leak in the collecting main as soon as possible after detection, but no later than 4 hours after detection of the leak; [§63.308(c)]
3) Initiate a collecting main repair as expeditiously as possible, but no later than 5 calendar days after initial detection of the leak. The repair shall be completed within 15 calendar days after initial detection of the leak unless an alternative schedule is approved by the Department. [§63.308(d)]

b. Except as otherwise provided, a daily performance test shall be conducted each day, 7 days per week for Coke Battery No. 1, the results of which shall be used in accordance with procedures specified in 40 CFR 63, Subpart L to determine compliance with each of the applicable visible emission limitations for coke oven doors, topside port lids, offtake systems, and charging operations. [§63.309(a)]

1) Each performance test is to be conducted according to the procedures and requirements in Method 303 or 303A in Appendix A to 40 CFR Part 63 or Methods 9 and 22 in Appendix A to 40 CFR Part 60 (where applicable).
2) Each performance test is to be conducted by a certified observer.
3) The certified observer shall complete any reasonable safety training program offered by the permittee prior to conducting any performance test at a coke oven battery.
4) Except as otherwise provided in §63.309(a)(5), the permittee shall pay an inspection fee to the Department each calendar quarter, as specified in §63.309(a)(4), to defray the costs of the daily performance tests required in condition V.A.3.b above.

c. If the permittee pushes and charges only at night, then the permittee must, at its option, change the schedule and charge during daylight hours or provide adequate lighting so that visible emission inspections can be made at night. “Adequate lighting” shall be determined by the Department. [§63.309(a)]

d. The certified observer shall conduct each performance test according to the following requirements: [§63.309(c)]

1) The certified observer shall conduct one run each day to observe and record visible emissions from each coke oven door, topside port lid, and offtake system on Coke Battery No. 1. The certified observer also shall conduct five runs to observe and record the seconds of visible emissions per charge for five consecutive charges on Coke Battery No. 1. The observer may perform additional runs as needed to obtain and record a visible emissions value (or set of values) for an emission point that is valid under Method 303 or Method 303A in Appendix A to 40 CFR Part 63. Observations from fewer than five consecutive charges shall constitute a valid set of charging observations only in accordance with the procedures and conditions specified in Sections 3.8 and 3.9 of Method 303 in Appendix A.

2) If a valid visible emissions value (or set of values) is not obtained for a performance test, there is no compliance determination for that day. Compliance determinations will resume on the next day that a valid visible emissions value (or set of values) is obtained.

3) After each performance test, the certified observer shall check and record the collecting main pressure according to the procedures in Section 6.3 of Method 303 in Appendix A.

a) The permittee shall demonstrate pursuant to Method 303 in Appendix A the accuracy of the pressure measurement device upon request of the certified observer;
b) The permittee shall not adjust the pressure to a level below the range of normal operation during or prior to the inspection;

4) In no case shall the permittee knowingly block a coke oven door, or any portion of a door for the purpose of concealing emissions or preventing observations by the certified observer.

e. Using the observations obtained from each performance test, the Department shall compute and record, in accordance with the procedures and requirements of Method 303 or 303A in Appendix A to this part, for each day of operations on which a valid emissions value (or set of values) is obtained: [§63.309(d)]

1) The 30-run rolling average of the percent leaking coke oven doors, topside port lids, and offtake systems on each coke oven battery, using the equations in Sections 4.5.3.2, 5.6.5.2, and 5.6.6.2 of Method 303 (or Section 3.4.3.2 of Method 303A) in Appendix A;
2) For by-product coke oven battery charging operations, the logarithmic 30-day rolling average of the seconds of visible emissions per charge for each battery, using the equation in section 3.9 of Method 303 in Appendix A;

f. The certified observer shall make available to the Department as well as to the permittee, a copy of the daily inspection results by the end of the day and shall make available the calculated rolling average for each emission point to the permittee as soon as practicable following each performance test. The information provided by the certified observer is not a compliance determination. For the purpose of notifying the permittee of the results obtained by a certified observer, the person does not have to be certified. [§63.309(e)]

g. Compliance shall not be determined more often than the schedule provided for performance tests in conditions V.A.3.b through V.A.3.d above. If additional valid emissions observations are obtained (or in the case of charging, valid sets of emission observations), the arithmetic average of all valid values (or valid sets of values) obtained during the day shall be used in any computations performed to determine compliance under paragraph V.A.3.e above or determinations under conditions V.A.6.b through V.A.6.e below. [§63.309(f)]

h. For a flare installed to meet the requirements of Condition V.A.1.d above: [§63.309(h)]

1) Compliance with the provisions in Condition V.A.1.f above (visible emissions from flares) shall be determined using Method 22 in Appendix A to 40 CFR Part 60 of this chapter, with an observation period of 2 hours; and
2) Compliance with the provisions in Condition V.A.1.e above (flare pilot light) shall be determined using a thermocouple or any other equivalent device.

i. No observations obtained during any program for training or for certifying observers under 40 CFR 63, Subpart L shall be used to determine compliance with the requirements of Subpart L or any other federally enforceable standard. [§63.309(i)]

j. For the coke oven battery, the permittee shall install, operate, and maintain a COMS to measure

and record the opacity of emissions at all times exiting the coke oven battery stack S01 according to the requirements in Conditions V.A.3.j.1) through V.A.3.j.5) below: [§2103.12.h.6.; §2103.12.i; §63.7330(e), §63.7331(j); §63.7331(c); §63.7331(d)]

1) Install, operate, and maintain each COMS according to the requirements in §63.8(e) and Performance Specification 1 in 40 CFR Part 60, Appendix B. Identify periods when the COMS is out-of-control, including any periods that the COMS fails to pass a daily calibration drift assessment, quarterly performance audit, or annual zero alignment audit.
2) Conduct a performance evaluation of each COMS according to the requirements in §63.8 and Performance Specification 1 in Appendix B to 40 CFR Part 60;
3) Develop and implement a quality control program for operating and maintaining each COMS according to the requirements in §63.8(d). At minimum, the quality control program must include a daily calibration drift assessment, quarterly performance audit, and an annual zero alignment audit of each COMS;
4) Each COMS must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period. You must reduce the COMS data as specified in §63.8(g)(2).
5) Determine and record the hourly and daily (24-hour) average opacity according to the procedures in §63.7324(b) using all the 6-minute averages collected for periods during which the COMS is not out-of-control.

k. The permittee shall operate, maintain and calibrate the COMS in accordance with the COMS QA/QC Plan developed for the coke oven battery combustion stack. The permittee shall also maintain on-site at the facility reasonable quantities of spare parts to effectuate repair of the COMS. The COMS shall be repaired, recalibrated and returned to service within three working days of any event which causes the COMS damage, malfunction or failure. The repaired or replaced COMS shall be audited within five working days after placing it back into operation. [Consent Decree, Civil Action No. 12-1029, Sections V.A.1 & V.A.2; §2103.12.h.6]

l. Except for monitor malfunctions, associated repairs, and required quality assurance or control activities (including as applicable, calibration checks and required zero and span adjustments), the permittee shall monitor continuously (or collect data at all required intervals) at all times the affected source is operating. [§2103.12.h.6.; §2103.12.i; §63.7332(a)]

m. The permittee shall not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels, or in fulfilling a minimum data availability requirement, if applicable. The permittee shall use all the data collected during all other periods in assessing compliance. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitor to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. [§2103.12.h.6; §63.7332(b)]

n. The permittee shall demonstrate continuous compliance for the by-product coke oven battery subject to the opacity limit for combustion stacks in Condition V.A.1.v.1) and V.A.1.v.2) above by meeting the requirements in Conditions V.A.3.n.1) and V.A.3.n.2) below: [§2103.12.h.6; §2103.12.i; §63.7333(e)]

1) Maintaining the daily average opacity at or below 15 percent for a battery on a normal coking cycle or 20 percent for a battery on battery-wide extended coking; and
2) Operating and maintaining a COMS and collecting and reducing the COMS data according to

Condition V.A.3.j above

o. In the event that the COMS becomes non-operational or otherwise fails to provide certifiably accurate monitoring results for a period in excess of 48 hours, and until such time as it is repaired, adjusted and recalibrated, or a new COMS is installed and properly adjusted calibrated and placed into continuous operation, the permittee shall conduct visible emissions observations of the coke oven battery combustion stack as follows: [Consent Decree, Civil Action No. 12-1029, Section V.A.3; §2103.12.h.6]

1) Visible emissions observations shall be conducted by a certified observer;
2) Visible emissions observations shall be conducted for three consecutive daylight hours on each day at the coke oven battery combustion stack;
3) Visible emissions observation shall be conducted and recorded in accordance with the methods and procedures specified in 40 CFR 60, Appendix A, Method 9 as modified by the ACHD Source Testing Manual, Chapter 9;
4) Once a visible emissions observation is initiated, it shall continue for the full three-hour duration to its final conclusion, unless prevented by a force majeure event (an event beyond the control of the permittee and that could not have been prevented by reasonable due diligence on the part of the permittee).

p. Compliance with the opacity limit in condition V.A.1.r above shall be determined by conducting at least two (2) soaking observations each calendar day from a position where the observer can note the time the oven is dampered off and, following the two minute exclusion, read the uncombusted emissions from the open standpipe in accordance with the methods and procedures specified in 40 CFR 60, Appendix A, Method 9, except that if it is an overcast day or if the plume is in a shadow, the observer need not be positioned with his back to the sun. In the event that two daily soaking observations could not be obtained due to outage, malfunction, breakdown, unacceptable conditions to conduct observations, or other extraordinary circumstances as supported by appropriate justification, permittee shall notify the Department within seven (7) days. This requirement shall automatically terminate when the Department promulgates a soaking emissions standard rule pursuant to its rulemaking authority and such rule becomes effective. [Administrative Consent Order and Agreement dated June 19, 2012 Sections V.A.1 & V.A.2; §2103.12.h.6; §2103.12.i;]

q. The permittee shall perform the coke oven inspection, recording, repair and maintenance activities contained in the Elevated Opacity Response Protocol included in Consent Decree, Civil Action No. 12-1029, Section IV.A.2.a and attached thereto as Appendix 2. Which Consent Decree is incorporated into this permit by reference? [§2105.03; Consent Decree, Civil Action No. 12-1029, Section IV.A.2.a; §2103.12.h.6; §2103.12.i;]

r. The permittee shall perform the routine heating practices contained in the Battery Heating Protocol included in Consent Decree, Civil Action No. 12-1029, Section IV.A.2.b and attached thereto as Appendix 3. Which Consent Decree is incorporated into this permit by reference. [Consent Decree, Civil Action No. 12-1029 Section IV.A.2.b; §2103.12.h.6; §2103.12.i]

s. The permittee shall implement the Coke Oven Proactive Maintenance Program included in Consent Decree, Civil Action No. 12-1029, Section IV.A.2.b and attached thereto as Appendix 4. Which Consent Decree is incorporated into this permit by reference. [Consent Decree, Civil Action No. 12-1029 Section IV.A.2.c; §2103.12.h.6; §2103.12.i]

t. In addition to the Coke Oven Proactive Maintenance Program, the permittee shall continue to evaluate coke oven wall conditions and, as necessary, perform additional end flue repairs and/or ceramic welding. [Consent Decree, Civil Action No. 12-1029 Section IV.A.3; §2103.12.h.6; §2103.12.i]

4. Record Keeping Requirements:

a. Record the time and date a leak in the collecting main is first observed, the time and date the leak is temporarily sealed, and the time and date of repair. [§2103.12.j; §63.308(b)]

b. The permittee shall maintain files of all required information in a permanent form suitable for inspection at an onsite location for at least 1 year and must thereafter be accessible within 3 working days to the Department for the time period specified in 40 CFR 70.6(a)(3)(ii)(B). Copies of the work practice plan developed under conditions V.A.6.b through V.A.6.e below and the startup, shutdown, and malfunction plan developed under conditions V.A.6.f through V.A.6.l below shall be kept onsite at all times. The permittee shall maintain the following information: [§2103.12.j; §63.311(f)]

1) A copy of the work practice plan required by condition V.A.6.b below and any revision to the plan;
2) If the permittee is required under condition V.A.6.d below to implement the provisions of a work practice plan for a particular emission point, the following records regarding the implementation of plan requirements for that emission point during the implementation period;
   a) Copies of all written and audiovisual materials used in the training, the dates of each class, the names of the participants in each class, and documentation that all appropriate personnel have successfully completed the training required under condition V.A.6.c.1) below;
   b) The records required to be maintained by the plan provisions implementing condition V.A.6.c.6) below;
   c) Records resulting from audits of the effectiveness of the work practice program for the particular emission point, as required in conditions V.A.6.c.2)a), V.A.6.c.3)a), V.A.6.c.4)a), and V.A.6.c.5)a) below; and
   d) If the plan provisions for coke oven doors must be implemented, records of the inventory of doors and jambs as required under condition V.A.6.c.2)f) below; and
3) The design drawings and engineering specifications for the bypass/bleeder stack flare system or approved alternative control device or system as required under conditions V.A.1.b through V.A.1.d above.
4) Records specified in condition V.A.6.g regarding the basis of each malfunction notification.

c. Records required to be maintained and reports required to be filed with the Administrator under this subpart shall be made available in accordance with the requirements of this condition by the owner or operator to the authorized collective bargaining representative of the employees at a coke oven battery, for inspection and copying. [§63.311(g)]

1) Requests under Condition V.A.4.c above shall be submitted in writing, and shall identify the records or reports that are subject to the request with reasonable specificity;
2) The permittee shall produce the reports for inspection and copying within a reasonable period of time, not to exceed 30 days. A reasonable fee may be charged for copying (except for the first copy of any document), which shall not exceed the copying fee charged by the

Administrator under part 2 of Chapter 1;

3) Nothing in Condition V.A.4.c above shall require the production for inspection or copying of any portion of a document that contains trade secrets or confidential business information that the Administrator would be prohibited from disclosing to the public under part 2 of this chapter; and
4) The inspection or copying of a document under Condition V.A.4.c above shall not in any way affect any property right of the owner or operator in such document under laws for the protection of intellectual property, including the copyright laws.

d. The permittee shall maintain a record of internal reports which form the basis of each malfunction notification under paragraph V.A.6.h below. [§63.310(f)]

e. The permittee shall keep the following records: [§2103.12.j; §63.7342(a)]

1) A copy of each notification and report that was submitted to comply with 40 CFR subpart CCCCC, including all documentation supporting any initial notification or notification of compliance status that you submitted, according to the requirements in §63.10(b)(2)(xiv).
2) The records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.
3) Records of performance tests, performance evaluations, and opacity observations as required in §63.10(b)(2)(viii).

f. For each COMS or CEMS, the permittee shall keep the following records. [§2103.12.j; §63.7342(b)]

1) The permittee shall maintain the following records described in conditions V.A.4.f.1)a) through V.A.4.f.1)f) [§63.10(b)(2)(vi) through (xi)]:

a) Each period during which the COMS is malfunctioning or inoperative (including out-of-control periods);
b) All required measurements needed to demonstrate compliance with opacity standards in V.A.1.v.1) and V.A.1.v.2) (including, but not limited to, 6-minute averages of COMS data, raw performance testing measurements, and raw performance evaluation measurements, that support data that the source is required to report);
c) All results of performance tests, COMS performance evaluations, and opacity and visible emission observations;
d) All measurements as may be necessary to determine the conditions of performance tests and performance evaluations;
e) All COMS calibration checks; and
f) All adjustments and maintenance performed on COMS.

2) Monitoring data for COMS during a performance evaluation as required in §63.6(h)(7)(i) and (ii).
3) Previous (that is, superseded) versions of the performance evaluation plan as required in §63.8(d)(3).
4) Records of the date and time that each deviation started and stopped and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.

g. The permittee shall maintain the following records for the COMS [Consent Decree, Civil Action No. 12-1029 Section V.A.4]

1) QA/QC procedures performed in accordance with condition V.A.3.k
2) Each time period during which the COMS was inoperative, except for zero and span drift checks.
3) The nature of repairs or adjustments performed on the COMS.
4) Identification of:
   a) Each hour during the reporting period that the opacity exceeded the standards in V.A.1.t and V.A.1.u;
   b) An identification of which standard was exceeded;
   c) The total time during the hour identified that the standard was exceeded; and
   d) The maximum opacity measured during the hour.
5) The daily COM charts; and
6) The result of all certified visible emissions observations conducted.

h. The permittee shall make available, upon request, such records that are deemed necessary to determine the conditions under which visual observations were made and shall provide evidence indicating proof of current visible observer emission certification. [§63.6(h)(6); §63.7342(c); §2103.12.j]

i. As specified in §63.10(b)(1), the permittee shall keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [§2103.12.j; §63.7343(b)]

j. The permittee shall keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). The permittee can keep the records offsite for the remaining 3 years. [§2103.12.h.6; §63.7343(c)]

k. For the by-product coke oven battery, the permittee must demonstrate continuous compliance with the operation and maintenance requirements in V.A.6.m below by adhering at all times to the plan requirements and recording all information needed to document conformance. [§2103.12.j; §63.7335(a)]

l. The permittee shall maintain a current copy of the operation and maintenance plans required in V.A.6.m onsite and available for inspection upon request. The plans shall be kept for the life of the affected source or until the affected source is no longer subject to the requirements of 40 CFR Part 63, Subpart CCCCC. [§2103.12.j; §63.7335(d)]

m. The permittee must demonstrate continuous compliance to the work practice standard for soaking in V.A.6.n below, by maintaining records that document conformance with requirements in V.A.6.n.1) through V.A.6.n.5) below. [§2103.12.j; §63.7334(d)]

n. The permittee shall keep and maintain the records required under the Elevated Opacity Response Protocol, the Battery Heating Protocol and the Coke Oven Proactive Maintenance Program included in Consent Decree, Civil Action No. 12-1029, Section IV.A.2.a through c. and attached thereto as Appendices 2 through 4. Which Consent Decree is incorporated into this permit by reference. [Consent Decree, Civil Action No. 12-1029 Section X.A.1.a.]

o. The permittee shall keep and maintain copies of reports required under V.A.5.b, below and any document or printed data relied upon by such report. [Consent Decree, Civil Action No. 12-1029 Section X.A.1.d.]

5. Reporting Requirements:

a. Quarterly written reports of the following information during each month in the quarter shall be submitted to the Department in accordance with General Condition III.15.e above: [§2103.12.k]

1) For Coke Battery No. 1, the daily average for the month of:
   a) Coal charged, in tons;
   b) Coke produced, in tons;
   c) Total coke oven gas produced; in MMCF;
   d) Quench water used, in gallons;
   e) Elemental sulfur produced, in tons;
   f) Sulfur content of coal, in percent; and
   g) Sulfur content of coke, in percent.

2) For all periods during which contaminated quench water was used:
   a) The starting and ending dates and times;
   b) The total time of each period, and total for the month, to the nearest tenth of an hour;
   c) The corresponding Department Breakdown Number;
   d) The average flow rates of contaminated water to both the quench towers and the water treatment plant during the period, each in gallons per minute; and
   e) The reason(s) or cause(s) for each period.

b. The permittee shall submit quarterly results of all visible emissions observations conducted during the reporting period; copies of all visible emissions observations conducted during the reporting period; and a completed Combustion Stack Summary Opacity Data Form for each month in the reporting period. [§2103.12.k; Consent Decree, Civil Action No. 12-1029, Section V.A.5]

c. The permittee shall include the following information in the semiannual compliance certification: [§63.311(d)]
1) Certification, signed by the permittee, that no coke oven gas was vented, except through the bypass emergency stack flare system during the reporting period or that a venting report has been submitted according to the requirements in condition V.A.5.d .
2) Certification, signed by the permittee, that a startup, shutdown, or malfunction event did not occur for the coke oven battery during the reporting period or that a startup, shutdown, and malfunction event did occur and a report was submitted according to the requirements in condition V.A.6.f below; and
3) Certification, signed by the permittee, that work practices were implemented if applicable under conditions V.A.6.b through V.A.6.e below.

d. The permittee shall report any venting of coke oven gas through a bypass/bleeder stack that was not vented through the bypass/bleeder stack flare system to the Department as soon as practicable but no later than 24 hours after the beginning of the event. A written report shall be submitted within 30 days of the event and shall include a description of the event and, if applicable, a copy of the notification for a hazardous substance release. [§63.311(e)]

e. The permittee shall report each instance in which each emission limitation in Conditions V.A.1.v and V.A.1.w was not met. This includes periods of startup, shutdown, and malfunction. The permittee shall also report each instance in which the permittee did not meet each work practice standard or operation and maintenance requirement in Conditions V.A.6.n, V.A.6.o and V.A.6.p.

These instances are deviations from the emission limitations (including operating limits), work practice standards, and operation and maintenance requirements of 40 CFR Part 63, Subpart CCCCC. These deviations must be reported according to the requirements in V.A.5.h through V.A.5.l below. [§2103.12.k; §63.7336(a)]

f. During periods of startup, shutdown, and malfunction, the permittee must operate in accordance with the startup, shutdown, and malfunction plan. [§2103.12.k.; §63.7336(b)]

1) Consistent with §63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Department's satisfaction that you were operating in accordance with the startup, shutdown, and malfunction plan.
2) The Department will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in §63.6(e).

g. The permittee shall submit all of the notifications in the following that apply by the dates specified: [§2103.12.k.; §63.7340(a)]

1) Visible Opacity and Emissions Observation Notification. [§63.6(h)(4)];
2) Initial Opacity and Visible Emissions Observations. [§63.6(h)(5)];
3) Notification of Performance Test. [§63.7(b)];
4) Quality Assurance Program. [§63.7 (c)];
5) CEMS Performance Evaluation. [§63.8(e)];
6) Requests for Use of Alternative Monitoring Procedure. [§63.8(f)(4)];
7) Initial Notifications. [§63.9(b)];
8) Requests for Extension of Compliance. [§63.9(c)];
9) Notification of Special Compliance Requirements §63.9(d);
10) Notification of Performance Test. [§63.9(e)];
11) Notification of Opacity and Visible Emissions Observations. [§63.9(f)];
12) Additional Notification Requirements for Sources with CEMS. [§63.9(g)]; and
13) Notification of Compliance Status. [§63.9(h)].

h. Unless the Department has approved a different schedule, the permittee must submit quarterly compliance reports for battery stacks according to the requirements in V.A.5.h.1) through V.A.5.h.2) below: [§2103.12.k.; §63.7341(a)]

1) Each quarterly compliance report for battery stacks shall be submitted in accordance with General Condition III.15 above.
2) All quarterly compliance reports for battery stacks must be postmarked or delivered no later than one calendar month following the end of the quarterly reporting period.

i. Each quarterly compliance report must provide information on compliance with the emission limitations for battery stacks in V.A.1.v above. The reports must include the information in Conditions V.A.5.j.1) through V.A.5.j.3) below; and as applicable, Conditions V.A.5.j.4) through V.A.5.j.8) below. [§2103.12.k; §63.7341(b)]

j. Each semi-annual compliance report must provide information on compliance with the emission limitations, work practice standards, and operation and maintenance requirements for all affected sources except battery stacks. The reports must include the information V.A.5.j.1) through V.A.5.j.3), and as applicable, Conditions V.A.5.j.4) through V.A.5.j.8) below. [§2103.12.k;

§63.7341(c)]

1) Company name and address.
2) Statement by a responsible official, with the official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.
3) Date of report and beginning and ending dates of the reporting period.
4) If there was a startup, shutdown, or malfunction during the reporting period and the permittee took actions consistent with the startup, shutdown, and malfunction plan, the compliance report must include the information in §63.10(d)(5)(i).
5) If there were no deviations from the continuous compliance requirements in V.A.3.n for battery stacks, a statement that there were no deviations from the emission limitations during the reporting period.
6) If there were no periods during which a continuous monitoring system (including COMS, continuous emission monitoring system (CEMS), or CPMS) was out-of-control as specified in §63.8(c)(7), a statement that there were no periods during which a continuous monitoring system was out-of-control during the reporting period.
7) For each deviation from an emission limitation in 40 CFR 63, Subpart CCCCC and for each deviation from the requirements for work practice standards in this 40 CFR Part 63, Subpart CCCCC that occurs at an affected source where the permittee is not using a continuous monitoring system (including a COMS, CEMS, or CPMS) to comply with the emission limitations in 40 CFR 63 Subpart CCCCC, the compliance report must contain the information in Conditions V.A.5.j.4), V.A.5.j.7)a) and V.A.5.j.7)b) below. This includes periods of startup, shutdown, and malfunction.

    a) The total operating time of each affected source during the reporting period.
    b) Information on the number, duration, and cause of deviations (including unknown cause, if applicable) as applicable and the corrective action taken.

8) For each deviation from an emission limitation where the permittee is using a continuous monitoring system (including COMS, CEMS, or CPMS) to comply with the emission limitation 40 CFR 63, Subpart CCCCC, the permittee must include the information in Conditions V.A.5.j.4), V.A.5.j.8)a) through V.A.5.j.8)l) below. This includes periods of startup, shutdown, and malfunction.

    a) The date and time that each malfunction started and stopped.
    b) The date and time that each continuous monitoring system (including COMS, CEMS, or CPMS) was inoperative, except for zero (low-level) and high-level checks.
    c) The date, time, and duration that each continuous monitoring system (including COMS, CEMS, or CPMS) was out-of-control, including the information in §63.8(c)(8).
    d) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.
    e) A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.
    f) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.
    g) A summary of the total duration of continuous monitoring system downtime during the reporting period and the total duration of continuous monitoring system downtime as a percent of the total source operating time during the reporting period.
    h) An identification of each HAP that was monitored at the affected source.

i) A brief description of the process units.
j) A brief description of the continuous monitoring system.
k) The date of the latest continuous monitoring system certification or audit.
l) A description of any changes in continuous monitoring systems, processes, or controls since the last reporting period.

k. If the permittee had a startup, shutdown, or malfunction during the quarterly reporting period that was not consistent with the startup, shutdown, and malfunction plan, the permittee must submit an immediate startup, shutdown, and malfunction report according to the requirements in §63.10(d)(5)(ii). [§2103.12.k; §63.7341(d)]

l. If the permittee submits a compliance report for an affected source along with, or as part of, the quarterly monitoring report required by 40 CFR 70.6(a)(3)(iii)(A), and the compliance report includes all the required information concerning deviations from any emission limitation or work practice standard in 40 CFR Part 63, Subpart CCCCC, submission of the compliance report satisfies any obligation to report the same deviations in the quarterly monitoring report. However, submission of a compliance report does not otherwise affect any obligation you may have to report deviations from permit requirements to the Department. [§2103.12.k; §63.7341(e)]

m. Reporting instances of non-compliance or malfunction in accordance with condition V.A.5.d above does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.7 above, if appropriate. (§2103.12.k.1; §2108.01.c)

6. Work Practice Standards:

a. Coke Oven Battery No. 1, the pushing emission control device and the quench tower shall be properly maintained and operated at all times according to good engineering and air pollution control practices [§2105.03 and RACT Plan 233]

b. The permittee shall prepare and submit to the Department a written emission control work practice plan for Coke Oven Battery No. 1. The plan shall be designed to achieve compliance with visible emission limitations for coke oven doors, topside port lids, offtake systems, and charging operations under 40 CFR 63, Subpart L. [§63.306(a)]

1) The work practice plan must address each of the topics specified in paragraph V.A.6.c below in sufficient detail and with sufficient specificity to allow the Department to evaluate the plan for completeness and enforceability.
2) The Department may require revisions to the initial plan only where the Department finds either that the plan does not address each subject area listed in paragraph V.A.6.c below for each emission point subject to a visible emission standard under Condition V.A.1.l, or that the plan is unenforceable because it contains requirements that are unclear.
3) During any period of time that the permittee is required to implement the provisions of a plan for a particular emission point, the failure to implement one or more obligations under the plan and/or any recordkeeping requirement(s) under paragraph V.A.4.b.2) above for the emission point during a particular day is a single violation.

c. The permittee shall organize the work practice plan to indicate clearly which parts of the plan pertain to each emission point subject to visible emission standards under 40 CFR 63, Subpart L. Each of the following provisions, at a minimum, shall be addressed in the plan: [§63.306(b)]

1) An initial and refresher training program for all coke plant operating personnel with responsibilities that impact emissions, including contractors, in job requirements related to emission control and the requirements of 40 CFR 63, Subpart L, including work practice requirements. Contractors with responsibilities that impact emission control may be trained by the permittee or by qualified contractor personnel; however, the permittee shall ensure that the contractor training program complies with the requirements of Condition V.A.6.c above. The training program in the plan must include: [§63.306(b)(1)]

   a) A list, by job title, of all personnel that are required to be trained and the emission point(s) associated with each job title;
   b) An outline of the subjects to be covered in the initial and refresher training for each group of personnel;
   c) A description of the training method(s) that will be used (e.g., lecture, video tape);
   d) A statement of the duration of initial training and the duration and frequency of refresher training;
   e) A description of the methods to be used at the completion of initial or refresher training to demonstrate and document successful completion of the initial and refresher training; and
   f) A description of the procedure to be used to document performance of plan requirements pertaining to daily operation of the coke oven battery and its emission control equipment, including a copy of the form to be used, if applicable, as required under the plan provisions implementing Condition V.A.6.c.6) below.

2) Procedures for controlling emissions from coke oven doors, including: [§63.306(b)(2)]

   a) A program for the inspection, adjustment, repair, and replacement of coke oven doors and jambs, and any other equipment for controlling emissions from coke oven doors, including a defined frequency of inspections, the method to be used to evaluate conformance with operating specifications for each type of equipment, and the method to be used to audit the effectiveness of the inspection and repair program for preventing exceedances;
   b) Procedures for identifying leaks that indicate a failure of the emissions control equipment to function properly, including a clearly defined chain of command for communicating information on leaks and procedures for corrective action;
   c) Procedures for cleaning all sealing surfaces of each door and jamb, including identification of the equipment that will be used and a specified schedule or frequency for the cleaning of sealing surfaces;
   d) For batteries equipped with self-sealing doors, procedures for use of supplemental gasketing and luting materials, if the permittee elects to use such procedures as part of the program to prevent exceedances;
   e) For batteries equipped with hand-luted doors, procedures for luting and reluting, as necessary to prevent exceedances;
   f) Procedures for maintaining an adequate inventory of the number of spare coke oven doors and jambs located onsite; and
   g) Procedures for monitoring and controlling collecting main back pressure, including corrective action if pressure control problems occur.

3) Procedures for controlling emissions from charging operations, including: [§63.306(b)(3)]

   a) Procedures for equipment inspection, including the frequency of inspections, and

replacement or repair of equipment for controlling emissions from charging, the method to be used to evaluate conformance with operating specifications for each type of equipment, and the method to be used to audit the effectiveness of the inspection and repair program for preventing exceedances;
b) Procedures for ensuring that the larry car hoppers are filled properly with coal;
c) Procedures for the alignment of the larry car over the oven to be charged;
d) Procedures for filling the oven (e.g., procedures for staged or sequential charging);
e) Procedures for ensuring that the coal is leveled properly in the oven; and
f) Procedures and schedules for inspection and cleaning of offtake systems (including standpipes, standpipe caps, goosenecks, dampers, and mains), oven roofs, charging holes, topside port lids, the steam supply system, and liquor sprays.

4) Procedures for controlling emissions from topside port lids, including: [§63.306(b)(4)]

a) Procedures for equipment inspection and replacement or repair of topside port lids and port lid mating and sealing surfaces, including the frequency of inspections, the method to be used to evaluate conformance with operating specifications for each type of equipment, and the method to be used to audit the effectiveness of the inspection and repair program for preventing exceedances; and
b) Procedures for sealing topside port lids after charging, for identifying topside port lids that leak, and procedures for resealing.

5) Procedures for controlling emissions from offtake system(s) on by-product coke oven batteries, including: [§63.306(b)(5)]

a) Procedures for equipment inspection and replacement or repair of offtake system components, including the frequency of inspections, the method to be used to evaluate conformance with operating specifications for each type of equipment, and the method to be used to audit the effectiveness of the inspection and repair program for preventing exceedances;
b) Procedures for identifying offtake system components that leak and procedures for sealing leaks that are detected; and
c) Procedures for dampering off ovens prior to a push.

6) Procedures for maintaining, for each emission point subject to visible emission limitations in Condition V.A.1.l above, a daily record of the performance of plan requirements pertaining to the daily operation of the coke oven battery and its emission control equipment, including: [§63.306(b)(7)]
a) Procedures for recording the performance of such plan requirements; and
b) Procedures for certifying the accuracy of such records by the permittee.

7) Any additional work practices or requirements specified by the Department according to condition V.A.6.e. [§63.306(b)(8)]

d. The permittee shall implement the provisions of the coke oven emission control work practice plan according to the following requirements: [§63.306(c)]

1) Implement the provisions of the work practice plan pertaining to a particular emission point following the second independent exceedance of the visible emission limitation for the emission point in any consecutive 6-month period, by no later than 3 days after receipt of

written notification of the second such exceedance from the certified observer. For the purpose of condition V.A.6.d.1), the second exceedance is ``independent'' if either of the following criteria is met:

a) The second exceedance occurs 30 days or more after the first exceedance;
b) In the case of coke oven doors, topside port lids, and offtake systems, the 29-run average, calculated by excluding the highest value in the 30-day period, exceeds the value of the applicable emission limitation; or
c) In the case of charging emissions, the 29-day logarithmic average, calculated in accordance with Method 303 in Appendix A to 40 CFR Part 63 by excluding the valid daily set of observations in the 30-day period that had the highest arithmetic average, exceeds the value of the applicable emission limitation.

2) Continue to implement such plan provisions until the visible emission limitation for the emission point is achieved for 90 consecutive days if work practice requirements are implemented pursuant to paragraph V.A.6.d.1) above. After the visible emission limitation for a particular emission point is achieved for 90 consecutive days, any exceedances prior to the beginning of the 90 days are not included in making a determination under paragraph V.A.6.d.1) above.

e. The permittee may be required to revise the work practice emission control plan according to the following provisions: [§63.306(d)]

1) The Department may request the permittee to review and revise as needed the work practice emission control plan for a particular emission point if there are 2 exceedances of the applicable visible emission limitation in the 6-month period that starts 30 days after the permittee is required to implement work practices under condition V.A.6.d of 40 CFR Part 63, Subpart L. In the case of a coke oven battery subject to visual emission limitations under 40 CFR Part 63, Subpart L, the second exceedance must be independent under the criteria in condition V.A.6.d.1) above.
2) The Department may not request the permittee to review and revise the plan more than twice in any 12 consecutive month period for any particular emission point unless the Department disapproves the plan according to the provisions in condition V.A.6.e.6) below. If the certified observer calculates that a second exceedance (or, if applicable, a second independent exceedance) has occurred, the certified observer shall notify the permittee. No later than 10 days after receipt of such a notification, the permittee shall notify the Department of any finding of whether work practices are related to the cause or the solution of the problem. This notification is subject to review by the Department according to the provisions in condition V.A.6.e.6) below.
3) If the certified observer calculates that a second exceedance (or, if applicable, a second independent exceedance) has occurred, the certified observer shall notify the permittee. No later than 10 days after receipt of such a notification, the permittee shall notify the Department of any finding of whether work practices are related to the cause or the solution of the problem. This notification is subject to review by the Department according to the provisions in condition V.A.6.e.6) below.
4) The permittee shall submit a revised work practice plan within 60 days of notification from the Department under condition V.A.6.e.1) above, unless the Department grants an extension of time to submit the revised plan.
5) If the Department requires a plan revision, the Department may require the plan to address a subject area or areas in addition to those in condition V.A.6.c above, if the Department

determines that without plan coverage of such an additional subject area, there is a reasonable probability of further exceedances of the visible emission limitation for the emission point for which a plan revision is required.

6) The Department may disapprove a plan revision required under condition V.A.6.e above if the Department determines that the revised plan is inadequate to prevent exceedances of the visible emission limitation in Condition V.A.1.l above for the emission point for which a plan revision is required or, in the case of a battery not subject to visual emission limitations under this subpart, other federally enforceable emission limitations for such emission point. The Department may also disapprove the finding that may be submitted pursuant to paragraph V.A.6.e.3) above if the Department determines that a revised plan is needed to prevent exceedances of the applicable visible emission limitations.

f. The permittee shall develop and implement according to condition V.A.6.g, a written startup, shutdown, and malfunction plan that describes procedures for operating the battery, including associated air pollution control equipment, during a period of a startup, shutdown, or malfunction in a manner consistent with good air pollution control practices for minimizing emissions, and procedures for correcting malfunctioning process and air pollution control equipment as quickly as practicable. The provisions in paragraphs V.A.6.g through V.A.6.i below do not supersede the reporting requirements in §2108.01.b. & c. for the shutdown of control equipment and breakdowns. [§63.310(b)]

g. The permittee shall correct malfunctions as soon as practicable after their occurrence, in accordance with the plan. [§63.310(c)]

h. In order for the provisions of condition V.A.6.l below to apply with respect to the observation (or set of observations) for a particular day, notification of a startup, shutdown, or a malfunction shall be made by the permittee: [§63.310(d)]

1) If practicable, to the certified observer if the observer is at the facility during the occurrence; or
2) To the Department, in writing, within 24 hours of the occurrence first being documented by a company employee, and if the notification under condition V.A.6.h.1) above was not made, an explanation of why no such notification was made.

i. Within 14 days of the notification made under condition V.A.6.h above, or after a startup or shutdown, the permittee shall submit a written report to the applicable permitting authority that: [§63.310(e)]

1) Describes the time and circumstances of the startup, shutdown, or malfunction; and
2) Describes actions taken that might be considered inconsistent with the startup, shutdown, or malfunction plan.

j. To satisfy the requirements of this section to develop a startup, shutdown, and malfunction plan, the permittee may use the standard operating procedures manual for the battery, provided the manual meets all the requirements in conditions V.A.6.f through V.A.6.l below and is made available for inspection at reasonable times when requested by the Department. [§63.310(g)]

k. The Department may require reasonable revisions to a startup, shutdown, and malfunction plan, if the Department finds that the plan: [§63.310(h)]

1) Does not address a startup, shutdown, or malfunction event that has occurred;
2) Fails to provide for the operation of the source (including associated air pollution control equipment) during a startup, shutdown, or malfunction event in a manner consistent with

good air pollution control practices for minimizing emissions; or

3) Does not provide adequate procedures for correcting malfunctioning process and/or air pollution control equipment as quickly as practicable.

l. If the permittee demonstrates to the satisfaction of the Department that a startup, shutdown, or malfunction has occurred, then an observation occurring during such startup, shutdown, or malfunction shall not: [§63.310(i)]

1) Constitute a violation of relevant requirements of 40 CFR 63, Subpart L;
2) Be used in any compliance determination under conditions V.A.6.f through V.A.6.l above; or
3) Be considered for purposes of conditions V.A.6.b through V.A.6.e above, until the Department has resolved the claim that a startup, shutdown, or malfunction has occurred. If the Department determines that a startup, shutdown, or malfunction has not occurred, such observations may be used for purposes of conditions V.A.6.b through V.A.6.e above, regardless of whether the permittee further contests such determination. The permittee's receipt of written notification from the Department that a startup, shutdown, or malfunction has not occurred will serve, where applicable under paragraphs V.A.6.b through V.A.6.e above, as written notification from the certified observer that an exceedance has occurred.

m. The permittee shall prepare and operate at all times according to a written operation and maintenance plan for the general operation and maintenance of the coke oven battery. The plan must address, at a minimum, the following elements: [§2103.12.h.6; §2103.12.i; §63.7300(b)]

1) Frequency and method of recording underfiring gas parameters.
2) Frequency and method of recording battery operating temperature, including measurement of individual flue and cross-wall temperatures.
3) Procedures to prevent pushing an oven before it is fully coked.
4) Procedures to prevent overcharging and undercharging of ovens, including measurement of coal moisture, coal bulk density, and procedures for determining volume of coal charged.
5) Frequency and procedures for inspecting flues, burners, and nozzles.
6) Schedule and procedures for the daily washing of baffles

n. The permittee shall prepare and operate at all times according to a written work practice plan for soaking. The plan must include measures and procedures to: [§2103.12.h.6; §63.7294(a)]

1) Train topside workers to identify soaking emissions that require corrective actions.
2) Damper the oven off the collecting main prior to opening the standpipe cap.
3) Determine the cause of soaking emissions that do not ignite automatically, including emissions that result from raw coke oven gas leaking from the collecting main through the damper, and emissions that result from incomplete coking.
4) If soaking emissions are caused by leaks from the collecting main, take corrective actions to eliminate the soaking emissions. Corrective actions may include, but are not limited to, reseating the damper, cleaning the flushing liquor piping, using aspiration, putting the oven back on the collecting main, or igniting the emissions.
5) If soaking emissions are not caused by leaks from the collecting main, notify a designated responsible party. The responsible party must determine whether the soaking emissions are due to incomplete coking. If incomplete coking is the cause of the soaking emissions, you must put the oven back on the collecting main until it is completely coked or you must ignite the emissions.

o. As provided in §63.6(g), the permittee may request to use an alternative to the work practice standard for soaking in Condition V.A.6.n above. [§2103.12.h.6; §63.7294(b)]

p. The permittee shall be in compliance with the emission limitations, work practice standards, and operation and maintenance requirements of 40 CFR 63, Subpart CCCCC at all times, except during periods of startup, shutdown, and malfunction as defined in §63.2. [§2103.12.h.6; §63.7310(a)]

B. Process P001B: Battery No. 1 Pushing Emission Control (PEC) Baghouse

Process Description: Coke-side shed with stationary baghouse
Facility ID: P001B
Max. Design Rate: 300,000 acfm @ 70°F
Capacity: 300,000 acfm @ 70°F
Raw Materials: NA
Control Device: Eight Module Pulse-jet baghouse

As identified above, Process P001B consists of the following number and type of equipment: Coke-side Shed, Pushing Emission Control Baghouse (Battery No. 1), and Baghouse Dust Handling System (Battery No. 1)

1. Restrictions:

a. The permittee shall not operate, or allow to be operated, Battery No. 1 coke ovens unless there is installed on the battery a pushing emission control device which is designed to reduce fugitive emissions from pushing to the minimum attainable through the use of BACT, nor shall the permittee operate, or allow to be operated Battery No. 1 coke ovens in such manner that: [§2105.21.e]

1) At any time, the filterable particulate mass emission rate from the pushing emission control system device, for Battery No. 1 exceeds a rate determined by an outlet concentration of 0.010 grains per dry standard cubic foot. [§2105.21.e.2.H]

2) Fugitive pushing emissions or emissions from the pushing emission control system device outlet equal or exceed an opacity of 20% at any time, except if the Department determines in writing, upon written application from the person responsible for the coke ovens setting forth all information needed to make such determination, that such emissions are of only minor significance with respect to causing air pollution and do not prevent or interfere with the attainment or maintenance of any ambient air quality standard (any such determination shall be submitted as a proposed revision to Allegheny County's portion of the SIP). [§2105.21.e.4]

b. The permittee shall not operate, or allow to be operated Battery No. 1, unless the PEC System baghouse is properly installed, operated and maintained according to the following conditions, at all times: [§2105.03]

1) Emissions due to the pushing of Battery No. 1 coke ovens shall be vented through the PEC System baghouse.
2) The baghouse shall be equipped with automatic cleaning controls and instrumentation that shall continuously measure the differential pressure drop across the baghouse to within 5.0% of the measuring span of the device.
3) Cleaning, maintenance, etc. shall be conducted as necessary when the pressure drop goes beyond the specified range.

c. The permittee shall not discharge to the atmosphere emissions of filterable particulate matter from a control device applied to pushing emissions from battery 1 that exceeds 0.01 grain per dry standard cubic foot (gr/dscf). [§2103.12.h.6; §63.7290(a)(1)]

d. For the PEC System the permittee shall: [§2103.12.h.6; §63.7290(b)(3)]

1) Maintain the minimum daily average fan motor amperes 80 or above the minimum level established during the most recent performance test; or
2) Maintain the daily average volumetric flow rate at the inlet of the control device at or above the minimum level established during the initial performance test.

e. For each control device applied to pushing emissions and subject to the emission limit in V.B.1.c above, the permittee shall demonstrate continuous compliance by meeting the requirements in Conditions V.B.1.e.1) and V.B.1.e.2) below: [§2103.12.h.6; §63.7333 (a)]

1) Maintaining emissions of filterable particulate matter at or below 0.01 grain per dry standard cubic foot (gr/dscf); and
2) Conducting subsequent performance tests to demonstrate continuous compliance no less frequently than once every two years.

f. Emissions from the PEC baghouse outlet shall not exceed the emissions limitations in Table V-B-1 below: [§2105.21.e.2.H and §2103.12.a.2.B]

TABLE V-B-1
Emission Limitations for the PEC Baghouse

POLLUTANT	HOURLY EMISSION LIMIT (lb/hr)	ANNUAL EMISSION LIMIT (tons/year)*
PM, filterable	29.6	129.6
PM-10, filterable	29.6	129.6
$PM_{2.5}$	29.6	129.6

***A year is defined as any consecutive 12-month period.**

2. Testing Requirements:

a. The permittee shall have baghouse particulate emission stack tests conducted at least once every two years to demonstrate compliance with conditions V.B.1.a.1), V.B.1.c and V.B.1.f using EPA Methods No.1 through No.5 and performed according to Site Level Condition IV.13 [§2108.02 and §63.7321]

b. Visible emissions observations of the baghouse stack exhaust and fugitive pushing emissions shall be conducted at least once every two years, as specified in Section 109 of the Department's source testing manual, and be done simultaneously with the baghouse stack tests. [§2108.02]

c. The permittee shall conduct each performance test according to the requirements in Condition V.B.2.d below. [§2103.12.h.6; §63.7322(a)]

d. To determine compliance with the particulate matter emission limit in Condition V.B.1.c above, from a control device applied to pushing emissions where a coke-side shed is the capture system, use the following test methods and procedures: [§2103.12.h.6; §63.7322(b)]

1) Determine the concentration of particulate matter according to the following test methods in Appendix A to 40 CFR Part 60. [§2103.12.h.6; §63.7322(b)(1)]

a) Method 1 to select sampling port locations and the number of traverse points. Sampling sites must be located at the outlet of the control device and prior to any releases to the atmosphere.
b) Method 2, 2F, or 2G to determine the volumetric flow rate of the stack gas.
c) Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.
d) Method 4 to determine the moisture content of the stack gas.
e) Method 5 or 5D, as applicable, to determine the concentration of front half particulate matter in the stack gas.

2) During each particulate matter test run, sample only during periods of actual pushing when the capture system fan and control device are engaged. Collect a minimum sample volume of 30 dry standard cubic feet of gas during each test run. Three valid test runs are needed to comprise a performance test. Each run must start at the beginning of a push and finish at the end of a push (i.e., sample for an integral number of pushes) [§2103.12.h.6; §63.7322(b)(2)].

e. For each capture system applied to pushing emissions, the permittee shall establish a site-specific operating limit for the fan motor amperes or volumetric flow rate according to the procedures in Condition V.B.2.e.1) or V.B.2.e.2) below: [§2103.12.h.6; §63.7323(c)]

1) If you elect the operating limit in V.B.1.d.1) above for fan motor amperes, measure and record the fan motor amperes during each push sampled for each particulate matter test run. Your operating limit is the lowest fan motor amperes recorded during any of the three runs that meet the emission limit.
2) If you elect the operating limit in V.B.1.d.2) above for volumetric flow rate, measure and record the total volumetric flow rate at the inlet of the control device during each push sampled for each particulate matter test run. Your operating limit is the lowest volumetric flow rate recorded during any of the three runs that meet the emission limit.

f. The permittee may change the operating limit for a capture system if you meet the requirements in Conditions V.B.2.f.1) through V.B.2.f.3) below: [§2103.12.h.6; §63.7323(e)]

1) Submit a written notification to the Department of your request to conduct a new performance test to revise the operating limit.
2) Conduct a performance test to demonstrate that emissions of particulate matter from the control device do not exceed the applicable limit in §63.7290(a).
3) Establish revised operating limits according to the applicable procedures in Condition V.B.2.e above.

g. The Department reserves the right to require additional emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Site Level Condition IV.13 entitled “Emissions Testing” and §2108.02. (§2103.12.h.1)

3. Monitoring Requirements:

a. The permittee shall continuously monitor and record the differential pressure drop across the baghouse and shall monitor and record the differential pressure drop across each compartment of the baghouse on a daily basis. [§2103.12.i.]

b. The permittee shall inspect each compartment of Battery No. 1 PEC System baghouse weekly, to insure compliance with condition V.B.1.b above. [§2103.12.i.]

c. The permittee shall meet each of the following requirements in conditions V.B.3.c.1) through V.B.3.c.6) for the coke oven battery. [§63.7291(a)]

1) Observe and record the opacity of fugitive pushing emissions from each oven at least once every 90 days. If an oven cannot be observed during a 90-day period due to circumstances that were not reasonably avoidable, you must observe the opacity of the first push of that oven following the close of the 90-day period that is capable of being observed in accordance with the procedures in §63.7334(a), and you must document why the oven was not observed within a 90-day period. All opacity observations of fugitive pushing emissions for batteries with vertical flues must be made using the procedures in §63.7334(a).

2) Observe and record the opacity of fugitive pushing emissions for at least four consecutive pushes per battery each day. Exclude any push during which the observer's view is obstructed or obscured by interferences and observe the next available push to complete the set of four pushes. If necessary due to circumstances that were not reasonably avoidable, you may observe fewer than four consecutive pushes in a day; however, you must observe and record as many consecutive pushes as possible and document why four consecutive pushes could not be observed. You may observe and record one or more non-consecutive pushes in addition to any consecutive pushes observed in a day.

3) Do not alter the pushing schedule to change the sequence of consecutive pushes to be observed on any day. Keep records indicating the legitimate operational reason for any change in your pushing schedule which results in a change in the sequence of consecutive pushes observed on any day.

4) If the average opacity for any individual push exceeds 30 percent opacity, you must take corrective action and/or increase coking time for that oven. You must complete corrective action or increase coking time within either 10 calendar days or the number of days determined using Equation 1 of this section, whichever is greater:

$X = 0.55 * Y$ (Eq. 1)

Where:
X = Number of calendar days allowed to complete corrective action or increase coking time; and
Y = Current coking time for the oven, hours.

For the purpose of determining the number of calendar days allowed under Equation 1 of this section, day one is the first day following the day you observed an opacity in excess of 30 percent. Any fraction produced by Equation 1 of this section must be counted as a whole day. Days during which the oven is removed from service are not included in the number of days allowed to complete corrective action.

5) The permittee shall demonstrate that:

a) The corrective action and/or increased coking time was successful. After a period of time no longer than the number of days allowed in condition V.B.3.c.4) above, observe and

record the opacity of the first two pushes for the oven capable of being observed using the procedures in §63.7334(a). The corrective action and/or increased coking time was successful if the average opacity for each of the two pushes is 30 percent or less. If the corrective action and/or increased coking time was successful, you may return the oven to the 90-day reading rotation described in condition V.B.3.c.1) above. If the average opacity of either push exceeds 30 percent, the corrective action and/or increased coking time was unsuccessful, and you must complete additional corrective action and/or increase coking time for that oven within the number of days allowed in condition V.B.3.c.4) above.

b) After implementing any additional corrective action and/or increased coking time required under condition V.B.3.c.5)a) above or V.B.3.c.6)b) below, you must demonstrate that corrective action and/or increased coking time was successful. After a period of time no longer than the number of days allowed in condition V.B.3.c.4) above, you must observe and record the opacity of the first two pushes for the oven capable of being observed using the procedures in V.B.3.q. The corrective action and/or increased coking time was successful if the average opacity for each of the two pushes is 30 percent or less. If the corrective action and/or increased coking time was successful, you may return the oven to the 90-day reading rotation described in condition V.B.3.c.1) above. If the average opacity of either push exceeds 30 percent, the corrective action and/or increased coking time was unsuccessful, and you must follow the procedures in condition V.B.3.c.5)c) below.

c) If the corrective action and/or increased coking time was unsuccessful as described in condition V.B.3.c.5)b) above, the permittee must repeat the procedures in condition V.B.3.c.5)b) above until the corrective action and/or increased coking time is successful. You must report to the permitting authority as a deviation each unsuccessful attempt at corrective action and/or increased coking time under condition V.B.3.c.5)b) above.

6) If at any time the permittee places an oven on increased coking time as a result of fugitive pushing emissions that exceed 30 percent, you must keep the oven on the increased coking time until the oven qualifies for decreased coking time using one of the following procedures:

a) To qualify for a decreased coking time for an oven placed on increased coking time in accordance with condition V.B.3.c.4) or V.B.3.c.5) above, you must operate the oven on the decreased coking time. After no more than two coking cycles on the decreased coking time, you must observe and record the opacity of the first two pushes that are capable of being observed using the procedures in §63.7334(a). If the average opacity for each of the two pushes is 30 percent or less, you may keep the oven on the decreased coking time and return the oven to the 90-day reading rotation described in condition V.B.3.c.1) above. If the average opacity of either push exceeds 30 percent, the attempt to qualify for a decreased coking time was unsuccessful. You must then return the oven to the previously established increased coking time, or implement other corrective action(s) and/or increased coking time. If you implement other corrective action and/or a coking time that is shorter than the previously established increased coking time, you must follow the procedures in condition V.B.3.c.5)b) above to confirm that the corrective action(s) and/or increased coking time was successful.

b) If the attempt to qualify for decreased coking time was unsuccessful as described in condition V.B.3.c.6)a) above, you may again attempt to qualify for decreased coking time

for the oven. To do this, you must operate the oven on the decreased coking time. After no more than two coking cycles on the decreased coking time, you must observe and record the opacity of the first two pushes that are capable of being observed using the procedures in §63.7334(a). If the average opacity for each of the two pushes is 30 percent or less, you may keep the oven on the decreased coking time and return the oven to the 90-day reading rotation described in condition V.B.3.c.1) above. If the average opacity of either push exceeds 30 percent, the attempt to qualify for a decreased coking time was unsuccessful. You must then return the oven to the previously established increased coking time, or implement other corrective action(s) and/or increased coking time. If you implement other corrective action and/or a coking time that is shorter than the previously established increased coking time, you must follow the procedures in condition V.B.3.c.5)b) above to confirm that the corrective action(s) and/or increased coking time was successful.

c) The permittee must report to the permitting authority as a deviation the second and any subsequent consecutive unsuccessful attempts on the same oven to qualify for decreased coking time as described in paragraph V.B.3.c.6)b) above

d. As provided in §63.6(g), the permittee may request to use an alternative to the work practice standards in Condition V.B.3.c above. [§2103.12.h.6; §63.7291(b)]

e. The permittee shall prepare and operate at all times according to a written operation and maintenance plan for each capture system and control device applied to pushing emissions from coke battery. Each plan must address at a minimum the following elements. [§2103.12.h.6; §63.7300(c)]

1) Monthly inspections of the equipment that are important to the performance of the total capture system (e.g., pressure sensors, dampers, and damper switches). This inspection must include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). In the event a defect or deficiency is found in the capture system (during a monthly inspection or between inspections), permittee must complete repairs within 30 days after the date that the defect or deficiency is discovered. If you determine that the repairs cannot be completed within 30 days, permittee must submit a written request for an extension of time to complete the repairs that must be received by the permitting authority not more than 20 days after the date that the defect or deficiency is discovered. The request must contain a description of the defect or deficiency, the steps needed and taken to correct the problem, the interim steps being taken to mitigate the emissions impact of the defect or deficiency, and a proposed schedule for completing the repairs. The request shall be deemed approved unless and until such time as the permitting authority notifies you that it objects to the request. The permitting authority may consider all relevant factors in deciding whether to approve or deny the request (including feasibility and safety). Each approved schedule must provide for completion of repairs as expeditiously as practicable, and the permitting authority may request modifications to the proposed schedule as part of the approval process.

2) Preventative maintenance for each control device, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

3) Corrective action for all baghouses applied to pushing emissions. In the event a bag leak

detection system alarm is triggered, the permittee must initiate corrective action to determine the cause of the alarm within 1 hour of the alarm, initiate corrective action to correct the cause of the problem within 24 hours of the alarm, and complete the corrective action as soon as practicable. Actions may include, but are not limited to:

a) Inspecting the baghouse for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in emissions.
b) Sealing off defective bags or filter media.
c) Replacing defective bags or filter media or otherwise repairing the control device.
d) Sealing off a defective baghouse compartment.
e) Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system.
f) Shutting down the process producing the particulate emissions.

f. For the PEC system baghouse applied to pushing emissions from a coke oven battery, the permittee shall at all times monitor the relative change in particulate matter loadings using a bag leak detection system according to the requirements in V.B.3.g below and conduct inspections at their specified frequency according to the following requirements: [§2103.12.h.6; §63.7330(a)]

1) Monitor the pressure drop across each baghouse cell each day to ensure pressure drop is within the normal operating range identified in the manual;
2) Confirm that dust is being removed from hoppers through weekly visual inspections or equivalent means of ensuring the proper functioning of removal mechanisms;
3) Check the compressed air supply for pulse-jet baghouses each day;
4) Monitor cleaning cycles to ensure proper operation using an appropriate methodology;
5) Check bag cleaning mechanisms for proper functioning through monthly visual inspection or equivalent means;
6) Confirm the physical integrity of the baghouse through quarterly visual inspections of the baghouse interior for air leaks; and
7) Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means.

g. The permittee shall install, operate, and maintain a bag leak detection system on the PEC baghouse according to the following requirements: [§2103.12.h.6; §63.7331(a)]

1) The system must be certified by the manufacturer to be capable of detecting emissions of particulate matter at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less;
2) The system must provide output of relative changes in particulate matter loadings;
3) The system must be equipped with an alarm that will sound when an increase in relative particulate loadings is detected over a preset level. The alarm must be located such that it can be heard by the appropriate plant personnel;
4) Each system that works based on the triboelectric effect must be installed, operated, and maintained in a manner consistent with the guidance document, ``Fabric Filter Bag Leak Detection Guidance'' (EPA-454/R-98-015, September 1997). You may install, operate, and maintain other types of bag leak detection systems in a manner consistent with the manufacturer's written specifications and recommendations;
5) To make the initial adjustment of the system, establish the baseline output by adjusting the sensitivity (range) and the averaging period of the device. Then, establish the alarm set points and the alarm delay time;

6) Following the initial adjustment, do not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time, except as detailed in your operation and maintenance plan. Do not increase the sensitivity by more than 100 percent or decrease the sensitivity by more than 50 percent over a 365-day period unless a responsible official certifies, in writing, that the baghouse has been inspected and found to be in good operating condition; and
7) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

h. For each CPMS required in V.B.3.m below, you must develop and make available for inspection upon request by the permitting authority a site-specific monitoring plan that addresses the requirements in Conditions V.B.3.h.1) through V.B.3.h.6) below: [§2103.12.h.6; §63.7331(b)]

1) Installation of the CPMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device);
2) Performance and equipment specifications for the sample interface, the parametric signal analyzer, and the data collection and reduction system;
3) Performance evaluation procedures and acceptance criteria (e.g., calibrations);
4) Ongoing operation and maintenance procedures in accordance with the general requirements of §63.8(c)(1), (3), (4)(ii), (7), and (8);
5) Ongoing data quality assurance procedures in accordance with the general requirements of §63.8(d); and
6) Ongoing recordkeeping and reporting procedures in accordance the general requirements of §63.10(c), (e)(1), and (e)(2)(i).

i. The permittee shall conduct a performance evaluation of each CPMS in accordance with your site-specific monitoring plan. [§2103.12.h.6; §63.7331(c)]

j. The permittee shall operate and maintain each CPMS in continuous operation according to the site-specific monitoring plan. [§2103.12.h.6; §63.7331(d)]

k. If the permittee elects the operating limit in V.B.1.d.1) above for a capture system applied to pushing emissions, you must install, operate, and maintain a device to measure the fan motor amperes. [§2103.12.h.6; §63.7331(h)]

l. If the permittee elects the operating limit in V.B.1.d.2) above for a capture system applied to pushing emissions, you must install, operate, and maintain a device to measure the total volumetric flow rate at the inlet of the control device. [§2103.12.h.6; §63.7331(g)]

m. For each capture system applied to pushing emissions, the permittee shall at all times monitor the fan motor amperes according to the requirements in Condition V.B.3.k or the volumetric flow rate according to the requirements in Condition V.B.3.l above. [§2103.12.h.6; §63.7330(d)]

n. Except for monitor malfunctions, associated repairs, and required quality assurance or control activities (including as applicable, calibration checks and required zero and span adjustments), the permittee shall monitor continuously (or collect data at all required intervals) at all times the affected source is operating. [§2103.12.h.6; §63.7332(a)]

o. The permittee shall not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report

emission or operating levels, or in fulfilling a minimum data availability requirement, if applicable. The permittee shall use all the data collected during all other periods in assessing compliance. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitor to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. [§2103.12.h.6; §63.7332(b)]

p. For each capture system applied to pushing emissions and subject to the operating limit in Condition V.B.1.d above, the permittee shall demonstrate continuous compliance by meeting the requirements in Condition V.B.3.p.1) or V.B.3.p.2) below: [§2103.12.h.6; §63.7333(d)]

1) If the permittee elects the operating limit for fan motor amperes in V.B.1.d.1) above:
   a) Maintaining the daily average fan motor amperes at or above the minimum level established during the initial or subsequent performance test; and
   b) Checking the fan motor amperes at least every 8 hours to verify the daily average is at or above the minimum level established during the initial or subsequent performance test and recording the results of each check.

2) If the permittee elects the operating limit for volumetric flow rate in V.B.1.d.2) above:

   a) Maintaining the daily average volumetric flow rate at the inlet of the control device at or above the minimum level established during the initial or subsequent performance test; and
   b) Checking the volumetric flow rate at least every 8 hours to verify the daily average is at or above the minimum level established during the initial or subsequent performance test and recording the results of each check.

q. The permittee shall demonstrate continuous compliance with the work practice standards for fugitive pushing emissions according to the following requirements: [§2103.12.h.6; §63.7334(a)]

1) Observe and record the opacity of fugitive emissions for four consecutive pushes per operating day, except you may make fewer or non-consecutive observations as permitted by Condition V.B.3.c.2) above. Maintain records of the pushing schedule for each oven and records indicating the legitimate operational reason for any change in the pushing schedule according to Condition V.B.3.c.3)above.
2) Observe and record the opacity of fugitive emissions from each oven in a battery at least once every 90 days. If an oven cannot be observed during a 90-day period, observe and record the opacity of the first push of that oven following the close of the 90-day period that can be read in accordance with the procedures in conditions V.B.3.q.1) through V.B.3.q.8).
3) Make all observations and calculations for opacity observations of fugitive pushing emissions in accordance with Method 9 in Appendix A to 40 CFR Part 60 using a Method 9 certified observer unless you have an approved alternative procedure under condition V.B.3.q.7) below.
4) Record pushing opacity observations at 15-second intervals as required in section 2.4 of Method 9 (Appendix A to 40 CFR Part 60). The requirement in section 2.4 of Method 9 for a minimum of 24 observations does not apply, and the data reduction requirements in section 2.5 of Method 9 do not apply. The requirement in §63.6(h)(5)(ii) for obtaining at least 3 hours of observations (thirty 6-minute averages) to demonstrate initial compliance does not apply.
5) If fewer than six but at least four 15-second observations can be made, use the average of the total number of observations to calculate average opacity for the push. Missing one or more observations during the push (e.g., as the quench car passes behind a building) does not

invalidate the observations before or after the interference for that push. However, a minimum of four 15-second readings must be made for a valid observation.

6) Begin observations for a push at the first detectable movement of the coke mass. End observations of a push when the quench car enters the quench tower.
   a) Observe fugitive pushing emissions from a position at least 10 meters from the quench car that provides an unobstructed view and avoids interferences from the topside of the battery. This may require the observer to be positioned at an angle to the quench car rather than perpendicular to it. Typical interferences to avoid include emissions from open standpipes and charging.
   b) Observe the opacity of emissions above the battery top with the sky as the background where possible. Record the oven number of any push not observed because of obstructions or interferences.
   c) You may reposition after the push to observe emissions during travel if necessary.

7) If it is infeasible to implement the procedures in Conditions V.B.3.q.1) through V.B.3.q.6) for an oven due to physical obstructions, nighttime pushes, or other reasons, you may apply to the Department for permission to use an alternative procedure. The application must provide a detailed explanation of why it is infeasible to use the procedures in Conditions V.B.3.q.1) through V.B.3.q.6) above, identify the oven and battery numbers, and describe the alternative procedure. An alternative procedure must identify whether the coke in that oven is not completely coked, either before, during, or after an oven is pushed.

8) For each oven observed that exceeds an opacity of 30 percent, you must take corrective action and/or increase the coking time in accordance with Condition V.B.3.c above. Maintain records documenting conformance with Condition V.B.3.c above.

r. To demonstrate continuous compliance with the operation and maintenance requirements for a baghouse applied to pushing emissions from a coke oven battery in V.B.3.g above, the permittee shall inspect and maintain each baghouse according to the requirements in Conditions V.B.3.g.1) through V.B.3.g.7) above and record all information needed to document conformance with these requirements. If you increase or decrease the sensitivity of the bag leak detection system beyond the limits specified in Condition V.B.3.g.6), you must include a copy of the required written certification by a responsible official in the next semiannual compliance report. [§2103.12.h.6; §63.7335(c)]

4. Record Keeping Requirements:

a. The results of the inspections required by condition V.B.3.b above shall be recorded weekly along with the differential pressure drop across the baghouse. Episodes of non-compliance with conditions V.B.1.a through V.B.1.c and V.B.3.b above and corrective actions taken shall be recorded upon occurrence. [§2103.12.j]

b. The permittee shall keep records of each baghouse maintenance inspection and repair, replacement or other corrective action. [§2103.12.j]

c. All records shall be retained by the facility for at least five (5) years. These records shall be made available to the Department upon request for inspection and/or copying. [§2102.04.e.]

d. The permittee shall keep the following records: [§2103.12.h.6; §63.7342(a)]

1) A copy of each notification and report that was submitted to comply with this subpart, including all documentation supporting any initial notification or notification of compliance status that you submitted, according to the requirements in §63.10(b)(2)(xiv).
2) The records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.
3) Records of performance tests, performance evaluations, and opacity observations as required in §63.10(b)(2)(viii).

e. For each COMS or CEMS, the permittee shall keep the following records. [§2103.12.h.6; §63.7342(b)]

1) The permittee shall keep the following records [§63.10(b)(2)(vi) through (xi)].

a) Each period during which a CMS is malfunctioning or inoperative (including out-of-control periods; [§63.10(b)(2)(vi)]
b) All required measurements needed to demonstrate compliance with a relevant standard (including, but not limited to, 15-minute averages of CMS data, raw performance testing measurements, and raw performance evaluation measurements, that support data that the source is required to report); [§63.10(b)(2)(vii]
c) All results of performance tests, CMS performance evaluations, and opacity and visible emission observations; [§63.10(b)(2)(viii]
d) All measurements as may be necessary to determine the conditions of performance tests and performance evaluations; [§63.10(b)(2)(ix)]
e) All CMS calibration checks; [§63.10(b)(2)(x)]
f) All adjustments and maintenance performed on CMS. [§63.10(b)(2)(xi)]

2) The permittee shall record the monitoring data for COMS during a performance evaluation as required in §63.6(h)(7)(i) and (ii).

3) Previous (that is, superceded) versions of the performance evaluation plan as required in §63.8(d)(3).
4) Records of the date and time that each deviation started and stopped and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.

f. The permittee shall make available, upon request, such records that are deemed necessary to determine the conditions under which visual observations were made and shall provide evidence indicating proof of current visible observer emission certification. [§63.6(h)(6); §63.7342(c); §2103.12.j; §2103.12.h.6]

g. The permittee shall keep the records required in Conditions V.B.3.p through V.B.3.r above and V.B.4.k through V.B.4.m below to show continuous compliance with each applicable emission limitation, work practice standard, and operation and maintenance requirement. [§2103.12.h.6; §63.7342(d)]

h. The permittee shall keep records in a form suitable and readily available for expeditious review, according to §63.10(b)(1). [§2103.12.h.6; §63.7343(a)]

i. As specified in §63.10(b)(1), the permittee shall keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [§2103.12.h.6; §63.7343(b)]

j. The permittee shall keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). You can keep the records offsite for the remaining 3 years. [§2103.12.h.6; §63.7343(c)]

k. For each coke oven battery with a capture system or control device applied to pushing emissions, the permittee shall demonstrate continuous compliance with the operation and maintenance requirements in Condition V.B.3.e above by meeting the following requirements: [§2103.12.h.6; §63.7335(b)]

1) Making monthly inspections of capture systems according to Condition V.B.3.e.1) above and recording all information needed to document conformance with these requirements;
2) Performing preventative maintenance for each control device according to Condition V.B.3.e.2) above and recording all information needed to document conformance with these requirements; and
3) Initiating and completing corrective action for a bag leak detection system alarm according to Condition V.B.3.e.3) above and recording all information needed to document conformance with these requirements. This includes records of the times the bag leak detection system alarm sounds, and for each valid alarm, the time you initiated corrective action, the corrective action(s) taken, and the date on which corrective action is completed.

l. The permittee shall inspect and maintain the pushing emission control baghouse as required in V.B.3.g.1) through V.B.3.g.7) above and record all information needed to document conformance with these requirements. If you increase or decrease the sensitivity of the bag leak detection system beyond the limits specified in V.B.3.g.6) above, you must include a copy of the required written certification by a responsible official in the next semiannual compliance report. [63.7335(c)]

m. The permittee shall maintain a current copy of the operation and maintenance plans required in V.B.3.e onsite and available for inspection upon request. The plans shall be kept for the life of the affected source or until the affected source is no longer subject to the requirements of 40 CFR Part 63, Subpart CCCCC. [63.7335(d)]

5. Reporting Requirements:

a. The permittee shall report all instances of non-compliance with conditions V.B.1.a through V.B.1.c, V.B.3.b and V.B.4.a through V.B.4.c above along with all corrective action taken to restore the subject equipment to compliance, to the Department every six months. [§2103.12.k]

b. Reporting instances of non-compliance in accordance with condition V.B.5.a above does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition 5, if appropriate. [§2103.12.k.1; §2108.01.c]

c. The permittee shall report each instance in which each emission limitation in Conditions V.B.1.c, V.B.1.d and V.B.1.e was not met. This includes periods of startup, shutdown, and malfunction. The permittee shall also report each instance in which the permittee did not meet each work practice standard or operation and maintenance requirement in Conditions V.B.6.a, V.B.6.b and V.B.6.c. These instances are deviations from the emission limitations (including operating limits), work practice standards, and operation and maintenance requirements of 40 CFR Part 63, Subpart CCCCC permit section. These deviations must be reported according to the requirements in V.B.5.g through V.B.5.j below. [§2103.12.h.6; §63.7336(a)]

d. During periods of startup, shutdown, and malfunction, the permittee must operate in accordance with your startup, shutdown, and malfunction plan. [§2103.12.h.6; §63.7336(b)]

1) Consistent with §63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Department's satisfaction that you were operating in accordance with the startup, shutdown, and malfunction plan.
2) The Department will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in §63.6(e).

e. The permittee shall submit all of the required notifications in §63.6(h)(4) and (5), 63.7(b) and (c), 63.8(e) and (f)(4), and 63.9(b) through (h) that apply by the specified dates. [§2103.12.h.6; §63.7340(a)]

f. If you are required to conduct a performance test, the permittee shall submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin as required in §63.7(b)(1). [§2103.12.h.6; §63.7340(d)]

g. Unless the Department has approved a different schedule, the permittee must submit semiannual compliance reports for the PEC stacks to the Department according to the requirements in Conditions V.B.5.g.1) and V.B.5.g.2) below: [§2103.12.h.6; §63.7341(a)]

1) Each compliance report shall cover the semiannual reporting period as specified in General Condition III.15.d. All semiannual compliance reports must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.
2) For each affected source that is subject to permitting regulations pursuant to 40 CFR Part 70 or 40 CFR Part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the Department has established instead of according to the dates in Conditions V.B.5.g.1) above.

h. Each semiannual compliance report must provide information on compliance with the emission limitations, work practice standards, and operation and maintenance requirements for all affected sources except battery stacks. The reports must include the information in V.B.5.h.1) through V.B.5.h.3) below, and as applicable, Conditions V.B.5.h.4) through V.B.5.h.8) below. [§2103.12.h.6; §63.7341(c)]

1) Company name and address.
2) Statement by a responsible official, with the official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.
3) Date of report and beginning and ending dates of the reporting period.
4) If there was a startup, shutdown, or malfunction during the reporting period and the permittee took actions consistent with the startup, shutdown, and malfunction plan, the compliance report must include the information in §63.10(d)(5)(i).
5) If there were no deviations from the continuous compliance requirements in Conditions V.B.3.q through V.B.3.r and V.B.4.k through V.B.4.m above (for all affected sources other than battery stacks), a statement that there were no deviations from the emission limitations, work practice standards, or operation and maintenance requirements during the reporting

period.

6) If there were no periods during which a continuous monitoring system (including COMS, continuous emission monitoring system (CEMS), or CPMS) was out-of-control as specified in §63.8(c)(7), a statement that there were no periods during which a continuous monitoring system was out-of-control during the reporting period.
7) For each deviation from an emission limitation in 40 CFR 63, Subpart CCCCC and for each deviation from the requirements for work practice standards in this 40 CFR Part 63, Subpart CCCCC that occurs at an affected source where the permittee is not using a continuous monitoring system (including a COMS, CEMS, or CPMS) to comply with the emission limitations in this subpart, the compliance report must contain the information in Conditions V.B.5.h.4), V.B.5.h.7)a) and V.B.5.h.7)b) below. This includes periods of startup, shutdown, and malfunction.

    a) The total operating time of each affected source during the reporting period.
    b) Information on the number, duration, and cause of deviations (including unknown cause, if applicable) as applicable and the corrective action taken.

8) For each deviation from an emission limitation occurring at an affected source where the permittee is using a continuous monitoring system (including COMS, CEMS, or CPMS) to comply with the emission limitation 40 CFR 63, Subpart CCCCC, the permittee must include the information in Conditions V.B.5.h.4), V.B.5.h.8)a) through V.B.5.h.8)l) below. This includes periods of startup, shutdown, and malfunction.

    a) The date and time that each malfunction started and stopped.
    b) The date and time that each continuous monitoring system (including COMS, CEMS, or CPMS) was inoperative, except for zero (low-level) and high-level checks.
    c) The date, time, and duration that each continuous monitoring system (including COMS, CEMS, or CPMS) was out-of-control, including the information in §63.8(c)(8).
    d) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.
    e) A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.
    f) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.
    g) A summary of the total duration of continuous monitoring system downtime during the reporting period and the total duration of continuous monitoring system downtime as a percent of the total source operating time during the reporting period.
    h) An identification of each HAP that was monitored at the affected source.
    i) A brief description of the process units.
    j) A brief description of the continuous monitoring system.
    k) The date of the latest continuous monitoring system certification or audit.
    l) A description of any changes in continuous monitoring systems, processes, or controls since the last reporting period.

i. If the permittee had a startup, shutdown, or malfunction during the semiannual reporting period that was not consistent with your startup, shutdown, and malfunction plan, you must submit an immediate startup, shutdown, and malfunction report according to the requirements in §63.10(d)(5)(ii). [§2103.12.h.6; §63.7341(d)]

j. If the permittee submits a compliance report for an affected source along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A), and the compliance report includes all the required information concerning deviations from any emission limitation or work practice standard in 40 CFR Part 63, Subpart CCCCC, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report does not otherwise affect any obligation you may have to report deviations from permit requirements to the Department. [§2103.12.h.6; §63.7341(e)]

6. Work Practice Standards:

a. The permittee shall develop and implement a written startup, shutdown, and malfunction plan according to the provisions in 40 CFR 63, Subpart A, §63.6(e)(3). [§2103.12.h.6; §63.7310(c)]

b. As required by §63.6(e)(1)(i), the permittee shall operate and maintain each coke battery including air pollution control and monitoring equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by 40 CFR Part 63, Subpart CCCCC. [§2103.12.k; §2103.12.h.6; §63.7300(a)]

c. The permittee shall be in compliance with the emission limitations, work practice standards, and operation and maintenance requirements of 40 CFR 63, Subpart CCCCC at all times, except during periods of startup, shutdown, and malfunction as defined in §63.2. [§2103.12.k; §2103.12.h.6; §63.7310(a)]

C. Process P001C: Quench Tower No. 1

Process Description: Water quenching of incandescent coke from the No. 1 Coke Oven Battery
Facility IDs: P001C
Raw Materials: Incandescent coke, water
Control Device: Baffles installed in the quench tower to capture entrained water droplets

1. Restrictions:

a. The permittee shall not quench, or allow the quenching of, coke unless the emissions from such quenching are vented through a baffled quench tower and the water used for such quenching is equivalent to, or better than, the water quality standards established for the nearest stream or river by regulations promulgated by the DEP under the Pennsylvania Clean Streams Law, Act of June 22, 1937, PL. 1987, as amended, 35 P.S. 691.1 et seq., except that water from the nearest stream or river may be used for the quenching of coke. [§2105.21.g]

b. The permittee shall meet the following requirements for the quench tower: [§2103.12.h.6; §63.7295(a)]

1) For the quenching of hot coke, the permittee shall meet one of the following requirements: [§2103.12.h.6; §63.7295(a)(1)]

a) The concentration of total dissolved solids (TDS) in the water used for quenching must not exceed 1,100 milligrams per liter (mg/L); or
b) The sum of the concentrations of benzene, benzo (a) pyrene, and naphthalene in the water used for quenching must not exceed the applicable site-specific limit approved by the Department.

2) The permittee shall use acceptable makeup water, as defined in §63.7352, for quenching [§2103.12.h.6; §63.7295(a)(2)].

c. For the by-product coke oven battery subject to the requirements for quench water in V.C.1.b.1) above, the permittee shall submit a notification of compliance status containing the results of the quench water performance test (TDS or constituent limit) before the close of business on the 30th calendar days following the completion of the compliance demonstration. For each particulate matter emission limitation that applies to you, the permittee shall submit a notification of compliance status containing the results of the performance test before the close of business on the 60th calendar days following completion of the performance test according to §63.10(d)(2). [§2103.12.h.6; §63.7326(d)]

d. If the permittee elects the TDS limit for quench water in V.C.1.b.1)a) above, beginning on the first day compliance is required under §63.7283, the permittee shall demonstrate continuous compliance with the TDS limit for quenching in condition V.C.1.b.1)a)§63.7295(a)(1)(i) by meeting the requirements in Conditions V.C.1.d.1) and V.C.1.d.2) below: [§2103.12.i; §2103.12.h.6; §63.7333(f)]

1) Maintaining the TDS content of the water used to quench hot coke at 1,100 mg/L or less; and
2) Determining the TDS content of the quench water at least weekly according to the requirements in Condition V.C.2.a above and recording the sample results.

e. If the permittee elects the constituent limit for quench water in V.C.1.b.1)b) above, the permittee shall demonstrate continuous compliance with the constituent limit for quenching in Condition V.C.1.b.1)b) above by meeting the following requirements: [§2103.12.i; 63.7333(g)]

1) Maintaining the sum of the concentrations of benzene, benzo(a)pyrene, and naphthalene in the water used to quench hot coke at levels less than or equal to the site-specific limit approved by the permitting authority; and
2) Determining the sum of the constituent concentrations at least monthly according to the requirements in V.C.2.c and recording the sample results.

2. Testing Requirements:

a. If the permittee elects the TDS limit for quench water in V.C.1.b.1)a) above, the permittee shall conduct each performance test according to the following conditions: [§2103.12.h.6; §63.7325(a)]

1) Take the quench water sample from a location that provides a representative sample of the quench water as applied to the coke (e.g., from the header that feeds water to the quench tower reservoirs). Conduct sampling under normal and representative operating conditions.
2) Determine the TDS concentration of the sample using Method 160.1 in 40 CFR Part 136.3 (see "residue—filterable"'), except that you must dry the total filterable residue at 103 to 105 [deg] C (degrees Centigrade) instead of 180 [deg] C.

b. If at any time the permittee elects to meet the alternative requirements for quench water in V.C.1.b.1)b) above, the permittee shall establish a site-specific constituent limit according to the procedures in Conditions V.C.2.b.1) throughV.C.2.b.4) below: [§2103.12.h.6; §63.7325(b)]

1) Take a minimum of nine quench water samples from a location that provides a representative sample of the quench water as applied to the coke (e.g., from the header that feeds water to the quench tower reservoirs). Conduct sampling under normal and representative operating conditions.
2) For each sample, determine the TDS concentration according to the requirements in Condition V.C.2.a above, and the concentration of benzene, benzo(a)pyrene, and naphthalene using the applicable methods in 40 CFR Part 136 or an approved alternative method.
3) Determine and record the highest sum of the concentrations of benzene, benzo(a)pyrene, and naphthalene in any sample that has a TDS concentration less than or equal to the TDS limit of 1,100 mg/L. This concentration is the site-specific constituent limit.
4) Submit the site-specific limit, sampling results, and all supporting data and calculations to Department for review and approval.

c. If the permittee elects the constituent limit for quench water in V.C.1.b.1)b) above, the permittee shall conduct each performance test according to the conditions in Conditions V.C.2.c.1) and V.C.2.c.2) below: [§2103.12.h.6; §63.7325(c)]

1) Take a quench water sample from a location that provides a representative sample of the quench water as applied to the coke (e.g., from the header that feeds water to the quench tower reservoirs). Conduct sampling under normal and representative operating conditions.
2) Determine the sum of the concentration of benzene, benzo(a)pyrene, and naphthalene in the sample using the applicable methods in 40 CFR Part 136 or an approved alternative method.

d. The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Site Level Condition IV.13 entitled "Emissions Testing" and §2108.02. (§2103.12.h.1)

3. Monitoring Requirements:

a. The permittee shall inspect the quench tower monthly for damaged or missing baffles and blockage and initiate repair or replacement of damaged or missing baffles within 30 days and completed as soon as practicable. [§2103.12.i]

4. Record Keeping Requirements:

a. The permittee shall maintain records of all quench tower inspections and shall record when missing or damaged baffles or blockages are discovered. [§2103.12.j]

b. The permittee shall record and maintain records of all repairs or replacement of baffles. The record keeping shall include inspection date, findings, a description of the repair or replacement, the date repairs and/or replacements were initiated and the date repairs and/or replacements were completed. [§2103.12.j]

c. The permittee shall keep the records required in Conditions V.C.3.a and V.C.3.b above and V.C.4.e below to show continuous compliance with each emission limitation, work practice standard, and operation and maintenance requirement that applies to you. [§2103.12.j; §2103.12.h.6; §63.7342(d)]

d. The permittee shall keep records in a form suitable and readily available for expeditious review, according to §63.10(b)(1). [§2103.12.j; §2103.12.h.6; §63.7343(a)]

e. For each coke oven battery subject to the work practice standard for quenching in V.C.6.a below, you must demonstrate continuous compliance according to the requirements of Conditions V.C.4.e.1) through V.C.4.e.3) below: [§2103.12.j; §2103.12.h.6; §63.7334(e)]

1) Maintaining baffles in each quench tower such that no more than 5 percent of the cross-sectional area of the tower is uncovered or open to the sky as required in Condition V.C.6.a.1) below;
2) Maintaining records that document conformance with the washing, inspection, and repair requirements in Condition V.C.6.a.2) below, including records of the ambient temperature on any day that the baffles were not washed; and
3) Maintaining records of the source of make-up water to document conformance with the requirement for acceptable make-up water in Condition V.C.1.b.2) above.

5. Reporting Requirements:

a. The permittee shall submit semiannual reports to the Department in accordance General Condition III.15.d above of the following information: [§2103.12.k]

1) The date and results of the inspections performed on the quench towers per Condition V.C.4.a above;
2) The descriptions of the repair or replacement, the date repairs and/or replacements were

initiated and the date repairs and/or replacements were completed per Condition V.C.4.b above.

b. For each coke oven battery, the permittee shall demonstrate initial compliance with the work practice standards for quenching in Condition V.C.6.a below by certifying in your notification of compliance status that you have met the requirements of Conditions V.C.5.b.1) and V.C.5.b.2) below: [§2103.12.k; §2103.12.h.6; §63.7327(e)]

1) Installed the required equipment in each quench tower; and
2) You will meet each of the work practice requirements beginning no later than April 14, 2006

c. Unless the Department has approved a different schedule, the permittee must submit semiannual compliance reports for the quench towers to the Department according to the requirements in Conditions V.C.5.c.1) and V.C.5.c.2) below: [§2103.12.k; §2103.12.h.6; §63.7341(a)]

1) Each semiannual compliance report shall cover the semiannual reporting period as specified in General Condition III.15.d above. All semiannual compliance reports must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.
2) For each affected source that is subject to permitting regulations pursuant to 40 CFR Part 70 or 40 CFR Part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in Conditions V.C.5.c.1) above.

d. *Semiannual compliance report contents.* Each compliance report must provide information on compliance with the emission limitations, work practice standards, and operation and maintenance requirements for the quench tower. The reports must include the information in Conditions V.C.5.d.1) through V.C.5.d.3) below, and as applicable, Conditions V.C.5.d.4) through V.C.5.d.6) below. §[63.7341(c)]

1) Company name and address.
2) Statement by a responsible official, with the official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.
3) Date of report and beginning and ending dates of the reporting period.
4) If you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your startup, shutdown, and malfunction plan, the compliance report must include the information in §63.10(d)(5)(i).
5) If there were no deviations from the continuous compliance requirements in Conditions V.C.3.a, V.C.3.b and V.C.4.e above (for the quench tower), a statement that there were no deviations from the emission limitations, work practice standards, or operation and maintenance requirements during the reporting period.
6) For each deviation from an emission limitation in 40 CFR 63, Subpart CCCCC (including quench water limits) and for each deviation from the requirements for work practice standards in 40 CFR 63, Subpart CCCCC that occurs at the quench tower, the compliance report must contain the information in Conditions V.C.5.d.4) and V.C.5.d.6)a) through V.C.5.d.6)b). This includes periods of startup, shutdown, and malfunction.

a) The total operating time of the quench tower during the reporting period.
b) Information on the number, duration, and cause of deviations (including unknown cause, if applicable) as applicable and the corrective action taken.

6. Work Practice Standards:

a. For quench tower No 1, the permittee shall meet each of the following requirements: [§2103.12.h.6; §2105.03; §63.7295(b)]

1) The permittee shall equip the quench tower with baffles such that no more than 5 percent of the cross sectional area of the tower may be uncovered or open to the sky.
2) The permittee shall wash the baffles in each quench tower once each day that the tower is used to quench coke, except as specified in the following conditions:

a) You are not required to wash the baffles in a quench tower if the highest measured ambient temperature remains less than 30 degrees Fahrenheit throughout that day (24-hour period). If the measured ambient temperature rises to 30 degrees Fahrenheit or more during the day, you must resume daily washing according to the schedule in your operation and maintenance plan.
b) You must continuously record the ambient temperature on days that the baffles were not washed.

3) Inspect the quench tower monthly for damaged or missing baffles and blockage.
4) Initiate repair or replacement of damaged or missing baffles within 30 days and complete as soon as practicable.

b. As provided in §63.6(g), the permittee may request to use an alternative to the work practice standards in Condition V.C.6.a above. [§2103.12.h.6; §63.7295(c)]

7. Additional Requirements

None except as provided elsewhere.

D. Process P002: Coke By-Products Plant

Process Description: Recovery of tars; ammonia; light-oil and clean coke oven gas from raw coke oven gas.

Facility ID:	**P002**
Max. Design Rate:	**Approximately 21 million cubic feet per day of coke oven gas**
Capacity:	**Approximately 21 million cubic feet per day of coke oven gas**
Raw Materials:	**Raw Coke Oven Gas**
Control Device:	**Nitrogen gas blanketing system**

As identified above, Process P002 consists of the following type of equipment: Equipment/Exhauster Components; Liquid Loading Operations; By-Product Process Tanks and By-Product Storage Tanks; Primary and Final Coolers, Tar Precipitators, Tar Decanters; Ammonia Stills, Partial Condensers, Wash Oil Heat Exchangers, Light Oil Condensers, Light Oil Separator and Tar, Wash Oil and Light Oil Storage Tanks.

1. Restrictions:

a. The permittee shall not place or store, or allow to be placed or stored, a volatile organic compound having a vapor pressure of 1.5 psia under actual storage conditions in any above-ground stationary storage tank having a capacity equal to or greater than 2,000 gallons but less than or equal to 40,000 gallons, unless there is in operation on such tank pressure relief valves which are set to release at the higher of 0.7 psig of pressure or 0.3 psig of vacuum or at the highest possible pressure and vacuum in accordance with state or local fire codes, National Fire Prevention Association guidelines, or other national consensus standard approved in writing by the Department. [§2105.12.a]

b. At no time shall the permittee operate the following equipment, with the exception of emergency conditions, unless they are properly operated and maintained according to good engineering and air pollution control practices by performing regular maintenance considering the manufacturer's or operator's maintenance procedures: [RACT Plan 233]

1) Wash and Spent Oil Storage Tanks;
2) Heavy Oil Separator;
3) Light Oil process and Coke Oven Gas Piping Systems; and
4) Nitrogen Gas Blanketing System on the By-Products Plant.

c. The permittee shall at all times, with the exception of situations to mitigate emergency conditions, properly operate and maintain the existing nitrogen gas blanketing system treating emissions from the following equipment, while the subject equipment is emitting VOCs: [RACT Plan 233]

1) Tar Decanter Tanks No. 1 & No. 2;
2) Tar Collection Tanks No. 1 & No. 2;
3) Tar Tanks No. 1 & No. 2;
4) Vertical & Horizontal Flushing Liquor Tanks;
5) Excess Ammonia Liquor Storage Tanks No. 1 & No. 2;
6) Wash Oil Hot Decanter, Wash Oil Cold Decanter, Muck Tank and the Hot and Cold Oil Tanks; and

7) Light Oil Separator, Heavy Oil Separator, Interceptor Sump and Light Oil Process Tanks No. 1 & No. 2.

d. The permittee shall enclose and seal all openings on each process vessel, tar storage tank, and tar-intercepting sump. [§61.132(a)(1)]

e. The permittee shall duct gases from each process vessel, tar storage tank and tar-intercepting sump to the gas collection system, gas distribution system, or other enclosed point in the by-product recovery process where benzene in the gas will be recovered or destroyed. This control system shall be designed and operated for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined by the methods specified in Reference Method 21 of Appendix A, 40 CFR Part 60. This system can be designed as a closed, positive pressure, gas blanketing system. [§61.132(a)(2)]

1) Except, the permittee may elect to install, operate, and maintain a pressure relief device, vacuum relief device, an access hatch, and a sampling port on each process vessel, tar storage tank and tar-intercepting sump. Each access hatch and sampling port must be equipped with a gasket and a cover, seal or lid that must be kept in a closed position at all times, unless in actual use.
2) The permittee may elect to leave open to the atmosphere the portion of the liquid surface in each tar decanter necessary to permit operation of a sludge conveyor. If the permittee elects to maintain an opening on part of the liquid surface of the tar decanter, the permittee shall install, operate, and maintain a water leg seal on the tar decanter roof near the sludge discharge chute to ensure enclosure of the major portion of liquid surface not necessary for the operation of the sludge conveyor.

f. The permittee shall comply with the requirements of V.D.1.d and V.D.1.e above, and V.D.3.a and V.D.3.b below for each benzene storage tank, BTX storage tank, light-oil storage tank, and excess ammonia-liquor storage tank. [§61. 132(d)]

g. The permittee shall enclose and seal the liquid surface in the light oil sump to form a closed system to contain the emissions. [§ 61.133(a)]
1) Except, the permittee may elect to install, operate, and maintain a vent on the light-oil sump cover. Each vent pipe must be equipped with a water leg seal, a pressure relief device, or vacuum relief device.
2) Except, the permittee may elect to install, operate, and maintain an access hatch on each light-oil sump cover. Each access hatch must be equipped with a gasket and a cover, seal, or lid that must be kept in a closed position at all times, unless in actual use.
3) The light-oil sump cover may be removed for periodic maintenance but must be replaced (with seal) at completion of the maintenance operation.

h. The venting of steam or other gases from the by-product process to the light-oil sump is not permitted. [§ 61.133(b)]

i. The permittee shall allow no (“zero”) emissions from naphthalene processing, final coolers and final-cooler cooling tower. [§61.134(a)]

j. The permittee shall comply with the requirements of 40 CFR Part 61, Subpart V for each piece of equipment to which 40 CFR 61, Subpart L applies and which is in benzene service. [61.135(a) and 61.242-1(a)]

k. Each piece of equipment in benzene service to which 40 CFR 61, Subpart L applies shall be marked in such a manner that it can be distinguished readily from other pieces of equipment in benzene service. [§61.135(c)]

l. The permittee subject to the provisions of 40 CFR 61, Subpart L, shall demonstrate compliance with the requirements of V.D.1.d through V.D.1.k above and V.D.3.a through V.D.3.i below, except as provided under Conditions V.D.1.bb through V.D.1.hh below. [§61.136(a)]

m. Compliance with 40 CFR Part 61, Subparts L and V shall be determined by a review of records, review of performance test results, inspections, or any combination thereof, using the methods and procedures specified in V.D.2.a below. [§61.136(b)]

n. The permittee may request permission to use an alternative means of emission limitation to meet the requirements in Conditions V.D.1.d through V.D.1.h above, V.D.1.j and V.D.1.k above, V.D.3.a through V.D.3.i below, and V.D.3.j through V.D.3.p below; V.D.1.s through V.D.1.u below; V.D.1.v through V.D.1.z below; V.D.3.s through V.D.3.dd below; and V.D.1.aa and V.D.3.jj through V.D.3.pp below. The permittee shall also obtain Department approval to use an alternative means of emission limitation. [§61.136(d)]

1) Permission to use an alternative means of emission limitation shall be requested as specified in §61.12(d).
2) When the Administrator evaluates requests for permission to use alternative means of emission limitation for sources subject to Conditions V.D.1.d through V.D.1.h above and V.D.3.a through V.D.3.d below (except tar decanters) the Administrator shall compare test data for the means of emission limitation to a benzene control efficiency of 98 percent. For tar decanters, the Administrator shall compare test data for the means of emission limitation to a benzene control efficiency of 95 percent.
3) For any requests for permission to use an alternative to the work practices required under Conditions V.D.1.j and V.D.1.k above, and V.D.3.e through V.D.3.i below, the provisions of Condition V.D.1.ii.2) below shall apply.

o. Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by Reference Method 21 of 40 CFR Part 60, Appendix A, [§61.242-4(a)]

p. Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed-vent system capable of capturing and transporting leakage from the pressure relief device to a control device as described in §61.242-11 is exempt from the requirements of §61.242-4(a) and §61.242-4(b). [§61.242-4(c)]

q. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the requirements of paragraphs (a) and (b) of this section, provided the owner or operator complies with the requirements in paragraph (d)(2) of this section. [§61.242-4(d)(1)]

r. After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in §61.242-10. [§61.242-4(d)(2)]

s. The permittee shall equip each sampling connection system with a closed-purge, closed loop, or closed vent system except as provided in 61.242-1(c). [§61.242-5(a)]

t. Each closed-purge, closed loop or closed vent system as required in Condition V.D.1.s above shall: [§61.242-5(b)]

1) Return the purged process fluid directly to the process line; or

2) Collect and recycle the purged process fluid; or

3) Be designed and operated to capture and transport all the purged process fluid to a control device that complies with the requirements of V.D.1.aa through V.D.1.aa.5) below and V.D.3.kk through V.D.3.pp below, or

4) Collect, store, and transport the purged process fluid to any of the following systems or facilities:
   a) A waste management unit as defined in §63.111 if the waste management unit is subject to and operated in compliance with the provisions of 40 CFR Part 63, Subpart G, applicable to Group 1 wastewater streams; or
   b) A treatment, storage, or disposal facility subject to regulation under 40 CFR Part 262, 264, 265, or 266; or
   c) A facility permitted, licensed, or registered by a State to manage municipal or industrial solid waste, if the process fluids are not hazardous waste as defined in 40 CFR Part 261.

u. In-situ sampling systems and sampling systems without purges are exempt from the requirements of Conditions V.D.1.s and V.D.1.t above. [§61.242-5(c)]

v. The permittee shall equip each open-ended valve or line with a cap, blind flange, plug, or a second valve. The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line. [§61.242-6(a)]

w. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. [§61.242-6(b)]

x. When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with Condition V.D.1.v above at all other times. [§61.242-6(c)]

y. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of Conditions V.D.1.v through V.D.1.x above. [§61.242-6(d)]

z. Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in Conditions V.D.1.v through V.D.1.x above are exempt from the requirements of Conditions V.D.1.v through V.D.1.x above. [§61.242-6(e)]

aa. The permittee shall comply with the provisions of Conditions V.D.1.aa.1) below through

V.D.1.aa.5) below and V.D.3.kk through V.D.3.pp below, except as provided in §61.242-1(c). [§61.242-11(a)]

1) Vapor recovery systems (for example, condensers and absorbers) shall be designed and operated to recover the organic vapors vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. [§61.242-11(b)]

2) Enclosed combustion devices shall be designed and operated to reduce the VHAP emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent, or to provide a minimum residence time of 0.50 seconds at a minimum temperature of 760 °C. [§61.242-11(c)] -

3) Flares used to comply with 40 CFR 61, Subpart V shall comply with the requirements of §60.18. [§61.242-11(d)]

4) The permittee shall monitor control devices that are used to comply with the provisions of 40 CFR Part 61, Subpart V to ensure that they are operated and maintained in conformance with their design. [§61.242-11(e)]

5) Closed vent systems and control devices used to comply with provisions of 40 CFR Part 61, Subpart V shall be operated at all times when emissions may be vented to them. [§61.242-11(m)]

bb. Permittee may elect to comply with the alternate standard for valves in VHAP service 40 CFR Part 61.243-1. If electing this alternate standard, permittee must comply with the following: [61.243-1(a)]

1) The percentage of leaking valves shall not exceed a 2.0 percent. [61.243-1(d)]

2) The permittee must notify the Administrator and the Department that the permittee has elected to have all valves within a process unit to comply with the allowable percentage of valves leaking before implementing this alternative standard, as specified in Condition V.D.5.e below. [61.243-1(b)]

3) A performance test as specified in Condition V.D.3.qq below shall be conducted initially upon designation, annually, and at other times requested by the Administrator and the Department. [61.243-1(b)]

4) If a valve leak is detected, it shall be repaired in accordance with Condition V.D.5.e below. [61.243-1(b)]

5) The permittee may elect for all valves within a process unit to comply with one of the alternative work practices specified in Conditions V.D.1.bb.7)b) and V.D.1.bb.7)c) [§61.243-2(a)(1)]

6) The permittee shall notify the Administrator and the Department before implementing one of the alternative work practices, as specified in Condition V.D.3.v below. [§61.243-2(a)(2)]

7) The permittee shall: [§61.243-2(b)]

a) Comply initially with the requirements for valves, as described in Conditions V.D.3.s through V.D.3.z below.

b) After 2 consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than 2.0, an owner or operator may begin to skip one of the quarterly leak detection periods for the valves in VHAP service.
c) After five consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than 2.0, an owner or operator may begin to skip three of the quarterly leak detection periods for the valves in VHAP service.

d) If the percentage of valves leaking is greater than 2.0, the owner or operator shall comply with the requirements as described in Conditions V.D.3.s through V.D.3.z below but may again elect to use this section.

8) If the permittee decides to no longer comply with alternate standards for valve Conditions V.D.1.bb.1) through V.D.1.bb.7) above, the permittee must notify the Administrator and the Department in writing that the work practice standard described in Conditions V.D.3.s through V.D.3.w below will be followed. [§61.243-1(e)]

cc. The permittee may request a determination of alternate means of emission limitation to the requirements of 40 CFR 61 Section 242-2 through 242-11 (except §61.242-4 and §61.242-10) under Section 112(h)(3) of Clean Air Act. Permission to use an alternative means of emission limitation shall be governed by the requirements of 40 CFR 61.244 or ConditionsV.D.1.cc.1) through V.D.1.cc.4) below: [§61.244(a)]

1) Where the standard is an equipment, design, or operational requirement: [§61.244(b)]

a) The permittee applying for permission shall be responsible for collecting and verifying test data for an alternative means of emission limitation to test data for the equipment, design, and operational requirements.
b) The Administrator and the Department may condition the permission on requirements that may be necessary to assure operation and maintenance to achieve the same emission reduction as the equipment, design, and operational requirements.

2) Where the standard is a work practice: [§61.244(c)]
a) Each owner or operator applying for permission shall be responsible for collecting and verifying test data for an alternative means of emission limitation.
b) For each source for which permission is requested, the emission reduction achieved by the required work practices shall be demonstrated for a minimum period of 12 months.
c) For each source for which permission is requested, the emission reduction achieved by the alternative means of emission limitation shall be demonstrated.
d) Each owner or operator applying for permission shall commit in writing each source to work practices that provide for emission reductions equal to or greater than the emission reductions achieved by the required work practices.
e) The Administrator and the Department will compare the demonstrated emission reduction for the alternative means of emission limitation to the demonstrated emission reduction for the required work practices and will consider the commitment in paragraph V.D.1.ii.2)d) above.
f) The Administrator and the Department may condition the permission on requirements that may be necessary to assure operation and maintenance to achieve the same emission

reduction as the required work practices of this subpart.

3) An owner or operator may offer a unique approach to demonstrate the alternative means of emission limitation. [§61.244(d)]

4) Manufacturers of equipment used to control equipment leaks of a VHAP may apply to the Administrator and the Department for permission for an alternative means of emission limitation that achieves a reduction in emissions of the VHAP achieved by the equipment, design, and operational requirements of this subpart. The Administrator and the Department will grant permission according to the provisions of conditions V.D.1.cc.1) through V.D.1.cc.3) above. [§61.244(e)]

dd. If the total annual benzene quantity from facility waste is less than 10 megagrams per year (Mg/yr) (11 ton/yr), the permittee shall be exempt from the requirements of paragraphs §61.342(b) and (c). The total annual benzene quantity from facility waste is the sum of the annual benzene quantity for each waste stream at the facility that has a flow-weighted annual average water content greater than 10 percent or that is mixed with water, or other wastes, at any time and the mixture has an annual average water content greater than 10 percent. The benzene quantity in a waste stream is to be counted only once without multiple counting if other waste streams are mixed with or generated from the original waste stream. Other specific requirements for calculating the total annual benzene waste quantity are as follows: [61.342(a)]

1) Wastes that are exempted from control under §§61.342(c)(2) and 61.342(c)(3) are included in the calculation of the total annual benzene quantity if they have an annual average water content greater than 10 percent, or if they are mixed with water or other wastes at any time and the mixture has an annual average water content greater than 10 percent.
2) The benzene in a material subject to 40 CFR 61, Subpart FF that is sold is included in the calculation of the total annual benzene quantity if the material has an annual average water content greater than 10 percent.
3) Benzene in wastes generated by remediation activities conducted at the facility, such as the excavation of contaminated soil, pumping and treatment of groundwater, and the recovery of product from soil or groundwater are not included in the calculation of total annual benzene quantity for that facility. If the facility's total annual benzene quantity is 10 Mg/yr (11 ton/yr) or more, wastes generated by remediation activities are subject to the requirements of §61.342(c) through 61.342(h). If the facility is managing remediation waste generated offsite, the benzene in this waste shall be included in the calculation of total annual benzene quantity in facility waste, if the waste streams have an annual average water content greater than 10 percent, or if they are mixed with water or other wastes at any time and the mixture has an annual average water content greater than 10 percent. The total annual benzene quantity is determined based upon the quantity of benzene in the waste before any waste treatment occurs to remove the benzene except as specified in Conditions V.D.2.d.1)a)i) through V.D.2.d.1)a)iii) below.

ee. No person shall place or store, or allow to be placed or stored, a volatile organic compound having a vapor pressure greater than 1.5 psia under actual storage conditions in any stationary tank, reservoir, or other container with a capacity greater than 40,000 gallons, unless such tank, reservoir, or other container is a pressure tank capable of maintaining working pressure sufficient to at all times prevent vapor or gas loss to the atmosphere or is equipped with: [§2105.12.b]

1) An external or internal floating roof, except that this control equipment shall not be permitted

if the volatile organic compounds have a vapor pressure of 11.0 psia or greater under actual storage conditions; or

2) A vapor recovery and disposal system reducing uncontrolled emissions of volatile organic compounds by at least 90% by weight. Compliance testing shall be done in accordance with the provisions of §2107.04 of this Article.

ff. Emissions due to operation of the by–products plant (P002) shall not exceed the limitations in Table V-D-1 below: (IP 91-I-0013-P and §2105.03)

TABLE V-D-1:
By-Products Plant Emission Limitations

POLLUTANT	ANNUAL EMISSION LIMIT (tons/year)*
Volatile Organic Compounds	20.82
Benzene	4.75

*A year is defined as any consecutive 12-month period.

2. Testing Requirements:

a. To determine whether or not a piece of equipment is in benzene service, the methods in V.D.3.qq through V.D.3.vv below shall be used, except that, for exhausters, the percent benzene shall be 1 percent by weight, rather than the 10 percent by weight described in Conditions V.D.3.tt through V.D.3.vv below. [§61.137(b)]

b. The permittee shall determine the total annual benzene quantity from facility waste by the following procedure: [§61.355(a)]

1) For each waste stream subject to 40 CFR 61, Subpart FF having a flow-weighted annual average water content greater than 10 percent water, on a volume basis as total water, or is mixed with water or other wastes at any time and the resulting mixture has an annual average water content greater than 10 percent as specified in Condition V.D.1.dd above, the permittee shall:
   a) Determine the annual waste quantity for each waste stream using the procedures specified in Condition V.D.2.c below.
   b) Determine the flow-weighted annual average benzene concentration for each waste stream using the procedures specified in Condition V.D.2.c below.
   c) Calculate the annual benzene quantity for each waste stream by multiplying the annual waste quantity of the waste stream times the flow-weighted annual average benzene concentration.

2) Total annual benzene quantity from facility waste is calculated by adding together the annual benzene quantity for each waste stream generated during the year and the annual benzene quantity for each process unit turnaround waste annualized according to Condition V.D.2.b.4) below.

3) If the total annual benzene quantity from facility waste is equal to or greater than 10 Mg/yr (11 ton/yr), then the permittee shall comply with the requirements of §61.342 (c), (d), or (e).

4) If the total annual benzene quantity from facility waste is less than 10 Mg/yr (11 ton/yr) but is equal to or greater than 1 Mg/yr (1.1 ton/yr), then the permittee shall:
   a) Comply with the recordkeeping requirements of V.D.4.o and V.D.4.p below and reporting requirements of V.D.5.f below; and
   b) Repeat the determination of total annual benzene quantity from facility waste at least once per year and whenever there is a change in the process generating the waste that could cause the total annual benzene quantity from facility waste to increase to 10 Mg/yr (11 ton/yr) or more.

c. The permittee shall determine the annual waste quantity at the location that the waste stream exits the process unit component or waste management unit controlled by 40 CFR Part 61, Subpart L or at the exit of the ammonia still, provided that the following conditions are met: [§61.355(b)(2)]
1) The transfer of wastes between units complying with the control requirements of 40 CFR Part 61, Subpart L, process units, and the ammonia still is made through hard piping or other enclosed system.
2) The ammonia still meets the definition of a sour water stripper in §61.341.

d. For the purposes of the calculation required by condition V.D.2.b above, the permittee shall determine the flow-weighted annual average benzene concentration in a manner that meets the requirements given in paragraph V.D.2.d.1) below using either of the methods given in paragraphs V.D.2.e or V.D.2.f below. [§61.355(c)]

1) The determination of flow-weighted annual average benzene concentration shall meet all of the following criteria:
   a) The determination shall be made at:
      i) The location that the waste stream exits the process unit component or waste management unit controlled by 40 CFR Part 61, Subpart L or at the exit of the ammonia still, provided that the following conditions are met:

         (1) The transfer of wastes between units complying with the control requirements of 40 CFR Part 61, Subpart L, process units, and the ammonia still is made through hard piping or other enclosed system.
         (2) The ammonia still meets the definition of a sour water stripper in §61.341.

      ii) The determination for wastes that are received from offsite shall be made at the point where the waste enters the hazardous waste treatment, storage, or disposal facility.

      iii) The determination of flow-weighted annual average benzene concentration for process unit turnaround waste shall be made using either of the methods given in paragraphs V.D.2.e or V.D.2.f below. The resulting flow-weighted annual average benzene concentration shall be included in the calculation of annual benzene quantity as provided in paragraph V.D.2.b.1)c) above for the year in which the turnaround occurs and for each subsequent year until the unit undergoes the next process unit turnaround.

   b) Volatilization of the benzene by exposure to air shall not be used in the determination to reduce the benzene concentration.
   c) Mixing or diluting the waste stream with other wastes or other materials shall not be used

in the determination to reduce the benzene concentration.

d) The determination shall be made prior to any treatment of the waste that removes benzene, except as specified in paragraphs V.D.2.b.1)a) above.

e) For wastes with multiple phases, the determination shall provide the weighted-average benzene concentration based on the benzene concentration in each phase of the waste and the relative proportion of the phases.

e. The permittee shall provide sufficient information to document the flow-weighted annual average benzene concentration of each waste stream. Examples of information that could constitute knowledge include material balances, records of chemical purchases, or previous test results provided the results are still relevant to the current waste stream conditions. If test data are used, then the permittee shall provide documentation describing the testing protocol and the means by which sampling variability and analytical variability were accounted for in the determination of the flow-weighted annual average benzene concentration for the waste stream. When the permittee and the Administrator and the Department do not agree on determinations of the flow-weighted annual average benzene concentration based on knowledge of the waste, the procedures in condition V.D.2.f below shall be used to resolve the disagreement. [§61.355(c)(2)]

f. Measurements of the benzene concentration in the waste stream in accordance with the following procedures: [§61.355(c)(3)]

1) Collect a minimum of three representative samples from each waste stream. Where feasible, samples shall be taken from an enclosed pipe prior to the waste being exposed to the atmosphere.

2) For waste in enclosed pipes, the following procedures shall be used:
   a) Samples shall be collected prior to the waste being exposed to the atmosphere in order to minimize the loss of benzene prior to sampling.
   b) A static mixer shall be installed in the process line or in a by-pass line unless the owner or operator demonstrates that installation of a static mixer in the line is not necessary to accurately determine the benzene concentration of the waste stream.
   c) The sampling tap shall be located within two pipe diameters of the static mixer outlet.
   d) Prior to the initiation of sampling, sample lines and cooling coil shall be purged with at least four volumes of waste.
   e) After purging, the sample flow shall be directed to a sample container and the tip of the sampling tube shall be kept below the surface of the waste during sampling to minimize contact with the atmosphere.
   f) Samples shall be collected at a flow rate such that the cooling coil is able to maintain a waste temperature less than 10 °C (50 °F).
   g) After filling, the sample container shall be capped immediately (within 5 seconds) to leave a minimum headspace in the container.
   h) The sample containers shall immediately be cooled and maintained at a temperature below 10 °C (50 °F) for transfer to the laboratory.

3) When sampling from an enclosed pipe is not feasible, a minimum of three representative samples shall be collected in a manner to minimize exposure of the sample to the atmosphere and loss of benzene prior to sampling.

4) Each waste sample shall be analyzed using one of the following test methods for determining the benzene concentration in a waste stream:

a) Method 8020, Aromatic Volatile Organics, in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846 (incorporation by reference as specified in §61.18 of this part);
b) Method 8021, Volatile Organic Compounds in Water by Purge and Trap Capillary Column Gas Chromatography with Photoionization and Electrolytic Conductivity Detectors in Series in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846 (incorporation by reference as specified in § 61.18 of this part);
c) Method 8240, Gas Chromatography/Mass Spectrometry for Volatile Organics in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846 (incorporation by reference as specified in 40 CFR Part 61, §61.18);
d) Method 8260, Gas Chromatography/Mass Spectrometry for Volatile Organics: Capillary Column Technique in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846 (incorporation by reference as specified in 40 CFR Part 61, §61.18);
e) Method 602, Purgeable Aromatics, as described in 40 CFR part 136, appendix A, Test Procedures for Analysis of Organic Pollutants, for wastewaters for which this is an approved EPA methods; or
f) Method 624, Purgeables, as described in 40 CFR part 136, appendix A, Test Procedures for Analysis of Organic Pollutants, for wastewaters for which this is an approved EPA method.

5) The flow-weighted annual average benzene concentration shall be calculated by averaging the results of the sample analyses as follows:

$$\bar{C} = \frac{1}{Q_t} \times \sum_{i=1}^{n} (Q_i)(C_i)$$

Where:

C =Flow-weighted annual average benzene concentration for waste stream, ppmw.

Q_t=Total annual waste quantity for waste stream, kg/yr (lb/yr).

n=Number of waste samples (at least 3).

Q_i=Annual waste quantity for waste stream represented by Ci, kg/yr (lb/yr).

C_i=Measured concentration of benzene in waste sample i, ppmw.

g. The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Site Level Condition IV.13 entitled “Emissions Testing” and §2108.02. (§2103.12.h.1)

3. Monitoring Requirements:

a. Following the installation of any control equipment used to meet the requirements of V.D.1.d and V.D.1.e above, the permittee shall monitor the connections and seals on each control system to determine if it is operating with no detectable emissions, using Reference Method 21 of 40 CFR Part 60, Appendix A, and shall visually inspect each source (including sealing materials) and the ductwork of the control system for evidence of visible defects such as gaps or tears. This monitoring and inspection shall be conducted on a semiannual basis and at any other time after the control system is repressurized with blanketing gas following removal of the cover or opening of the access hatch. [§61.132(b)]

1) If an instrument reading indicates an organic chemical concentration more than 500 ppm above a background concentration, as measured by Method 21, a leak is detected.
2) If visible defects such as gaps in sealing materials are observed during a visual inspection, a leak is detected
3) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected
4) A first attempt at repair of any leak or visible defect shall be made no later than 5 calendar days after each leak is detected.

b. Following the installation of any control system used to meet the requirements of Conditions V.D.1.d and V.D.1.e above, the permittee shall conduct a maintenance inspection of the control system on an annual basis for evidence of system abnormalities, such as blocked or plugged lines, sticking valves, plugged condensate traps, and other maintenance defects that could result in abnormal system operation. The permittee shall make a first attempt at repair within 5 days, with repair within 15 days of detection. [§61.132(c)]

c. The permittee shall comply with the requirements of Conditions V.D.1.e, V.D.3.a and V.D.3.b above for each benzene storage tank, BTX storage tank, light-oil storage tank and excess ammonia liquor storage tank. [§61.132(d)]

d. Following the installation of any control equipment used to meet the requirements of Condition V.D.1.g above, the permittee shall monitor the connections and seals on each control system to determine if it is operating with no detectable emissions, using Method 21 (40 CFR part 60, appendix A) and the procedures specified in V.D.3.ss below, and shall visually inspect each source (including sealing materials) for evidence of visible defects such as gaps or tears. This monitoring and inspection shall be conducted semiannually and at any other time the cover is removed. [§61.133(c)]

1) If an instrument reading indicates an organic chemical concentration more than 500 ppm above a background concentration, as measured by Method 21, a leak is detected.
2) If visible defects such as gaps in sealing materials are observed during a visual inspection, a leak is detected.
3) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected.
4) A first attempt at repair of any leak or visible defect shall be made no later than 5 calendar days after each leak is detected.

e. Each exhauster shall be monitored quarterly to detect leaks by the methods specified in V.D.3.rr below except as provided in §61.136(d) and paragraphs V.D.3.f through V.D.3.h below. [§61.135(d)]

1) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
2) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after it is detected, except as provided in V.D.3.bb and V.D.3.cc below. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

f. Each exhauster equipped with a seal system that includes a barrier fluid system and that prevents leakage of process fluids to the atmosphere is exempt from the requirements of Condition V.D.3.e above provided the following requirements are met: [§61.135(e)]

1) Each exhauster seal system is:
   a) Operated with the barrier fluid at a pressure that is greater than the exhauster stuffing box pressure; or
   b) Equipped with a barrier fluid system that is connected by a closed vent system to a control device that complies with the requirements of Conditions V.D.1.aa through V.D.3.pp below; or
   c) Equipped with a system that purges the barrier fluid into a process stream with zero benzene emissions to the atmosphere.

2) The barrier fluid is not in benzene service.

3) Each barrier fluid system shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.

4) Each sensor as described in Condition V.D.3.f.3) above:
   a) Shall be checked daily or shall be equipped with an audible alarm.
   b) The permittee shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

5) If the sensor indicates failure of the seal system, the barrier system, or both (based on the criterion determined under Condition V.D.3.f.4)b) above, a leak is detected.

6) When a leak is detected:
   a) It shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Conditions V.D.3.ee through V.D.3.ii below.
   b) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

g. An exhauster is exempt from the requirements of Condition V.D.3.e above if it is equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a control device that complies with the requirements of Conditions V.D.1.aa through V.D.3.pp below except as provided in Condition V.D.3.h.1) below. [§61.135(f)]

h. Any exhauster that is designated, as described in V.D.4.h below for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of Condition V.D.3.e above if the exhauster: [§61.135(g)]

1) Is demonstrated to be operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the methods specified in §61.245(c); and
2) Is tested for compliance with Condition V.D.3.h.1) above initially upon designation, annually, and at other times requested by the Administrator and the Department.

i. Any exhauster that is in vacuum service is excluded from the requirements of this 40 CFR 61, Subpart L if it is identified as required in Condition V.D.4.h.5) below. [§61.135(h)]

j. Each pump shall be: [§61.242-2(a)]
1) Monitored monthly to detect leaks by the methods specified in Condition V.D.3.rr below, except as provided in conditions V.D.6.c and V.D.6.d below; and V.D.3.m throughV.D.3.p

below

2) Checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.

k. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. If there are indications of liquids dripping from the pump seal, a leak is detected. [§61.242-2(b)]

l. When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Conditions V.D.3.ee through V.D.3.ii below. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [§61.242-2(c)]

m. Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements in Conditions V.D.3.j and V.D.3.k above, provided the following requirements are met: [[§61.242-2(d)]

1) Each dual mechanical seal system is:
   a) Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or
   b) Equipped with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that complies with the requirements of §61.242-11; or
   c) Equipped with a system that purges the barrier fluid into a process stream with zero VHAP emissions to atmosphere.

2) The barrier fluid is not in VHAP service and, if the pump is covered by standards under 40 CFR part 60, is not in VOC service.

3) Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.

4) Each pump is checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.

   a) If there are indications of liquid dripping from the pump seal at the time of the weekly inspection, the pump shall be monitored as specified in §61.245 to determine the presence of VOC and VHAP in the barrier fluid.
   b) If the monitor reading (taking into account any background readings) indicates the presence of VHAP, a leak is detected. For the purpose of this paragraph, the monitor may be calibrated with VHAP, or may employ a gas chromatography column to limit the response of the monitor to VHAP, at the option of the owner or operator.
   c) If an instrument reading of 10,000 ppm or greater (total VOC) is measured, a leak is detected.

5) Each sensor as described in Condition V.D.3.m.3) above is checked daily or is equipped with an audible alarm.

6) Based on design considerations and operating experience, the permittee determines:

a) Criteria applicable to the presence and frequency of drips and to the sensor that indicates failure of the seal system, the barrier fluid system, or both.
b) If indications of liquids dripping from the pump seal exceed the criteria established in Condition V.D.3.m.6)a) above, or if, based on the criteria established in Condition V.D.3.m.6)a) above, the sensor indicates failure of the seal system, the barrier fluid system, or both, a leak is detected.
c) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after it is detected, except as provided in V.D.3.ee through V.D.3.ii below.
d) A first attempt at repair shall be made no later than five calendar days after each leak is detected.

n. Any pump that is designated, as described in V.D.4.h below, for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements in Conditions V.D.3.j, V.D.3.l and V.D.3.m above if the pump: [§61.242-2(e)]

1) Has no externally actuated shaft penetrating the pump housing,
2) Is demonstrated to be operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in §61.245(c), and
3) Is tested for compliance with Condition V.D.3.n.2) above initially upon designation, annually, and at other times requested by the Administrator and the Department.

o. If any pump is equipped with a closed-vent system capable of capturing and transporting any leakage from the seal or seals to a process or fuel gas system or to a control device that complies with the requirements of Conditions V.D.1.aa through V.D.3.pp below, it is exempt from the requirements of Conditions V.D.3.j through V.D.3.n above. [§61.242-2(f)]

p. Any pump that is designated, as described in Condition V.D.4.i.1) below, as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of Conditions V.D.3.j and V.D.3.m.4) through V.D.3.m.6) above if: [§61.242-2(g)]

1) The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with Condition V.D.3.j above; and
2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in Condition V.D.3.l above if a leak is detected.

q. After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in Conditions V.D.3.ee through V.D.3.ii below. [61.242-4(b)(1)]

r. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in Condition V.D.3.ss below. [§61.242-4(b)(2)]

s. Each valve shall be monitored monthly to detect leaks by the method specified in V.D.3.rr below

and shall comply with Conditions V.D.3.t through V.D.3.w below, except as provided in Conditions V.D.3.x, V.D.3.y, and V.D.3.z below,V.D.1.bb.1) through V.D.1.bb.8) above and §61.242-1(c). [§61.242-7(a)]

t. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. [§61.242-7(b)]

u. Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. [§61.242-7(c)]

v. When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in Conditions V.D.3.ee through V.D.3.ii below. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [§61.242-7(d)]

w. First attempts at repair include, but are not limited to, the following best practices where practicable: [§61.242-7(e)]

1) Tightening of bonnet bolts;
2) Replacement of bonnet bolts;
3) Tightening of packing gland nuts; and
4) Injection of lubricant into lubricated packing.

x. Any valve that is designated, as described in Condition V.D.4.h.2) below, for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of Condition V.D.3.s above if the valve: [§61.242-7(f)]

1) Has no external actuating mechanism in contact with the process fluid;
2) Is operated with emissions less than 500 ppm above background, as measured by the method specified in Condition V.D.3.ss below; and
3) Is tested for compliance with Condition V.D.3.x.2) above initially upon designation, annually, and at other times requested by the Administrator and the Department.

y. Any valve that is designated, as described in V.D.4.i.1) below, as an unsafe-to-monitor valve is exempt from the requirements of Condition V.D.3.s above if: [§61.242-7(g)]

1) The permittee of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with Condition V.D.3.s above; and,
2) The permittee of the valve has a written plan that requires monitoring of the valve as frequent as practicable during safe-to-monitor times.

z. Any valve that is designated, as described in Condition V.D.4.i.2) below, as a difficult-to-monitor valve is exempt from the requirements of Condition V.D.3.s above if: [§61.242-7(h)]

1) The permittee of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface;
2) The process unit within which the valve is located is an existing process unit; and
3) The permittee of the valve follows a written plan that requires monitoring of the valve at least

once per calendar year.

aa. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pressure relief devices in liquid service and connectors, the permittee shall follow either one of the following procedures, except as provided in §61.242-1(c): [§61.242-8(a)]

1) The permittee shall monitor the equipment within 5 days by the method specified in V.D.3.rr below or §61.245(b) and shall comply with the requirements of Conditions V.D.3.bb through V.D.3.dd below.
2) The permittee shall eliminate the visual, audible, olfactory, or other indication of a potential leak.

bb. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. [§61.242-8(b)]

cc. When a leak is detected: [§61.242-8(c)]

1) It shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Conditions V.D.3.ee through V.D.3.ii below.
2) The first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

dd. First attempts at repair include, but are not limited to, the best practices described under Condition V.D.3.w above. [§61.242-8(d)]

ee. Delay of repair of equipment for which leaks have been detected will be allowed if repair within 15 days is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown. [§61.242-10(a)]

ff. Delay of repair of equipment for which leaks have been detected will be allowed for equipment that is isolated from the process and that does not remain in VHAP service. [§61.242-10(b)]

gg. Delay of repair for valves will be allowed if: [§61.242-10(c)]

1) The permittee demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and
2) When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with Conditions V.D.1.aa through V.D.3.pp below.

hh. Delay of repair for pumps will be allowed if: [§61.242-10(d)]

1) Repair requires the use of a dual mechanical seal system that includes a barrier fluid system, and
2) Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.

ii. Delay of repair beyond a process unit shutdown will be allowed for a valve if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown.

[§61.242-10(e)]

jj. Except as provided in Conditions V.D.3.mm through V.D.3.oo below, each closed vent system shall be inspected according to the following procedures and schedule, as applicable. [§61.242-11(f)]

1) If the vapor collection system or closed vent system is constructed of hard-piping, the permittee shall comply with the following requirements:

a) Conduct an initial inspection according to the procedures in Condition V.D.3.rr below; and
b) Conduct annual visual inspections for visible, audible, or olfactory indications of leaks.

2) If the vapor collection system or closed vent system is constructed of ductwork, the permittee shall:
a) Conduct an initial inspection according to the procedures in Condition V.D.3.rr below; and
b) Conduct annual inspections according to the procedures in Condition V.D.3.rr below.

kk. Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided for in Condition V.D.3.ll below. [§61.242-11(g)]

1) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.
2) Repair shall be completed no later than 15 calendar days after the leak is detected.

ll. Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown, or if the permittee determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown. [§61.242-11(h)]

mm. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of Conditions V.D.3.jj.1)a) through V.D.3.jj.2) above. [§61.242-11(i)]

nn. Any parts of the closed vent system that are designated, as described in Condition V.D.3.pp.1) below, as unsafe-to-inspect are exempt from the inspection requirements of Conditions V.D.3.jj.1)a) through V.D.3.jj.2) above if they comply with the following requirements: [§61.242-11(j)]

1) The permittee determines that the equipment is unsafe-to-inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with Conditions V.D.3.jj.1)a) through V.D.3.jj.2) above; and
2) The permittee has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.

oo. Any parts of the closed vent system that are designated as difficult-to-inspect are exempt from the inspection requirements of Conditions V.D.3.jj.1)a) through V.D.3.jj.2) above if they comply with the following requirements: [§61.242-11(k)]

1) The permittee determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and
2) The permittee has a written plan that requires inspection of the equipment at least once every 5 years. A closed vent system is exempt from inspection if it is operated under a vacuum.

pp. The permittee shall record the following information: [§61.242-11(l)]

1) Identification of all parts of the closed vent system that are designated as unsafe-to-inspect, an explanation of why the equipment is unsafe-to-inspect, and the plan for inspecting the equipment.

2) Identification of all parts of the closed vent system that are designated as difficult-to-inspect, an explanation of why the equipment is difficult-to-inspect, and the plan for inspecting the equipment.

3) For each inspection during which a leak is detected, a record of the information specified in Condition V.D.4.f.

4) For each inspection conducted in accordance with Condition V.D.3.rr below during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

5) For each visual inspection conducted in accordance with Condition V.D.3.jj.1)b) above during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

qq. If the permittee elects to comply with the alternate standard for valves in VHAP service under §61.243-1, performance tests shall be conducted in the following manner: [§61.243-1(c)]

1) All valves in VHAP service within the process unit shall be monitored within 1 week by the methods specified in Condition V.D.3.rr below.
2) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
3) The leak percentage shall be determined by dividing the number of valves in VHAP service for which leaks are detected by the number of valves in VHAP service within the process unit.

rr. Monitoring, as required in Conditions V.D.6.a through V.D.6.f below, V.D.1.o through V.D.1.aa above, V.D.3.j through V.D.3.pp above, §V.D.1.cc through V.D.1.cc.4) above, V.D.1.j and V.D.1.k above, and V.D.3.e through V.D.3.i above, shall comply with the following requirements: [§61.245(b)]

1) Monitoring shall comply with Method 21 of Appendix A of 40 CFR Part 60.

2) The detection instrument shall meet the performance criteria of Method 21.

3) The instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21.

4) Calibration gases shall be:

a) Zero air (less than 10 ppm of hydrocarbon in air); and
b) A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppm methane or n-hexane.

5) The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible as described in Method 21.

ss. When equipment is tested for compliance with or monitored for no detectable emissions, the permittee shall comply with the following requirements: [§61.245(c)]

1) The requirements of Conditions V.D.3.rr.1) through V.D.3.rr.4) above shall apply.
2) The background level shall be determined, as set forth in Method 21.
3) The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible as described in Method 21.
4) The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

tt. Each piece of equipment within a process unit that can conceivably contain equipment in VHAP service is presumed to be in VHAP service unless the permittee demonstrates that the piece of equipment is not in VHAP service. For a piece of equipment to be considered not in VHAP service, it must be determined that the percent VHAP content can be reasonably expected never to exceed 10 percent by weight. For purposes of determining the percent VHAP content of the process fluid that is contained in or contacts equipment, procedures that conform to the methods described in ASTM Method D-2267 (incorporated by the reference as specified in §61.18) shall be used. [§61.245(d)(1)]

uu. The permittee may use engineering judgment rather than the procedures in Condition V.D.3.tt above to demonstrate that the percent VHAP content does not exceed 10 percent by weight, provided that the engineering judgment demonstrates that the VHAP content clearly does not exceed 10 percent by weight. When the permittee and the Department do not agree on whether a piece of equipment is not in VHAP service, however, the procedures in Condition V.D.3.tt above shall be used to resolve the disagreement. If the permittee determines that a piece of equipment is in VHAP service, the determination can be revised only after following the procedures in Condition V.D.3.tt above. [§61.245(d)(2)]

vv. Samples used in determining the percent VHAP content shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare. [§61.245(d)(3)]

4. Record Keeping Requirements:

a. The following information pertaining to the design of control equipment installed to comply with Conditions V.D.1.a through V.D.1.h above and Conditions V.D.3.a through V.D.3.c above shall be recorded and kept in a readily accessible location. [§61.138(a)]

1) Detailed schematics, design specifications, and piping and instrumentation diagrams.
2) The dates and descriptions of any changes in the design specifications.

b. The following information pertaining to sources subject to Conditions V.D.1.a through V.D.1.f above and sources subject to Conditions V.D.1.g and V.D.1.h above shall be recorded and

maintained for 2 years following each semiannual (and other) inspection and each annual maintenance inspection: [§61.138(b)]

1) The date of the inspection and the name of the inspector.
2) A brief description of each visible defect in the source or control equipment and the method and date of repair of the defect.
3) The presence of a leak, as measured using the method described in Condition V.D.3.ss above. The record shall include the date of attempted and actual repair and method of repair of the leak.
4) A brief description of any system abnormalities found during the annual maintenance inspection, the repairs made, the date of attempted repair, and the date of actual repair.

c. The permittee shall comply with the recordkeeping requirements of §61.246 as listed in V.D.4.d through V.D.4.m, below. [§61.138(c); §61.246(a)(1)]

d. The permittee of more than one process unit subject to the provisions of 40 CFR Part 61, Subpart V may comply with the recordkeeping requirements for these process units in one recordkeeping system if the system identifies each record by each process unit. [§61.138(c); §61.246(a)(2)]

e. When each leak is detected as specified in Conditions V.D.3.j through V.D.3.l above, V.D.3.s through V.D.3.dd above and V.D.3.e through V.D.3.i above, the following requirements apply: [§61.246(b)]

1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment.
2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in Condition V.D.3.u above and no leak has been detected during those 2 months.
3) The identification on equipment, except on a valve, may be removed after it has been repaired.

f. When each leak is detected as specified in Conditions V.D.3.j through V.D.3.l above, V.D.3.s through V.D.3.dd above and V.D.3.e through V.D.3.i above, the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location: [§61.246(c)]

1) The instrument and operator identification numbers and the equipment identification number.
2) The date the leak was detected and the dates of each attempt to repair the leak.
3) Repair methods applied in each attempt to repair the leak.
4) "Above 10,000" if the maximum instrument reading measured by the methods specified in Conditions V.D.3.rr through V.D.3.uu above after each repair attempt is equal to or greater than 10,000 ppm.
5) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.
6) The signature of the permittee (or designate) whose decision it was that repair could not be effected without a process shutdown.
7) The expected date of successful repair of the leak if a leak is not repaired within 15 calendar days.
8) Dates of process unit shutdowns that occur while the equipment is unrepaired.
9) The date of successful repair of the leak.

g. The following information pertaining to the design requirements for closed-vent systems and control devices described in V.D.1.aa through V.D.3.pp above shall be recorded and kept in a readily accessible location: [§61.246(d)]

1) Detailed schematics, design specifications, and piping and instrumentation diagrams.
2) The dates and descriptions of any changes in the design specifications.
3) A description of the parameter or parameters monitored, as required in Condition V.D.1.aa.4) above, to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring.
4) Periods when the closed-vent systems and control devices required in Conditions V.D.3.j through V.D.3.p above; V.D.3.q and V.D.3.r above, and V.D.1.o through V.D.1.u above are not operated as designed, including periods when a flare pilot light does not have a flame.
5) Dates of startups and shutdowns of the closed-vent systems and control devices required in Conditions V.D.3.j through V.D.3.p above; V.D.3.q and V.D.3.r above, and V.D.1.o through V.D.1.u above.

h. The following information pertaining to all equipment to which a standard applies shall be recorded in a log that is kept in a readily accessible location: [§61.246(e)]

1) A list of identification numbers for equipment (except welded fittings) subject to the requirements of this 40 CFR Part 60, Subpart V.

2) A list of identification numbers for equipment that the permittee elects to designate for:

a) No detectable emissions as indicated by an instrument reading of less than 500 ppm above background.
b) The designation of this equipment for no detectable emissions shall be signed by the permittee.

3) A list of equipment identification numbers for pressure relief devices required to comply with Condition V.D.1.o above.

4) The following information shall be recorded:

a) The dates of each compliance test required in Conditions V.D.1.o above, V.D.3.q and V.D.3.r above, V.D.3.x above, and V.D.3.h above.
b) The background level measured during each compliance test.
c) The maximum instrument reading measured at the equipment during each compliance test.
5) A list of identification numbers for equipment in vacuum service.

i. The following information pertaining to all valves subject to the requirements of Conditions V.D.4.i and V.D.4.j below and to all pumps subject to the requirements of §61.242-2(g) shall be recorded in a log that is kept in a readily accessible location: [§61.246(f)]

1) A list of identification numbers for valves and pumps that are designated as unsafe to monitor, an explanation for each valve or pump stating why the valve or pump is unsafe to monitor, and the plan for monitoring each valve or pump.
2) A list of identification numbers for valves that are designated as difficult to monitor, an

explanation for each valve stating why the valve is difficult to monitor, and the planned schedule for monitoring each valve.

j. The following information shall be recorded for valves complying with Conditions V.D.1.bb.5) through V.D.1.bb.7) above. [§61.246(g)]

1) A schedule of monitoring.
2) The percent of valves found leaking during each monitoring period.

k. The following information shall be recorded in a log that is kept in a readily accessible location: [§61.246(h)]

1) Design criterion required in V.D.3.f.4) above and an explanation of the design criterion; and
2) Any changes to this criterion and the reasons for the changes.

l. The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in the applicability section of this subpart and other specific subparts: [§61.246(i)]

1) An analysis demonstrating the design capacity of the process unit, and
2) An analysis demonstrating that equipment is not in VHAP service.

m. Information and data used to demonstrate that a piece of equipment is not in VHAP service shall be recorded in a log that is kept in a readily accessible location. [§61.246(j)]

n. The permittee shall maintain records of the monthly amount of coke oven gas, in mmcf, that is: [§2103.12.j]

1) Combusted in coke battery underfiring;
2) Combusted in boilers and other facilities; and
3) Combusted in flares.

o. The permittee of a facility subject to the provisions of 40 CFR 61, Subpart FF shall comply with Condition V.D.4.p below. Each record shall be maintained in a readily accessible location at the facility site for a period not less than five years from the date the information is recorded unless otherwise specified. [§61.356(a)]

p. The permittee shall maintain records that identify each waste stream at the facility subject to 40 CFR 61, Subpart FF, and indicate whether or not the waste stream is controlled for benzene emissions in accordance with this subpart. In addition the permittee shall maintain the following records: [§61.356(b)]

1) For each waste stream not controlled for benzene emissions in accordance with this 40 CFR 61, Subpart FF, the records shall include all test results, measurements, calculations, and other documentation used to determine the following information for the waste stream: waste stream identification, water content, whether or not the waste stream is a process wastewater stream, annual waste quantity, range of benzene concentrations, annual average flow-weighted benzene concentration, and annual benzene quantity.

5. Reporting Requirements:

a. The permittee shall submit a statement in writing notifying the Administrator and the Department that the requirements of 40 CFR 61, Subparts L & V, have been implemented. The statement is to contain the following information for each source: [§61.138(e)]

1) Type of source (e.g., a light-oil sump or pump).
2) For equipment in benzene service, equipment identification number and process unit identification: percent by weight benzene in the fluid at the equipment; and process fluid state in the equipment (gas/vapor or liquid).
3) Method of compliance with the standard (e.g., ``gas blanketing,'' ``monthly leak detection and repair,'' or ``equipped with dual mechanical seals''). This includes whether the plant plans to be a furnace or foundry coke by-product recovery plant for the purposes of V.D.3.c above.

b. The permittee shall submit a report semiannually in accordance with General Condition III.15.d above, which includes the following information: [§61.138(f)]

1) For sources subject to Conditions V.D.1.a through V.D.1.f above and sources subject to Conditions V.D.1.g and V.D.1.h above,

a) A brief description of any visible defect in the source or ductwork,
b) The number of leaks detected and repaired, and
c) A brief description of any system abnormalities found during each annual maintenance inspection that occurred in the reporting period and the repairs made.

2) For equipment in benzene service subject to V.D.1.j above, information required by V.D.5.d below.

3) For each exhauster subject to V.D.1.j and V.D.1.k above and V.D.3.e through V.D.3.i above for each quarter during the semiannual reporting period,

a) The number of exhausters for which leaks were detected as described in Conditions V.D.3.e and V.D.3.f.5) above,
b) The number of exhausters for which leaks were repaired as required in Conditions V.D.3.e and V.D.3.f.6) above
c) The results of performance tests to determine compliance with Condition V.D.3.h above conducted within the semiannual reporting period.

4) A statement signed by the permittee stating whether all provisions of 40 CFR Part 61, Subpart L, have been fulfilled during the semiannual reporting period.

5) Revisions to items reported according to Condition V.D.5.a above if changes have occurred since the initial report or subsequent revisions to the initial report.

c. The permittee of any piece of equipment to which 40 CFR 61, Subpart V applies shall submit a statement in writing notifying the Administrator and the Department that the requirements of V.D.1.o through V.D.1.aa.5) above; V.D.3.j through V.D.3.pp above; V.D.3.rr through V.D.3.vv above, V.D.4.c and V.D.4.e above; V.D.5.c through V.D.5.e below and V.D.6.a through V.D.6.f are being implemented. The statement is to contain the following information for each source: [§61.247(a)]

1) Equipment identification number and process unit identification.
2) Type of equipment (for example, a pump or pipeline valve).
3) Percent by weight VHAP in the fluid at the equipment.
4) Process fluid state at the equipment (gas/vapor or liquid).
5) Method of compliance with the standard (for example, "monthly leak detection and repair" or "equipped with dual mechanical seals").

d. The semiannual report in Condition V.D.5.b above shall also include the following information: [§61.247(b)]

1) Process unit identification.
2) For each month during the semiannual reporting period,
   a) Number of valves for which leaks were detected as described in V.D.3.t above or V.D.1.s through V.D.1.u above.
   b) Number of valves for which leaks were not repaired as required in V.D.3.v above.
   c) Number of pumps for which leaks were detected as described in V.D.3.k above.
   d) Number of pumps for which leaks were not repaired as required in V.D.3.l above.
   e) The facts that explain any delay of repairs and, where appropriate, why a process unit shutdown was technically infeasible.
   f) Dates of process unit shutdowns which occurred within the semiannual reporting period.
   g) Revisions to items reported according to V.D.5.c above if changes have occurred since the initial report or subsequent revisions to the initial report.
   h) The results of all performance tests and monitoring to determine compliance with no detectable emissions and with Conditions V.D.1.bb through V.D.1.dd above conducted within the semiannual reporting period.

e. An owner or operator electing to comply with the provisions of Conditions V.D.1.bb through V.D.1.dd above shall notify the Administrator and the Department of the alternative standard selected 90 days before implementing either of the provisions. [§61.247(d)]

f. If the total annual benzene quantity from facility waste is less than 10 Mg/yr (11 ton/yr) but is equal to or greater than 1 Mg/yr (1.1 ton/yr), then the permittee shall submit to the Administrator and the Department a report that updates the following information: [§61.357(a)(1), (a)(2), (a)(3), a(4) and (c)]

1) Total annual benzene quantity from facility waste determined in accordance with Condition V.D.2.b above.

2) A table identifying each waste stream and whether or not the waste stream will be controlled for benzene emissions in accordance with the requirements of this subpart.

3) For each waste stream identified as not being controlled for benzene emissions in accordance with the requirements of 40 CFR 61, Subpart FF, the following information shall be added to the table:

   a) Whether or not the water content of the waste stream is greater than 10 percent;
   b) Whether or not the waste stream is a process wastewater stream, product tank drawdown, or landfill leachate;
   c) Annual waste quantity for the waste stream;

d) Range of benzene concentrations for the waste stream;
e) Annual average flow-weighted benzene concentration for the waste stream; and
f) Annual benzene quantity for the waste stream.

4) The information required in Conditions V.D.5.f.1) through V.D.5.f.3) above should represent the waste stream characteristics based on current configuration and operating conditions. The permittee only needs to list in the report those waste streams that contact materials containing benzene. The report does not need to include a description of the controls to be installed to comply with the standard or other information required in §61.10(a).

g. The report shall be submitted annually and whenever there is a change in the process generating the waste stream that could cause the total annual benzene quantity from facility waste to increase to 10 Mg/yr (11 ton/yr) or more. If the information in the annual report required by Conditions V.D.5.f.1) through V.D.5.f.3) above is not changed in the following year, the permittee may submit a statement to that effect. [§61.357(c)]

6. Work Practice Standards:

None except as provided elsewhere.

E. Process P003: Desulfurization Plant

Process Description: Removes sulfur compounds from the coke oven gas after processing the gas in the by-products plant
Facility ID: P003
Max. Design Rate: 547,500 tons of coal per year
Capacity: 380,512 tons of coke per year
Raw Materials: Coke oven tail gas
Control Device: Afterburner

As identified above, Process P003 consists of a Sulfiban® Unit; SulFerox® Unit; and HCN Reactors

1. Restrictions:

a. The permittee shall not operate, or allow to be operated, any source in such manner that unburned coke oven gas is emitted into the open air. In addition, the permittee shall not flare, mix, or combust coke oven gas, or allow such gas to be flared, mixed or combusted, unless the concentration of sulfur compounds, measured as a daily average of hydrogen sulfide, in such gas is less than or equal to 34 grains per hundred dry standard cubic feet of coke oven gas. The concentration of sulfur compounds shall include tail-gas sulfur, measured as hydrogen sulfide, emitted from sulfur removal equipment. [2105.21.h.3, Administrative Consent Order dated July 19, 2012 Section V.B]

b. The permittee shall not operate, or allow to be operated, the desulfurization plant in such manner that the opacity of visible emissions from a flue or process fugitive emissions from the desulfurization plant, excluding uncombined water: [§2104.01.a]

1) Equal or exceed an opacity of 20% for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period; or,
2) Equal or exceed an opacity of 60% at any time.

c. The permittee shall not operate, or allow to be operated, the desulfurization plant in such manner that emissions of particulate matter from such process exceed seven (7) pounds in any 60 minute period or 100 pounds in any 24-hour period, except that no person subject to these requirements shall be required to reduce emissions to a greater degree than 99 percent. [§2104.02.b]

d. The permittee shall be permitted the Scheduled Annual Repair and Maintenance and Unscheduled Repair and Maintenance outage hours to provide preventative and unscheduled maintenance at its desulfurization plant. The permittee, at its discretion, need not include these hours in calculating the Daily Average Sulfur Compounds as required in V.E.3.c, below. In addition, permittee may submit a written notice to the Department each month for up to four (4) hours of planned maintenance, if in permittee's judgment, such Planned Maintenance is necessary, and these hours will be accounted for as Unscheduled Maintenance hours. [Administrative Consent Order dated July 19, 2012 Sections V.C, V.D, IX.K and IX.L]

1) Permittee is allowed 336 consecutive hours in each calendar year for a scheduled maintenance outage at the Desulfurization Plant to provide preventative and scheduled maintenance. The scheduled maintenance outage shall not be taken at any time during the months of May, June or September, unless otherwise approved in writing by the Department.

2) The permittee is allowed 240 hours in each calendar year for unscheduled repair or maintenance because of an upset condition or other repair or maintenance. In the event of unscheduled repair or maintenance at the Desulfurization Plant, permittee shall notify the Department verbally of the upset condition requiring the shutdown within sixty (60) minutes and shall confirm such notification in writing within seven (7) Days. Should Permittee complete the scheduled maintenance outage identified in V.E.1.d.1), above in less than 336 consecutive hours in any calendar year, in addition to its allotted 240 hours for unscheduled repair and maintenance, Permittee may use for unscheduled repair and maintenance any equivalent hours not used for the scheduled maintenance outage during that calendar year.

3) The permittee shall use a minimum of one (1) hour for the first increment of claimed unscheduled maintenance hours used on the COG Daily Average Sulfur Compounds Monthly Report (included in Administrative Consent Order dated July 19, 2012 as Appendix 1), then use hours in increments of one half hour (0.5) for additional unscheduled maintenance.

2. Testing Requirements:

The Department reserves the right to require additional emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Site Level Condition IV.13 entitled "Emissions Testing" and §2108.02. (§2103.12.h.1)

3. Monitoring Requirements:

a. The permittee, shall maintain, calibrate and operate a CEM device to monitor the sulfur content of the desulfurized COG in accordance with the manufacturer's procedures and specifications consistent with the Continuous Emission Monitoring Quality Assurance/Quality Control Manual, attached as Appendix 2 to the June 19, 2012 Administrative Consent Order. The CEM device may be replaced with another CEM approved by the Department. At such time the Continuous Emission Monitoring Quality Assurance/Quality Control Manual must be updated to reflect the new Division-approved CEM. [§2103.12.i.1-3; Administrative Consent Order dated June 19, 2012 Section VI.A]

b. The permittee shall monitor the blend of: (i) treated COG from the Sulfiban unit, and (ii) treated acid gas from the SulFerox® unit, at a location downstream from the point where the desulfurized acid gas is introduced back into the desulfurized COG stream at a location identified as the "meter building." The following sulfur compounds shall be continuously monitored: H2S, CS2, and COS. The sum of the actual measurements of H2S, CS2 and COS shall be combined with 0.04 grains of SO_2, expressed as grains H2S per hundred dscf of COG and shall be considered the concentration of sulfur compounds in the COG. The compound SO_2 may be monitored by a quarterly grab sample, and the value for the concentration of SO_2 may be adjusted quarterly upon agreement of the Department based upon grab sample results. [§2103.12.i.1-3; Administrative Consent Order dated July 19, 2012 Section VI.C]

c. The permittee shall calculate Daily Average Sulfur Compounds based on a nominal 24-hour average. The data used for calculating the averages will be uninterrupted hours of CEM hourly data, with one hour per Day being omitted for CEM calibrations. If CEM data is unavailable for the reasons identified in V.E.3.d below, the data acquired under V.E.3.d shall be used to calculate Daily Average Sulfur Compounds. For purposes of calculating Daily Average Sulfur Compounds, permittee, at its discretion, may also eliminate from the Daily Average Sulfur

Compounds calculation any Desulfurization Plant downtime taken for scheduled or unscheduled maintenance pursuant to V.E.1.d above, provided; however, that permittee may eliminate downtime only to the maximum extent of available scheduled and unscheduled maintenance hours pursuant to V.E.1.d above. To the extent Desulfurization Plant downtime exceeds the remaining available maintenance hours, or in the event Permittee elects not to utilize maintenance hours on the occasion of a Desulfurization Plant outage, for such period of Desulfurization Plant downtime or outage, the permittee shall calculate Daily Average Sulfur Compounds based on a concentration of sulfur compounds of 325 grains per 100 dscf of COG. The Monthly Average Sulfur Compounds shall be calculated as an arithmetic average using the hourly data that are used in the calculation of the Daily Average Sulfur Compounds during that month. [Administrative Consent Order dated June 19, 2012 Section V.D and §2103.12.i.1and i.2]

d. In the event that the CEM becomes non-operational or otherwise fails to provide certifiably accurate monitoring results, then permittee shall: [Administrative Consent Order dated June 19, 2012, Section V.B and §2103.12.i.1-.3]

1) Within three (3) Working Days of the CEM becoming non-operational, repair, adjust and recalibrate the CEM and place the CEM back into continuous operation, or

2) If the CEM cannot be repaired and must be replaced, then, (i) within six (6) months of the CEM becoming non-operational, subject to timely receiving any necessary approvals from the Department, replace the non-operational CEM with a similar new CEM of equal or greater technical accuracy and capabilities, adjust and recalibrate the CEM and place it into operation, and (ii) within fourteen (14) calendar days of the CEM becoming non-operational, substitute the Alternate CEM Method identified in Appendix 3 of the June 19, 2012 Administrative Consent Order.

3) In the event that the CEM becomes inoperative or otherwise fails to provide certifiably accurate monitoring results for more than three (3) hours:

a) Permittee shall utilize a laboratory based gas chromatograph to analyze COG samples collected at the meter building at approximately 8 a.m., 10 a.m., 12 p.m. and 2 p.m. until the CEM returns to operation. The analyses will be conducted by qualified personnel and recorded. The analyses will provide concentrations of H2S, COS and CS2, which will be combined with the grains of SO2 as determined in V.E.3.b above, and utilized in the calculation of the Daily Average Sulfur Compounds. The samples will be averaged to provide the sulfur compounds concentration of the COG for the period during which the CEM is non-operational

b) In the event that the laboratory based gas chromatograph becomes inoperative, or qualified personnel are not available to operate the chromatograph, permittee shall analyze the samples required by V.E.3.d.3)a) above using the Tutweiller procedure. Permittee shall analyze and report the H2S concentration of the clean COG from this procedure. Permittee shall estimate the COS and CS2, concentrations of the clean COG stream using the average results for each component as reported for the calendar month immediately preceding the unavailability of the CEM. Permittee shall sum the H2S concentrations with the average COS and CS2 concentrations identified in this section and with the grains of SO2 as determined in V.E.3.b above.

c) In the event that the CEM is operating properly but the data processing system becomes

inoperative for more than six (6) hours, Permittee shall record the hourly instantaneous CEM readings manually and use them in the average to compute the Daily Average Sulfur Compounds.

4. Record Keeping Requirements:

a. The permittee shall keep and maintain records of the continuously recorded sulfur concentration monitored in V.E.3.b above and each analysis required by V.E.3.d above. (§2103.12.j)

b. The permittee shall keep and maintain the following records for the Desulfurization Plant CEM System: [§2103.12.j and Administrative Consent Order dated July 19, 2012 Section VI.E]

1) All calibrations, zero and span drift checks, and other quality assurance procedures;
2) Identification of each period during which the CEM is non-operational or otherwise fails to provide certifiably accurate monitoring results;
3) The nature of repairs or adjustments performed;
4) Identification of each day on which the Daily Average Sulfur Compounds of COG calculated according to V.E.3.c exceeded 34 grains per 100 dscf;
5) The monthly quantity of COG treated at the Desulfurization Plant and the quantity of sulfur produced at the SulFerox® unit;
6) The results of each Daily Average Sulfur Compounds and Monthly Average Sulfur Compounds calculation; and

7) Any additional gas sampling and analysis required to be taken as provided in V.E.3.d.3).

c. The permittee shall maintain daily and 12 month rolling totals of fuel usage, COG sulfur concentration (expressed as H_2S and hours of operation for the COG bleeder flare. [§2103.12.h.5.B]

d. The permittee shall prepare and retain copies of work plans for each scheduled Desulfurization Plant maintenance outage that will detail the work proposed and provide a schedule in which the work shall be performed. Permittee shall provide the Department with notice of the scheduled maintenance outage at least fourteen (14) days prior to shutdown. [Administrative Consent Order dated July 19, 2012 Section IX.K]

5. Reporting Requirements:

a. Within thirty (30) Days of the end of each calendar quarter ending in March, June, September, or December, Permittee shall submit a COG Daily Average Sulfur Compounds Monthly Report containing the information in Appendix I to the July 19, 2012 Administrative Consent Order. The Department agrees to accept these Quarterly Reports as fully satisfying all periodic reporting requirements under Article XXI relating to COG Daily Average Sulfur Compounds. These Quarterly Reports shall include the following certification by a responsible official: [§2103.12.k and Administrative Consent Order dated July 19, 2012 Section VIII.A and B]

1) I certify to the best of my knowledge, information and belief that the information contained in, and accompanying this report is true and accurate. With respect to any portions of this report and its attachments for which I cannot personally verify truth and accuracy, I certify that such portions were prepared in the ordinary course of business by qualified personnel and I further certify that this information is true and accurate to the best of my knowledge, information and belief formed after inquiry reasonable under the circumstances. I am aware

that there may be significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

6. Work Practice Standards:

The permittee shall maintain on hand such spare parts for the Sulfiban Unit, the Sulferox Unit and other components of the Desulfurization Plant as shall be reasonably necessary to maintain continuous operation of the Desulfurization Plant. The permittee shall have a process for the prompt reordering, or initiation of the bidding process for the prompt reordering, and restocking of the above-described spare parts. [§2105.03]

F. P004: Clean Coke Oven Gas Main Flare

Process Description: Flare used for combusting excess coke oven gas.
Facility ID: P004
Max. Design Rate: 9.6 million cubic feet per day of COG,
Capacity: 9.6 million cubic feet per day
Raw Materials: Coke oven gas
Control Device: N/A

1. Restrictions

The permittee shall not operate, or allow to be operated, any source in such manner that unburned coke oven gas is emitted into the open air. In addition, the permittee shall not flare, mix, or combust coke oven gas, or allow such gas to be flared, mixed or combusted, unless the concentration of sulfur compounds, measured as a daily average of hydrogen sulfide, in such gas is less than or equal to 34 grains per hundred dry standard cubic feet of coke oven gas. The concentration of sulfur compounds shall include tail-gas sulfur, measured as hydrogen sulfide, emitted from sulfur removal equipment. [2105.21.h.3, Administrative Consent Order dated July 19, 2012 Section V.B]

2. Testing Requirements

The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with §2108.02. (§2103.12.h.1)

3. Monitoring Requirements

The permittee shall continuously monitor the sulfur compound concentration of the coke oven gas, expressed as hydrogen sulfide, in accordance with paragraphs V.E.3.b through V.E.3.d above. [§2103.12.i.1-i.3]

4. Record Keeping Requirements

a. The permittee shall maintain records in accordance with Conditions V.E.4.a through V.E.4.d above. [§2103.12.h.5.B]

b. All records shall be retained by the facility for at least five (5) years. These records shall be made available to the Department upon request for inspection and/or copying. [§2103.12.j.2]

5. Reporting Requirements

a. The permittee shall report to the Department every six months, in accordance with General Condition III.15.d above, all instances of non-compliance with the conditions of this permit along with all corrective action taken to restore the subject equipment to compliance. If all the terms and conditions of this permit are complied with during the reporting period, then no report is necessary under this permit condition. [§2103.12.k]

b. Reporting instances of non-compliance in accordance with V.F.5.a above, does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.8

above, if appropriate. [§2103.12.k]

6. Work Practice Standards

None except as provided elsewhere.

7. Additional requirements

None except as provided elsewhere.

G. Process P005: Coal and Coke Handling

Process Description: **Coal and Coke Handling**
Facility ID: **P005**
Max. Design Rate: **547,500 tons of coal per year**
Capacity: **380,512 tons of coke per year**
Raw Materials: **Coal and Coke**

As identified above, Process P005 consists of the following number and type of equipment: Covered conveyors, Bradford breaker for coal mixing, hammer mill, and two (2) coal mixer buildings. Coal is unloaded at an adjacent river terminal operated by an unrelated third-party. Coke is transferred from the coke wharf by covered conveyor to the coke screening station and gravity dropped to rail cars or trucks.

1. Restrictions:

a. The permittee shall not operate, or allow to be operated, the coal and coke crushing and screening operations in such manner that the opacity of visible emissions, excluding uncombined water vapor: [§2104.01.a]

1) Equal or exceed an opacity of 20% for a period or periods aggregating more than three minutes (3) minutes in any 60 minute period; or,
2) Equal or exceed an opacity of 60% at any time.

b. The permittee shall not conduct, or allow to be conducted; any materials handling operation in such manner that emissions from such operation are visible at or beyond the Shenango Inc. property line. [§2104.05]

2. Testing Requirements:

The Department reserves the right to require additional emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Site Level Condition IV.13 above and Article XXI §2108.02. (§2103.12.h.1)

3. Monitoring Requirements

The permittee shall perform monthly visible emission observations of the Coal and Coke Handling operations in accordance with Method 22 of Appendix A of 40 CFR Part 60, to determine compliance with Condition V.G.1.a above. [§2103.12.i]

4. Record Keeping Requirements:

The permittee shall record the monthly throughput of coal and coke processed in the crushing and screening operations and the monthly visible emission observations. [§2103.12.j]

5. Reporting Requirements:

The permittee shall submit semiannual reports to the Department of the monthly coal and coke throughputs and the monthly visual emission observations in accordance with General Condition III.15.d above. [§2103.12.k]

6. Work Practice Standards

None except as provided elsewhere.

7. Additional requirements

None except as provided elsewhere.

H. Process P006: Liquid Loading Operations

Process Description: **Liquid Loading Operations**
Facility ID: **P006**
Max. Design Rate: **4,847,684 gal of Tar; 1,705,305 gal of Light Oil and 1,295,900 gallons of Sodium Phenolate per Year**
Raw Materials: **Tar, Light Oil and Sodium Phenolate**
Control Device: **None**

As identified above, Process P006 consists of the following number and type of equipment: Tar Loading into Tank Trucks, Light Oil Loading into Tank Trucks and/or Railcars (no barge loading) and Sodium Phenolate Loading into Tank Trucks

1. Restrictions:

a. The permittee shall not operate, or allow to be operated, the Liquid Loading Operations (P006) in such manner that the opacity of visible emissions, excluding uncombined water vapor: [§2104.01.a]

1) Equal or exceed an opacity of 20% for a period or periods aggregating more than three minutes (3) minutes in any 60 minute period; or,
2) Equal or exceed an opacity of 60% at any time.

b. The total tar loading shall not exceed 4.85 million gallons per any twelve (12) month consecutive period. [§2103.12.g]

c. The total light oil loading shall not exceed 1.71 million gallons per any twelve (12) month consecutive period. [§2103.12.g]

d. The total sodium phenolate loading shall not exceed 1.30 million gallons per any twelve (12) month consecutive period. [§2103.12.g]

e. The permittee shall not conduct, or allow to be conducted, any materials handling operation in such manner that emissions from such operation are visible at or beyond the property line. [§2104.05]

f. Emission Unit P006 shall not exceed the emissions limitations in Table V-H-1 below: [§2103.12.g]

TABLE V-H-1
Emission Limitations for Liquid Loading Operations

POLLUTANT	HOURLY EMISSION LIMIT (lb/hr)	ANNUAL EMISSION LIMIT (tons/year)*
VOCs	27.40	2.09
Benzene	24.30	1.75
POM	0.58	0.15
Naphthalene	0.57	0.14
Toluene	2.0	0.15

*A year is defined as any consecutive 12-month period.

2. Testing Requirements:

The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Site Level Condition IV.13 entitled "Emissions Testing" and §2108.02. (§2103.12.h.1)

3. Monitoring Requirements:

The permittee shall monitor the monthly quantity of tar and sodium phenolate loaded into trucks and the monthly quantity of light oil loaded into trucks and into railcars to ensure compliance with conditions V.H.1.a through V.H.1.f. [§2102.04(e); §2103.12(i)]

4. Record Keeping Requirements:

The permittee shall record and maintain records of the monthly quantity of tar and sodium phenolate loaded into trucks and the monthly quantity of light oil loaded into trucks and into railcars. [§2103.12.j]

5. Reporting Requirements:

The permittee shall submit semiannual reports to the Department of the monthly quantity of tar and sodium phenolate loaded into trucks, the monthly quantity of light oil loaded into trucks and into railcars in accordance with General Condition III.15.d above. [§2103.12.k]

6. Work Practice Standards:

The permittee shall conduct the loading of tar, light oil and sodium phenolate consistent with good engineering and air pollution control practices. [§2105.03]

I. Process P007: Coal Tar Sludge Recycling Operation

Process Description: Coal waste sludge processing units producing liquefied sludge for re-use.
Facility ID: P007
Capacity: 534,700 gallons liquefied sludge per year
Raw Materials: Coal tar decanter sludge; Glycerin or No.4 Fuel Oil
Control Device(s): None

As identified above, Process P007 consists of the following number and type of equipment: Coal Tar Decanter Sludge Unloading to Conveyor; Tar/Glycerin (or fuel oil) Tank 12/13 Loading; Tank 13/13 Heating; Tar/Glycerin (or fuel oil) Loading to Coal Mixer and Coke Battery.

1. Restrictions:

a. The permittee shall not operate or allow to be operated this process unless each unit is properly operated and maintained according to the following specifications, at all times (Installation Permit 0025-I005, Condition V.A.1.a; §2103.12.a.2.B):

2) The maximum throughput for the process shall not exceed 534,700 gallons liquefied sludge during any 12 consecutive months;
3) The temperature of the mixing tank shall not exceed 180°F;
4) The hinged lid of the mixer shall be kept in a closed position except during periods of raw material additions, sampling or inspection; and
5) The lid of the decanter shall be kept in a closed position except during periods of raw material additions, sampling or inspection including during the transportation the coal waste sludge.

b. Only Glycerin or No.4 Fuel Oil may be used as diluents for the coal waste sludge recycling process. (Installation Permit 0025-I005, Condition V.A.1.b; §2103.12.a.2.B):

c. The permittee may use No. 2 fuel oil as diluents for the coal waste sludge recycling process. (§2103.12.a.2.B)

d. Emissions from this process shall not exceed the following at any time (Installation Permit 0025-I005, Condition V.A.1.c; §2102.04.b.6):

POLLUTANT	TPY [1]
Volatile Organic Compounds	0.62
Naphthalene	0.20
Benzene	0.13

[1] A year is defined as any 12 consecutive months.

2. Testing Requirements:

The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Article XXI §2108.02. (§2103.12.h.1)

3. Monitoring Requirements:

a. The permittee shall inspect all processes units daily in order to determine compliance with conditions V.I.1.a above when the equipment is in operation (Installation Permit 0025-I005, Condition V.A.3.a; §2103.12.i).

b. The permittee shall keep sufficient records on a daily basis to demonstrate compliance with Conditions above and V.I.1.b above. (Installation Permit 0025-I005, Condition V.A.3.b; §2103.12.i).

c. The permittee shall keep sufficient records on a daily basis to demonstrate compliance with Condition V.I.1.c above. (§2103.12.i).

4. Record Keeping Requirements:

a. The permittee shall keep and maintain sufficient records to demonstrate compliance with the requirements of this permit. Such records shall clearly demonstrate that all applicable requirements are met. (Installation Permit 0025-I005, Condition V.A.4.a; §2102.04.b.6)

b. The permittee shall keep records of the usage of coal waste sludge, diluents and the mixing tank operating temperature on a daily basis (Installation Permit 0025-I005, Condition V.A.4.b; §2102.04.b.6).

c. The permittee shall record all instances of non-compliance with the conditions of this permit and corrective action taken to restore compliance, upon occurrence. (Installation Permit 0025-I005, Condition V.A.4.c; §2102.04.b.6)

d. All records shall be retained by the facility for at least five (5) years. These records shall be made available to the Department upon request for inspection and/or copying. (Installation Permit 0025-I005, Condition V.A.4.d; §2102.04.b.6)

5. Reporting Requirements

a. The permittee shall report all instances of noncompliance with conditions from V.I.1.a to V.I.1.d above and corrective actions taken, to the Department every six consecutive months (Installation Permit 0025-I005, Condition V.A.5.a; §2102.04.b.6, §2102.04.e)

b. The permittee shall report changes in the raw materials used to the Department at least 10 business days in advance. (Installation Permit 0025-I005, Condition V.A.5.b; §2102.04.b.6, §2102.04.e)

c. A monthly emissions report shall be submitted to the Department on a semiannual basis. (Installation Permit 0025-I005, Condition V.A.5.c; §2102.04.b.6, §2102.04.e)

6. Work Practice Standard

None except as provided elsewhere.

7. Additional Requirements

None except as provided elsewhere.

J. T001 – T008: Storage Tanks Greater Than 40,000 Gallons

The following tanks are subject to this section:

TABLE V-J-1 – Storage Tanks Greater Than 40,000 Gallons

I.D.	TANK DESCRIPTION	CONTROL DEVICE(S)	MAXIMUM CAPACITY	RAW MATERIAL
T001 & T002	007A & 008A Tar Storage Tanks	Fixed Roof – Nitrogen Gas Blanketing	266,000 gallons, each	Tar
T003	013A Sodium Phenolate Storage Tank	Fixed Roof – Nitrogen Gas Blanketing	65,000 gallons	Sodium Phenolate
T004	020A Fuel Oil Storage Tank	NA	210,000 gallons	Fuel Oil
T005	020C Flushing Liquor Storage Tank	Fixed Roof – Nitrogen Gas Blanketing	200,000 gallons	Flushing Liquor
T006	020D Flushing Liquor Storage Tank	Fixed Roof – Nitrogen Gas Blanketing	70,000 gallons	Flushing Liquor
T007 & T008	021A & 021B Flushing Liquor Storage Tank	Fixed Roof – Nitrogen Gas Blanketing	50,000 gallons, each	Flushing Liquor

1. Restrictions:

a. The permittee shall not place or store, or allow to be placed or stored, a volatile organic compound having a vapor pressure greater than 1.5 psia under actual storage conditions in any stationary tank, reservoir, or other container with a capacity greater than 40,000 gallons, unless such tank, reservoir, or other container is a pressure tank capable of maintaining working pressure sufficient to at all times prevent vapor or gas loss to the atmosphere or is equipped with: [§2105.12(b)]

1) An external or internal floating roof, except that this control equipment shall not be permitted if the volatile organic compounds have a vapor pressure of 11.0 psia or greater under actual storage conditions; or
2) A vapor recovery and disposal system reducing uncontrolled emissions of volatile organic compounds by at least 90% by weight. Compliance testing shall be done in accordance with the provisions of §2107.04 of this Article.

b. The combined VOC emissions from Storage Tanks T001 through T008 shall not exceed 0.04 tons/year, at any time: [§2103.12(a)(2)(B)]

2. Testing Requirements:

The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Site Level Condition IV.13 and Article XXI, §2108.02. [§2103.12(h)(1)]

3. Monitoring Requirements:

None except as provided elsewhere.

4. Record Keeping Requirements:

a. For volatile organic compounds whose storage temperature is governed by ambient weather conditions, the vapor pressure under actual storage conditions shall be determined using a temperature which is representative of the average storage temperature for the hottest month of the year in which such storage takes place. [§2105.12(d)]

b. The permittee shall record and maintain records of the monthly throughput for Storage Tanks T001 through T008. [2103.12.j]

c. The permittee shall record all instances of non-compliance with the conditions of this permit and corrective action taken to restore compliance, upon occurrence. [§2103.12(h)(1)]

d. All records shall be retained by the facility for at least five (5) years. These records shall be made available to the Department upon request for inspection and/or copying. [§2103.12(j)(2)]

5. Reporting Requirements:

a. Reporting instances of non-compliance in accordance with condition V.J.4.c above does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.8, if appropriate. [§2103.12(k)(1)]

b. Monthly VOC and HAP emission estimates for the subject tanks shall be submitted to the Department upon request. Emissions estimates shall be based on storage tank emissions using Tanks 4.0 or other EPA approved methodology and HAP estimations based on speciation data supplied by the manufacturer and EPA approved methodology. [§2103.12(a)(2)(B)]

6. Work Practice Standards:

None, except as provided elsewhere.

K. T009 – T019: Storage Tanks Less Than 40,000 Gallons and Greater Than 2,000 Gallons

The following tanks are subject to this section:

I.D.	TANK DESCRIPTION	CONTROL DEVICE(S)	MAXIMUM CAPACITY	RAW MATERIAL
T009 & T010	003A & 004A Light Oil Storage Tanks	Fixed Roof – Nitrogen Gas Blanketing	20,000 gallons, each	Light oil
T011	009A 50% Caustic Soda Storage Tank	NA	35,000 gallons	50% Caustic Soda
T012	010A Tar Storage Tank	Fixed Roof – Nitrogen Gas Blanketing	13,500 gallons	Tar
T013	018A Wash Oil Storage Tank	Fixed Roof – Nitrogen Gas Blanketing	20,000 gallons	Wash Oil
T014	019A 75% MEA Storage Tank	NA	10,000 gallons	Monoethanol-amine (MEA)
T015	019B 15% MEA Storage Tank	NA	16,500 gallons	Monoethanol-amine (MEA)
T016	020B Flushing Liquor Storage Tank	Fixed Roof – Nitrogen Gas Blanketing	20,000 gallons	Flushing Liquor
T017	020E Flushing Liquor Storage Tank	Fixed Roof – Nitrogen Gas Blanketing	15,300 gallons	Flushing Liquor
T018 & T019	023A-1 & 023A-2 Tar Storage Tank	Fixed Roof – Nitrogen Gas Blanketing	15,000 gallons, each	Tar
T015A	Light Oil Tank (Inactive)	Fixed Roof	20,000 gallons	Light Oil
T016A	Holder Oil (Inactive)	Fixed Roof	20,000 gallons	Holder Oil

1. Restrictions:

a. The permittee shall not place or store, or allow to be placed or stored, a volatile organic compound having a vapor pressure of 1.5 psia under actual storage conditions in any above-ground stationary storage tank having a capacity equal to or greater than 2,000 gallons but less than or equal to 40,000 gallons, unless there is in operation on such tank pressure relief valves which are set to release at the higher of 0.7 psig of pressure or 0.3 psig of vacuum or at the highest possible pressure and vacuum in accordance with state or local fire codes, National Fire Prevention Association guidelines, or other national consensus standard approved in writing by the Department. [§2105.12(a)]

b. The permittee shall not reactivate the following storage tanks unless the permittee has submitted a reactivation plan request to, and received a written reactivation plan approval from the

Department: [§2103.13(d)]

1) Storage Tank 015A, 20,000 gallon light oil tank; and
2) Storage Tank 016A, 20,000 gallon holder oil.

2. Testing Requirements:

The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Site Level Condition IV.13 above and Article XXI, §2108.02. [§2103.12(h)(1)]

3. Monitoring Requirements:

None except as provided elsewhere.

4. Record Keeping Requirements:

a. For volatile organic compounds whose storage temperature is governed by ambient weather conditions, the vapor pressure under actual storage conditions shall be determined using a temperature which is representative of the average storage temperature for the hottest month of the year in which such storage takes place. [§2105.12(d)]

b. The permittee shall record and maintain records of the monthly throughput for Storage Tanks T009 through T019. [2103.12.j]

c. The permittee shall record all instances of non-compliance with the conditions of this permit and corrective action taken to restore compliance, upon occurrence. [§2103.12(h)(1)]

d. All records shall be retained by the facility for at least five (5) years. These records shall be made available to the Department upon request for inspection and/or copying. [§2103.12(j)(2)]

5. Reporting Requirements:

a. Reporting instances of non-compliance in accordance with condition V.K.4.c above does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.8 above, if appropriate. [§2103.12(k)(1)]

b. Monthly VOC and HAP emission estimates for the subject tanks shall be submitted to the Department upon request. Emissions estimates shall be based on storage tank emissions using Tanks 4.0 or other EPA approved methodology and HAP estimations based on speciation data supplied by the manufacturer and EPA approved methodology. [§2103.12(a)(2)(B)]

6. Work Practice Standards:

None, except as provided elsewhere.

L. E001: Coal Storage Pile Erosion

Process Description: 2.45 acres of coal storage piles
Facility ID: E001
Capacity: 15,000 tons (normal inventory)

1. Restrictions:

a. The permittee shall not operate, or allow to be operated, the coal storage piles in such manner that emissions from the coal storage piles: [§2105.40]
   1) Are visible at or beyond the property line;
   2) Have an opacity of 20% or more for a period or periods aggregating more than three (3) minutes in any 60 minute period; or
   3) Have an opacity of 60% or more at any time.

2. Testing Requirements:

None except as provided elsewhere.

3. Monitoring Requirements (§2102.04.e):

None except as provided elsewhere.

4. Record Keeping Requirements (§2103.12.j & k):

The permittee shall record and maintain records of the monthly coal throughput and the number of acres used each month for coal storage.

5. Reporting Requirements:

The permittee shall submit semiannual reports to the Department of the monthly coal throughput and the number of acres used each month for coal storage in accordance with General Condition III.15.d above. [§2103.12.k]

M. E002: Coke Storage Pile Erosion

Process Description: Approximately 7 acres of coke storage piles
Facility ID: E002
Capacity: 3,500 tons (normal inventory)

1. Restrictions:

a. The permittee shall not operate, or allow to be operated, the coke storage piles in such manner that emissions from the coke storage piles: [§2105.40]
   1) Are visible at or beyond the property line;
   2) Have an opacity of 20% or more for a period or periods aggregating more than three (3) minutes in any 60 minute period; or
   3) Have an opacity of 60% or more at any time.

2. Testing Requirements:

None except as provided elsewhere.

3. Monitoring Requirements (§2102.04.e):

None except as provided elsewhere.

4. Record Keeping Requirements (§2103.12.j & k):

The permittee shall record and maintain records of the monthly coke throughput and the number of acres used each month for coke storage.

5. Reporting Requirements:

a. The permittee shall submit semiannual reports to the Department of the monthly coke throughput and the number of acres used each month for coke storage in accordance with General Condition III.15.d above. [§2103.12.k]

N. E003: Coke Breeze Storage Pile Erosion

Process Description: 0.02 acres of coke breeze storage piles
Facility ID: E003
Capacity: 500 tons (normal inventory)

1. Restrictions:

a. The permittee shall not operate, or allow to be operated, the coke breeze storage piles in such manner that emissions from the piles: [§2105.40]
   1) Are visible at or beyond the property line;
   2) Have an opacity of 20% or more for a period or periods aggregating more than three (3) minutes in any 60 minute period; or
   3) Have an opacity of 60% or more at any time.

2. Testing Requirements:

None except as provided elsewhere.

3. Monitoring Requirements (§2102.04.e):

None except as provided elsewhere.

4. Record Keeping Requirements:

The permittee shall record and maintain records of the monthly coke breeze throughput and the number of acres used each month for coke breeze storage. (§2103.12.j k)

5. Reporting Requirements: (§2103.12.k)

None except as provided elsewhere.

O. F001: Paved and Unpaved Plant Roads and Parking Lots

Process Description: 1.0 miles of paved roads, 0.8 miles of unpaved roads and 1.2 acres of parking lots
Facility ID: F001

1. Restrictions:

a. The permittee shall not operate, or allow to be operated, any vehicles on plant roadways or parking lots in such manner that emissions: [§2105.42]
   1) Are visible at or beyond the property line;
   2) Have an opacity of 20% or more for a period or periods aggregating more than three (3) minutes in any 60 minute period; or
   3) Have an opacity of 60% or more at any time.

b. The permittee shall take all reasonable actions to prevent fugitive air contaminants from becoming air-borne. Such actions may include, but are not limited to: [§2105.49]
   1) The use of asphalt, oil, water, or suitable chemicals for dust control;
   2) The paving and maintenance of roadways, parking lots and the like;
   3) The prompt removal of earth or other material which has been deposited by leaks from transport, erosion or other means; and
   4) The adoption of work or other practices to minimize emissions.

2. Testing Requirements:

None except as provided elsewhere.

3. Monitoring Requirements (§2102.04.e):

None except as provided elsewhere.

4. Record Keeping Requirements (§2103.12.j & k):

The permit shall record and maintain records of the application of water or dust suppressant chemicals were applied to unpaved roads. The records shall include the date of application, amount of water or dust suppressant applied, and the length of unpaved roads treated. [(§2103.12.j]

5. Reporting Requirements:

None except as provided elsewhere.

P. F002: Miscellaneous Solvent and Methanol Usage

Process Description: **Miscellaneous Solvent and Methanol Usage**
Facility ID: **F002**
Raw Materials: **Mineral Spirits & Methanol**
Control Device: **None**

As identified above, Process F002 consists of the use of mineral spirits for equipment cleaning and methanol for the coke oven lid sealant and the facility compressed air system.

1. Restrictions:

a. The permittee shall not use solvents for equipment cleaning that contain halogenated HAP solvents, in a total concentration more than 5 percent by weight, as a cleaning and/or drying agent. Use of a solvent as a cleaning or drying agent with a halogenated HAP solvent content greater than 5 percent by weight may subject the permittee to the requirements in 40 CFR Part 63, Subpart T. [40 CFR 63, §63.460(a)]

b. The permittee shall use mineral spirits for equipment cleaning that is not performed as part of a degreasing operation(s) as described in §2105.15. The permittee shall obtain approval from the Department prior to using a solvent other than mineral spirits or methanol for equipment cleaning. [§2103.12.h.6]

c. The use of methanol in the coke oven lid sealant compound and the facility compressed air system, and for other purposes throughout the Neville Island Coke Plant shall not exceed 650 pounds per month and 3.8 tons per year. [§2103.12.h.6]

d. **Emissions Limitations: VOC e**missions from the use of mineral spirits and methanol shall not exceed 8.0 lbs/hr and 4.0 tons/year.

2. Testing Requirements:

None except as provided elsewhere.

3. Monitoring Requirements (§2102.04.e):

None except as provided elsewhere.

4. Record Keeping Requirements (§2103.12.j & k):

The permittee shall record and maintain records of the annual quantity of solvent and methanol used.

5. Reporting Requirements:

None except as provided elsewhere.

6. Work Practice Standards:

The permittee shall perform the cleaning of equipment with mineral spirits and shall use methanol in a manner consistent with good engineering and air pollution control practices. [§2105.03]

Q. B001: Boiler No. 1

Process Description: **Boiler to provide process steam**
Facility ID: **B001**
Max. Design Rate: **71.6 MMBtu/hr**
Raw Materials: **Coke Oven Gas and Natural Gas**
Control Device: **Low-NO_X Burners and Flue Gas Recirculation**

As identified above, Boiler No. 1 consists of the following number and type of equipment:

1. Restrictions:

a. Only coke oven gas and/or natural gas shall be combusted in Boiler B001. **[**§2102.04.b.6 and Installation Permit 0025-I003]

b. Heat input to boiler B001 shall not exceed 71.6 MMBtu/hr based on the heating value as determined by a calorimeter installed in accordance with V.A.3.c. [§2102.04.b.6 and Installation Permit 0025-I003]

c. The permittee shall not operate, or allow to be operated, any source in such manner that unburned coke oven gas is emitted into the open air. In addition, the permittee shall not flare, mix, or combust coke oven gas, or allow such gas to be flared, mixed or combusted unless the concentration of sulfur compounds, measured as a daily average of hydrogen sulfide, in such gas is less than or equal to 34 grains per hundred dry standard cubic feet of coke oven gas. The concentration of sulfur compounds specified shall include the tail-gas sulfur, measured as hydrogen sulfide, emitted from sulfur removal equipment. [§2105.21.h.3, §2102.04.b.6 and Installation Permit 0025-I003]

d. Emissions of SO_2 shall not exceed 0.165 lb/MMBtu when combusting coke oven gas or 0.0006 lb/MMBtu when combusting natural gas. [§2102.04.b.6 and Installation Permit 0025-I003]

e. The SO_2 emission limits and coke oven gas sulfur limits apply at all times, including periods of startup, shutdown and malfunction of the boiler. [§2102.04.b.6; §2105.21.h.3 and Installation Permit 0025-I003]

f. Emissions of filterable particulate matter shall not exceed 0.010 lb/MMBtu when combusting coke oven gas or 0.005 lb/MMBtu when combusting natural gas. [§2102.04.b.6 and Installation Permit 0025-I003]

g. Emissions of NO_X shall not exceed 0.090 lb/MMBtu when combusting coke oven gas or 0.040 lb/MMBtu when combusting natural gas. (§2102.04.b.6 and Installation Permit 0025-I003]

h. Emissions of CO shall not exceed 0.075 lb/MMBtu when combusting coke oven gas or 0.084 lb/MMBtu when combusting natural gas. [§2102.04.b.6 and Installation Permit 0025-I003]

i. Emissions of VOC shall not exceed 0.0074 lb/MMBtu when combusting coke oven gas or 0.0042 lb/MMBtu when combusting natural gas. [§2102.04.b.6 and Installation Permit 0025-I003]

j. The permittee shall not operate, or allow to be operated, Boiler B001in such manner that the opacity of visible emissions, excluding uncombined water, from Boiler B001 is: [§2104.01 and Installation Permit 0025-I003]

1) equal to or exceeds an opacity of 20% for a period or periods aggregating more than three (3) minutes in any 60-minute period;
2) equal or exceed an opacity of 60% at any time.

k. Visible emissions resulting solely from the cold start of Boiler B001 are excluded from the opacity requirements of Condition V.Q.1.j above, if such a cold start has been reported as required by §2108.01.d. [§2104.01.b.3 and Installation Permit 0025-I003]

l. Emissions from Boiler 1 (B001) shall not exceed the emission limits in Table V-Q-1 at any time [Installation Permit 0025-I003]

Table V-Q-1 - Boiler No. 1 Emission limitations

POLLUTANT	Natural Gas (lbs/hr)	Coke Oven Gas (lbs/hr)	Tons/Year[1]
Nitrogen Oxides (NO_x)	2.86	6.44	28.22
Carbon Monoxide (CO)	6.01	5.37	26.34
Sulfur Dioxide (SO_2)	0.04	11.81	51.75
Volatile Organic Compounds (VOC)	0.30	0.53	2.32
Particulate Matter, filterable	0.36	0.72	3.14
$PM_{10,}$ filterable	0.36	0.72	3.14

[1] A year is defined as any consecutive 12-month period

2. Testing Requirements:

a. The permittee shall perform emissions testing on boiler B001 in accordance with §2108.02.c. at least once every 2 years for CO and NO_x. Such testing shall be in accordance with the requirements of 40 CFR Part 60.8, §2108.02 and §2107.04, or other such methods as approved by the Department. [§2105.13.c.3 and Installation Permit 0025-I003]

b. The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Site Level Condition IV.13 entitled "Emissions Testing." [§2103.12.h.1 and Installation Permit 0025-I003]

3. Monitoring Requirements:

a. The volume of coke oven gas, natural gas and air combusted in boiler B001 shall each be monitored and recorded on a continuous basis according to a Fuel Monitoring Plan submitted to the Department for written approval. Revisions to this Plan may be made with written Department approval. [§2103.12.i and Installation Permit 0025-I003]

b. The permittee shall install, maintain, and operate a calorimeter to continuously measure and record the heating value of the fuel combusted in Boiler B001. [§2103.12.i.1-i.3and Installation Permit 0025-I003]

c. The permittee shall continuously monitor and record the sulfur compound concentration, expressed as H_2S, of the coke oven gas in accordance with Conditions V.Q.3.d through V.Q.3.f below. [§2103.12.i.1-i.3and Installation Permit 0025-I003]

d. The permittee shall continuously monitor the blend of treated coke oven gas from the Sulfiban unit, and treated acid gas from the Sulferox® unit downstream from the point where the desulfurized acid gas is introduced back into the desulfurized coke oven gas stream at a location identified as the "meter building." The following sulfur compounds shall be continuously monitored: H_2S, CS_2, and COS. The compound SO_2 shall be monitored by a quarterly grab sample in accordance with a protocol acceptable to the Department. The sum of the actual measurements of H_2S, CS_2 and COS shall be combined with 0.4 grains of SO2, expressed as equivalent grains of H_2S per 100 dry standard cubic feet of coke oven gas, and shall be considered the hourly concentration of sulfur compounds in the coke oven gas. [§2103.12.i.1-i.3; Installation Permit 0025-I003, Condition V.A.3.d; and Consent Order and Agreement, Condition VI.C, dated June 19, 2012]

e. The permittee shall calculate the daily average sulfur compound concentration, expressed as H_2S, based on a nominal 24-hour average. The data used for the calculation of the averages shall be the uninterrupted hours of CEM hourly data, with one hour per day being omitted for CEM calibrations. If CEM data is unavailable for reasons identified in Condition V.Q.3.f below, the data acquired under Condition V.Q.3.f below shall be used to calculate the daily average sulfur emissions. [§2103.12.i.1 and i.2 and Installation Permit 0025-I003]

f. In the event that the CEMS becomes inoperative or otherwise fails to provide certifiably accurate monitoring results for more than three (3) hours: [§2103.12.i.1-i.3 and Installation Permit 0025-I003]

1) The permittee shall utilize a laboratory based gas chromatograph to analyze coke oven gas samples to be collected at the meter building at approximately 8 a.m., 10 a.m., 12 p.m. and 2 p.m. until the CEMS returns to operation. The analyses shall be conducted by qualified personnel and shall be recorded. The analyses shall provide concentrations of H_2S, COS and CS_2 which shall be combined with the grains of SO_2 as determined in Condition V.Q.3.d above and utilized in the calculation of the daily average sulfur emissions. The samples will be averaged to provide the sulfur compound concentration of the coke oven gas for the period during which the CEM is non-operational.

2) In the event that the laboratory based gas chromatograph becomes inoperative, or qualified personnel are not available to operate the chromatograph, the permittee shall analyze the samples required by Condition V.Q.3.f.1) above using the Tutweiller procedure. The permittee shall analyze and report the H_2S concentration of the coke oven gas from this procedure. The permittee shall estimate the COS and CS_2 concentrations of the coke oven gas stream using the average results for each component as reported for the day immediately preceding the unavailability of the CEM. The permittee shall sum the H_2S concentrations with the average COS and CS_2 concentrations identified in this section and with the grains of SO_2 as determined in Condition V.Q.3.d above.

3) In the event that the CEM is operating properly but the data processing system becomes inoperative for more than six (6) hours, the permittee shall record the hourly instantaneous CEM readings manually and use them in the average to compute the daily average sulfur emissions.

4. Record Keeping Requirements:

a. The permittee shall record and maintain records of the type and amount of each fuel combusted during each day in Boiler B001. [§60.48c(g), §2103.12.j.1 and Installation Permit 0025-I003]

b. The permittee shall continuously record the average daily (midnight to midnight) concentration of sulfur compounds, expressed as H2S, monitored in Conditions V.Q.3.c through V.Q.3.f above, in the coke oven gas combusted in Boiler B001. [§2103.12.j.1and Installation Permit 0025-I003]

c. The permittee shall maintain records of the hourly heating value of the fuel combusted in Boiler B001 as measured by a calorimeter. [§2103.12.j.1and Installation Permit 0025-I003]

d. All records required under this section shall be maintained at the facility for a period of five years following the date of such record. [§2103.12.j.2, 40 CFR, §60.48c(i)and Installation Permit 0025-I003]

5. Reporting Requirements:

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a. The permittee shall submit quarterly reports to the Department within 30 days after the end of the calendar quarter. For each month of the reporting period, the report shall contain the total monthly amount of each fuel combusted. [§2103.12.j and Installation Permit 0025-I003]

b. The permittee shall submit monthly reports of the daily (midnight to midnight) average sulfur compound concentration expressed as grains of H_2S per 100 dscf of coke oven gas. Reports are due on or before the 30^{th} day of the month following the month reported. [§2103.12.j.and Installation Permit 0025-I003]

6. Work Practice Standard:

Boiler B001 shall be: [2102.04.b.6 and Installation Permit 0025-I003]

1) Operated in such a manner as not to cause air pollution;
2) Operated and maintained in a manner consistent with good operating and maintenance practices.
3) Operated and maintained in accordance with the manufacturer's specifications and the applicable terms and conditions of this permit.

7. Additional Requirements: (§2102.04.b.6)

R. B002 & B003: Boilers No. 2 & 3

Facility ID:	Boilers No. 2 (B002) and No. 3 (B003)
Max. Design Rate/Units:	96.8 MMBtu/hr (each boiler)
Raw Material(s)/Fuel(s):	Coke oven gas; natural gas; no. 2 fuel oil
Control Device(s):	Coke oven gas desulfurization fuel pretreatment, flue gas recirculation for NO_x control, Low-NO_x burners

The permittee is also subject to the following conditions.

1. Restrictions:

a. Only coke oven gas, natural gas or no. 2 fuel oil shall be combusted in each boiler. [§2102.04.b.6 and Installation Permit 0025-I003]

b. No. 2 fuel oil shall only be combusted in Boilers B002 and B003 as a backup fuel in emergency situations, including where natural gas is not available or during periods of natural gas curtailment. During periods of curtailment, the permittee shall use their natural gas allotment as specified by the curtailment notice before combusting No. 2 fuel oil in Boilers B002 and B003. The permittee shall notify the Department, before combusting No. 2 fuel oil and provide the Department with a copy of the curtailment notice. [§2102.04.b.6 and Installation Permit 0025-I003]

c. The heat input per boiler shall not exceed 96.8 MMBtu/hr based on the higher heating value of the fuel being combusted at any time. The heating value shall be determined by a calorimeter for gaseous fuels and the fuel supplier certification or fuel analysis for fuel oil. [§2102.04.b.6 and Installation Permit 0025-I003]

d. Maximum consumption of no. 2 fuel oil for each boiler shall not exceed 686 gallons per hour. [§2102.04.b.6 and Installation Permit 0025-I003]

e. Maximum combined fuel oil consumption in B002 and B003 shall not exceed 990,000 gallons during any consecutive 12-month period. [§2102.04.b.6 and Installation Permit 0025-I003]

f. The permittee shall not operate, or allow to be operated, any source in such manner that unburned coke oven gas is emitted into the open air. In addition, the permittee shall not flare, mix, or combust coke oven gas, or allow such gas to be flared, mixed or combusted, unless the concentration of sulfur compounds, measured as a daily average of hydrogen sulfide, in such gas is less than or equal to 34 grains per hundred dry standard cubic feet of coke oven gas. The concentration of sulfur compounds shall include tail-gas sulfur, measured as hydrogen sulfide, emitted from sulfur removal equipment. [§2105.21.h.3.A and Installation Permit 0025-I003]

g. Only no. 2 fuel oil meeting the specifications defined by ASTM D396-78, "Standard Specifications for Fuel Oils," shall be combusted, except that the sulfur content shall not exceed 0.2% (wt.). [§60.42c(d) and §2102.04.b.6 and Installation Permit 0025-I003]

h. The permittee, when combusting fuel oil, shall not cause to be discharged or allow to be discharged into the atmosphere any gases from Boiler B002 or B003 that contain SO_2 in excess of 0.209 lb/MMBtu heat input. [§60.42c(d), §60.42c(e) and §2102.04.b.6. and Installation Permit

0025-I003]

i. The SO_2 emission limits and the fuel oil sulfur limits apply at all times, including periods of startup, shutdown, and malfunction of the boilers. [§60.42c(i) and Installation Permit 0025-I003]

j. Emissions of SO_2 shall not exceed 0.165 lb/MMBtu when combusting coke oven gas or 0.0006 lb/MMBtu when combusting natural gas. [§2102.04.b.6 and Installation Permit 0025-I003]

k. Emissions of filterable particulate matter from Boiler B002 or B003 shall not exceed 0.010 lb/MMBtu when combusting coke oven gas or 0.005 lb/MMBtu when combusting natural gas or 0.015 lb/MMBtu when combusting fuel oil. [§2102.04.b.6 and Installation Permit 0025-I003]

l. Emissions of NO_X from Boiler B002 or B003 shall not exceed 0.090 lb/MMBtu when combusting coke oven gas or 0.040 lb/MMBtu when combusting natural gas or 0.10 lb/MMBtu when combusting fuel oil. [§2102.04.b.6 and Installation Permit 0025-I003]

m. Emissions of CO from Boiler B002 or B003 shall not exceed 0.075 lb/MMBtu when combusting coke oven gas or 0.086 lb/MMBtu when combusting natural gas or 0.092 lb/MMBtu when combusting fuel oil. [§2102.04.b.6 and Installation Permit 0025-I003]

n. Emissions of VOC from Boiler B002 or B003 shall not exceed 0.0076 lb/MMBtu when combusting coke oven gas or 0.0042 lb/MMBtu when combusting natural gas or 0.009 lb/MMBtu when combusting fuel oil. [§2102.04.b.6 and Installation Permit 0025-I003]

o. When combusting no. 2 fuel oil in Boilers B002 or B003, the permittee shall not cause to be discharged into the atmosphere any gases that exhibit greater than 20 percent opacity (6-minute average) except for one 6-minute period per hour of not more than 27 percent opacity. [§60.43c(c) and Installation Permit 0025-I003]

p. The opacity standard in V.B.1.o above, applies at all times except during periods of startup, shutdown, or malfunction. [§60.43c(c) and Installation Permit 0025-I003]

q. The permittee shall not operate, or allow to be operated, Boiler B002 or B003 in such manner that the opacity of visible emissions, excluding uncombined water, is: [§2104.01.a and Installation Permit 0025-I003]

1) equal to or exceeds an opacity of 20% for a period or periods aggregating more than three (3) minutes in any 60-minute period;
2) equal or exceed an opacity of 60% at any time.

r. Visible emissions resulting solely from the cold start of Boiler B002 or B003 are excluded from the opacity requirements of Condition V.R.1.q above, if such a cold start has been reported as required by §2108.01.d. [§2104.01.b.3 and Installation Permit 0025-I003]

s. Emissions from package boilers B002 and B003 shall not exceed the emission limit in Table V-R-1 at any time [§2102.04.b.6 and Installation Permit 0025-I003]:

Table V-R-1 - Boiler No. 2 and No. 3 Emission Limitations

POLLUTANT	Coke Oven Gas (lb/hr)	Natural Gas (lb/hr)	No. 2 Fuel Oil (lb/hr)	Each Boiler (TPY) [1]	B002 & B003 Combined Emissions (TPY)
Nitrogen Oxides (NO_x)	8.71	3.87	9.60	38.82	76.98
Carbon Monoxide (CO)	7.26	8.32	8.84	36.85	73.31
Sulfur Dioxide (SO_2)	15.97	0.06	20.07	72.94	142.90
Volatile Organic Compounds (VOC)	0.74	0.41	0.86	3.31	6.53
Particulate Matter, filterable	0.97	0.48	1.44	4.58	8.81
$PM_{10,}$ filterable	0.97	0.48	1.44	4.58	8.81

[1] A year is defined as any consecutive 12-month period

2. Testing Requirements:

a. When firing oil in boilers B002 or B003, where the permittee seeks to demonstrate compliance with the SO_2 standards based on fuel supplier certification, the performance test shall consist of the certification from the fuel supplier, as described under §60.48c(f)(1). [§60.44c(h) and Installation Permit 0025-I003].

b. The permittee shall conduct an initial performance test in accordance with §2108.02. and shall conduct subsequent performance tests at least once every two years thereafter, to determine compliance with the nitrogen oxide emission limitations specified in Condition V.R.1.l above for each boiler, using Methods 7, 7A, 7C, 7D, and 7E in 40 CFR Part 60, Appendix A. Only coke oven gas shall be fired in the boilers during the performance test to demonstrate compliance with the NO_X emission limitation of 0.09 lbs/MMBtu. [§2108.02 and Installation Permit 0025-I003]

c. The permittee shall conduct an initial performance test and shall conduct subsequent performance tests at least once every two years thereafter, to determine compliance with the nitrogen oxide emission limitations specified in Condition V.R.1.l above for each boiler, using Methods 7, 7A, 7C, 7D, and 7E in 40 CFR Part 60, Appendix A. Only fuel oil shall be fired in the boilers to demonstrate compliance with the NO_X emission limitation of 0.10 lb/MMBtu. [§2108.02 and Installation Permit 0025-I003]

d. The permittee shall conduct an initial performance test and shall conduct subsequent performance tests at least once every two years thereafter, to determine compliance with the carbon monoxide emission limitations specified in Condition V.R.1.m above for each boiler, using Method 10 in 40 CFR Part 60, Appendix A. Only coke oven gas shall be fired in the boilers during the performance test to demonstrate compliance with the CO emission limitation of 0.075 lb/MMBtu. [§2108.02 and Installation Permit 0025-I003]

e. The permittee shall conduct an initial performance test and shall conduct subsequent performance tests at least once every two years thereafter, to determine compliance with the carbon monoxide emission limitations specified in Condition V.R.1.m above for each boiler, using Methods 10 in 40 CFR 60, Appendix A. Only fuel oil will be fired in the boilers to demonstrate compliance with the CO emission limitation of 0.092 lb/MMBtu. [§2108.02 and Installation Permit 0025-I003]

f. The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Site Level Condition IV.13 entitled "Emissions Testing." [§2103.12.h.1]

3. Monitoring Requirements:

a. The volumes of coke oven gas, natural gas and air combusted in Boilers B002 and B003 shall each be monitored and recorded on a continuous basis according to a Fuel Monitoring Plan submitted to the Department for written approval. Revisions to this Plan may be made with written Department approval. [§2103.12.i. and Installation Permit 0025-I003]

b. The permittee shall monitor the hourly quantity of gaseous fuel combusted in each boiler. [§60.48c(g) and §2102.04.b.6 and Installation Permit 0025-I003]

c. The permittee shall install, maintain, and operate a calorimeter to continuously measure and record the heating value of the gaseous fuel combusted in boilers B002 and B003. [§2103.12.i.1-i.3 and Installation Permit 0025-I003]

d. The permittee shall install maintain, and operate fuel flow monitors to monitor and record the hourly quantity of no. 2 fuel oil combusted in boilers B002 and B003. [§2103.12.i.1-i.3 and Installation Permit 0025-I003]

e. The permittee shall continuously monitor the sulfur compound concentration of the coke oven gas, expressed as hydrogen sulfide, in accordance with Conditions V.R.3.f through V.R.3.h below. [§2103.12.i.1-i.3 and Installation Permit 0025-I003]

f. The permittee shall continuously monitor the blend of treated coke oven gas from the Sulfiban unit, and treated acid gas from the Sulferox® unit downstream from the point where the desulfurized acid gas is introduced back into the desulfurized coke oven gas stream at a location identified as the "meter building." The following sulfur compounds shall be continuously monitored: H_2S, CS_2, and COS. The compound SO_2 shall be monitored by a quarterly grab sample in accordance with a protocol acceptable to the Department. The sum of the actual measurements of H_2S, CS_2 and COS shall be combined with 0.4 grains of SO2, expressed as equivalent grains of H_2S per 100 dry standard cubic feet of coke oven gas, and shall be considered the hourly concentration of sulfur compounds in the coke oven gas. [§2103.12.i.1-i.3; Installation Permit 0025-I003, Condition V.A.3.d; and Consent Order and Agreement, Condition VI.C, dated June 19, 2012]

g. The permittee shall calculate the daily average sulfur compounds based on a nominal 24-hour average. The data used for the calculation of the averages shall be the uninterrupted hours of CEM hourly data, with one hour per day being omitted for CEM calibrations. If CEM data is unavailable for reasons identified in Condition V.R.3.h below, the data acquired under paragraph

V.B.3.h shall be used to calculate the daily average sulfur emissions. [§2103.12.i.1and i.2 and Installation Permit 0025-I003]

h. In the event that the CEMS becomes inoperative or otherwise fails to provide certifiably accurate monitoring results for more than three (3) hours: [§2103.12.i.1-i.3 and Installation Permit 0025-I003]

1) The permittee shall utilize a laboratory based gas chromatograph to analyze coke oven gas samples to be collected at the meter building at approximately 8 a.m., 10 a.m., 12 p.m. and 2 p.m. until the CEMS returns to operation. The analyses shall be conducted by qualified personnel and shall be recorded. The analyses shall provide concentrations of H_2S, COS and CS_2 which shall be combined with the grains of SO_2 as determined in Condition V.R.3.f above and utilized in the calculation of the daily average sulfur emissions. The samples will be averaged to provide the sulfur compound concentration of the coke oven gas for the period during which the CEM is non-operational.

2) In the event that the laboratory based gas chromatograph becomes inoperative, or qualified personnel are not available to operate the chromatograph, the permittee shall analyze the samples required by Condition V.R.3.h.1) above using the Tutweiller procedure. The permittee shall analyze and report the H_2S concentration of the coke oven gas from this procedure. The permittee shall estimate the COS and CS_2 concentrations of the coke oven gas stream using the average results for each component as reported for the day immediately preceding the unavailability of the CEM. The permittee shall sum the H_2S concentrations with the average COS and CS_2 concentrations identified in this section and with the grains of SO_2 as determined in Condition V.R.3.f above.

3) In the event that the CEM is operating properly but the data processing system becomes inoperative for more than six (6) hours, the permittee shall record the hourly instantaneous CEM readings manually and use them in the average to compute the daily average sulfur emissions.

i. Compliance with the fuel oil sulfur limitations of Condition V.R.1.g above may be determined based on a certification obtained from the fuel supplier meeting the requirements of Condition V.R.4.b below. [§60.42c(h), § 60.46c(e) and Installation Permit 0025-I003]

j. The permittee shall calculate and record the hourly heat (MMBtu/hr) input to each boiler. The quantity of each fuel combusted in each boiler shall be determined from the fuel metering devices. When combusting fuel oil, the heat input shall be calculated from the quantity of fuel oil consumed and the higher heating value for fuel oil as provided by the fuel supplier. When combusting gaseous fuel, the heat input for each boiler shall be calculated from the quantity of gas consumed and the gas heating value as measured by the calorimeter. [§2103.12.i and Installation Permit 0025-I003]

4. Record Keeping Requirements:

a. The permittee shall record and maintain records of the type and amount of each fuel combusted during each day in Boilers B002 and B003. [§60.48c(g) and §2103.12.j and Installation Permit 0025-I003]

b. The permittee shall continuously record the average daily (midnight to midnight) concentration of

sulfur compounds, expressed as H_2S, monitored in Conditions V.R.3.f through V.R.3.h above, in the coke oven gas combusted in Boilers B002 and B003. [§2103.12.j. and Installation Permit 0025-I003]

c. The permittee shall record and maintain records of the hourly heat input to each boiler. [§2103.22.h. and Installation Permit 0025-I003]

d. Records of distillate fuel oil supplier certification shall include the following information: [§60.48c(f)(1) and Installation Permit 0025-I003]

1) The name of the oil supplier; and
2) A statement from the fuel oil supplier that the oil complies with the specifications required by Condition V.R.1.g above.

e. Records of monthly fuel oil consumption of each boiler shall be kept by the facility; the name of the fuel oil supplier and the specifications of fuel oil shall be kept to demonstrate compliance with all applicable requirements of this permit. [§60.48c and Installation Permit 0025-I003]

f. All records required under this permit shall be maintained at the facility for a period of five (5) years following the date of such record. [§60. 48c (I), §2103.12 & §2103.22 and Installation Permit 0025-I003]

5. Reporting Requirements:

a. The permittee shall submit quarterly reports to the Department. The initial quarterly report shall be postmarked by the 30th day of the third month following the completion of the initial performance test. Each subsequent report shall be postmarked by the 30th day following the end of the reporting period. [§60.48c(d); §2102.04.e and Installation Permit 0025-I003]

b. For each month of the reporting period, the report shall contain the total monthly amount of each fuel combusted and the maximum hourly heat input (MMBtu/hr) to each boiler. [§2103.12.j and Installation Permit 0025-I003]

c. The quarterly report shall also include the following information: [§60.48c(e); §2013.12.j and Installation Permit 0025-I003]

1) Calendar dates covered in the reporting period.
2) Daily average sulfur compound concentration monitored in Conditions V.R.3.f through V.R.3.h above. Identification of any times when emissions data have been excluded from the calculation of average emission rates; justification for excluding data; and a description of corrective actions taken if the data have been excluded for periods other than those during which coke oven gas or oil were not combusted in the steam generating unit.
3) Identification of whether sulfur compound concentration averages, have been derived from the continuous monitoring system or manual sampling methods.
4) If the continuous monitoring system is used, identification of any times when the sulfur compound concentration averages exceeded the full span of the monitoring system.
5) If the CEMS is used, description of any modifications to the CEMS that could effect the ability of the CEMS to comply with Performance Specification 2 (40 CFR Part 60 Appendix B).
6) If the CEMS is used, results of the daily CEMS drift tests and quarterly accuracy assessments

as required under 40 CFR Part 60, Appendix F, Procedure 1.

7) If records of fuel supplier certification are used to demonstrate compliance, records of fuel supplier certification as described in Condition V.R.4.d above shall be maintained. In addition to records of fuel supplier certification, the report shall include a certified statement signed by the responsible official that the records of fuel supplier certifications submitted represent all of the fuel oil combusted during the quarter.

d. The notifications and reporting required by 40 CFR Part 60 Subpart Dc shall be submitted to both the EPA and the Department.

6. Work Practice Standard:

a. Boilers B002 and B003 shall be: [§2102.04.b.6 and Installation Permit 0025-I003]

1) Operated in such a manner as not to cause air pollution;
2) Operated and maintained in a manner consistent with good operating and maintenance practices.
3) Operated and maintained in accordance with the manufacturer's specifications and the applicable terms and conditions of this permit.

7. Additional Requirements (§2102.04.b.6)

S. B004: Boilers No. 4

Facility ID:	Boiler No. 4 (B004)
Max. Design Rate/Units:	96.8 MMBtu/hr
Raw Material(s)/Fuel(s):	Coke oven gas and natural gas
Control Device(s):	Coke oven gas desulfurization fuel pretreatment, low-NO_X burners and flue gas recirculation for NO_X control

1. Restrictions

a. Only coke oven gas and natural gas shall be combusted in Boiler B004. [Installation Permit 0025-I004, Condition V.A.1.c; §2102.04.b.6]

b. The boiler heat input shall not exceed 96.8 MMBtu/hr based on the higher heating value of the fuel being combusted at any time. The heating value shall be determined by a calorimeter for coke oven gas and mixed gas. [Installation Permit 0025-I004, Condition V.A.1.e; §2102.04.b.6]

c. The permittee shall not operate, or allow to be operated, any source in such manner that unburned coke oven gas is emitted into the open air. In addition, the permittee shall not flare, mix, or combust coke oven gas, or allow such gas to be flared, mixed or combusted, unless the concentration of sulfur compounds, measured as a daily average of hydrogen sulfide, in such gas is less than or equal to 34 grains per hundred dry standard cubic feet of coke oven gas. The concentration of sulfur compounds shall include tail-gas sulfur, measured as hydrogen sulfide, emitted from sulfur removal equipment. [Installation Permit 0025-I004, Condition V.A.1.f; §2105.21.h.3.A]

d. Emissions of SO_2 shall not exceed 0.165 lb/MMBtu when combusting coke oven gas or 0.0006 lb/MMBtu when combusting natural gas. [Installation Permit 0025-I004, Condition V.A.1.g; §2102.04.b.6]

e. The SO_2 emission limits apply at all times, including periods of startup, shutdown, and malfunction of the boilers. [Installation Permit 0025-I004, Condition V.A.1.h; §60.42c(i)]

f. Emissions of filterable particulate matter shall not exceed 0.010 lb/MMBtu when combusting coke oven gas or 0.005 lb/MMBtu when combusting natural gas. [Installation Permit 0025-I004, Condition V.A.1.i; §2102.04.b.6]

g. Emissions of NO_X shall not exceed 0.090 lb/MMBtu when combusting coke oven gas or 0.040 lb/MMBtu when combusting natural gas. [Installation Permit 0025-I004, Condition V.A.1.k; §2102.04.b.6]

h. Emissions of CO shall not exceed 0.075 lb/MMBtu when combusting coke oven gas or 0.086 lb/MMBtu when combusting natural gas. [Installation Permit 0025-I004, Condition V.A.1.l; §2102.04.b.6]

i. Emissions of VOC shall not exceed 0.0076 lb/MMBtu when combusting coke oven gas or 0.0042 lb/MMBtu when combusting natural gas. [Installation Permit 0025-I004, Condition V.A.1.m; §2102.04.b.6]

j. The permittee shall not operate, or allow to be operated, Boiler B004 in such manner that the opacity of visible emissions, excluding uncombined water, is: [Installation Permit 0025-I004, Condition V.A.1.n; §2104.01.a]

1) equal to or exceeds an opacity of 20% for a period or periods aggregating more than three (3) minutes in any 60-minute period;
2) equal or exceed an opacity of 60% at any time.

k. Visible emissions resulting solely from the cold start of Boiler B004 are excluded from the opacity requirements of V.S.1.j above, if such a cold start has been reported as required by §2108.01.d. [Installation Permit 0025-I004, Condition V.A.1.o; §2104.01.b.3]

l. The total hourly heat input from all fuels combusted in Boilers B001, B002, B003 and B004 shall not exceed a maximum of 265.2 MMBtu/hour, at any time. The total heat input from all fuels combusted in Boilers B001, B002, B003 and B004 shall not exceed 2,323,152 MMBtu in any consecutive 12-month period. [Installation Permit 0025-I004, Condition V.A.1.p; §2102.04.b.6]

m. Emissions from Boiler B004 shall not exceed the following at any time (Installation Permit 0025-I004, Condition V.A.1.q; §2102.04.b.6):

POLLUTANT	Coke Oven Gas lb/hr	Natural Gas lb/hr	tons/yr
Particulate Matter, filterable	0.98	0.48	4.3
PM-10, filterable	0.98	0.48	4.3
Nitrogen Oxides	8.71	3.87	38.15
Sulfur Dioxide	15.97	0.06	69.95
Carbon Monoxide	7.26	8.32	36.44
Volatile Organic Compounds	0.74	0.41	3.22

[1] A year is defined as any 12 consecutive months.

2. Testing Requirements

a. The permittee shall conduct an initial performance test and shall conduct subsequent performance tests at least once every two years thereafter, to determine compliance with the nitrogen oxide emission limitations specified in V.S.1.g above, using Methods 7, 7A, 7C, 7D, or 7E in 40 CFR Part 60, Appendix A. Only coke oven gas shall be fired in Boiler B004 during the performance test to demonstrate compliance with the NO_X emission limitation of 0.09 lbs/MMBtu. [Installation Permit 0025-I004, Condition V.A.2.d; §2108.02]

b. The permittee shall conduct an initial performance test and shall conduct subsequent performance tests at least once every five years to determine compliance with the nitrogen oxide emission limitations specified in V.S.1.g above, using Methods 7, 7A, 7C, 7D, or 7E in 40 CFR Part 60, Appendix A. Only natural gas shall be fired in Boiler B004 to demonstrate compliance with the NO_X emission limitation of 0.04 lb/MMBtu. [Installation Permit 0025-I004, Condition V.A.2.e; §2108.02]

c. The permittee shall conduct an initial performance test and shall conduct subsequent performance tests at least once every two years thereafter, to determine compliance with the carbon monoxide emission limitations specified in Condition V.S.1.h above, using Method 10 in 40 CFR Part 60, Appendix A. Only coke oven gas shall be fired in Boiler B004 during the performance test to demonstrate compliance with the CO emission limitation of 0.075 lb/MMBtu. [Installation Permit 0025-I004, Condition V.A.2.f; §2108.02]

d. The permittee shall conduct an initial performance test and shall conduct subsequent performance tests at least once every five years to determine compliance with the carbon monoxide emission limitations specified in Condition V.S.1.h above, using Method 10 in 40 CFR Part 60, Appendix A. Only natural gas shall be fired in Boiler B004 during the performance test to demonstrate compliance with the CO emission limitation of 0.086 lb/MMBtu. [Installation Permit 0025-I004, Condition V.A.2.g; §2108.02]

e. Conducting performance tests every five years as specified in paragraphs V.S.2.b and V.S.2.d above will not be required if two years after the date of the initial performance test, the quantity of natural gas combusted in Boiler B004 does not exceed 50 million cubic feet per year in subsequent years. [Installation Permit 0025-I004, Condition V.A.2.h; §2102.04.b.6]

f. The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Article XXI §2108.02. [Installation Permit 0025-I004, Condition V.A.2.i; §2103.12.h.1]

3. Monitoring Requirements:

a. The hourly volumes of coke oven gas and natural gas combusted in Boiler B004 shall each be monitored and recorded on a continuous basis. [Installation Permit 0025-I004, Condition V.A.3.a; §60.48c (g) and §2103.12.i.]

b. The permittee shall calculate and record the hourly heat input (MMBtu/hour) to Boiler B004. The quantity of each fuel combusted in Boiler B004 shall be determined from the fuel metering devices. The mixed gas fuel heating value shall be calculated from the quantity of coke oven gas and natural gas and air consumed, and the mixed gas heating value as measured by the calorimeter. The higher heating value of the natural gas combusted, that is not part of the mixed gas, will be based on the average value as determined by the supplier. [Installation Permit 0025-I004, Condition V.A.3.b; §2103.12.i]

c. The permittee's Fuel Monitoring Plan for Boilers 1, 2 and 3 shall be revised to include the following additional provisions: [Installation Permit 0025-I004, Condition V.A.3.c; §2103.12.i]
   1) On an hourly basis, monitor and record the fuels combusted in Boiler B004, including the natural gas that is not part of the mixed gas;
   2) On an hourly basis, monitor and record the total heat input, as measured by the calorimeter, from the combustion of coke oven gas and mixed gas (natural gas and air and coke oven gas), combusted in Boiler 4;
   3) On an hourly basis, calculate the heat input from the combustion of natural gas that is not used as part of the mixed gas in Boiler 4. The higher heating value of this natural gas shall be based on the average value as determined by the fuel supplier.

d. The revised Fuel Monitoring Plan and any subsequent revisions to this Plan shall be submitted to the Department for written approval. [Installation Permit 0025-I004, Condition V.A.3.d;

§2103.12.i]

e. The permittee shall continuously monitor the sulfur compound concentration of the coke oven gas, expressed as hydrogen sulfide, in accordance with paragraphs V.S.3.f through V.S.3.h below. [Installation Permit 0025-I004, Condition V.A.3.e; §2103.12.i.1-i.3]

f. The permittee shall continuously monitor the blend of treated coke oven gas from the Sulfiban unit, and treated acid gas from the Sulferox® unit downstream from the point where the desulfurized acid gas is introduced back into the desulfurized coke oven gas stream at a location identified as the "meter building." The following sulfur compounds shall be continuously monitored: H_2S, CS_2, and COS. The compound SO_2 shall be monitored by a quarterly grab sample in accordance with a protocol acceptable to the Department. The sum of the actual measurements of H_2S, CS_2 and COS shall be combined with 0.4 grains of SO_2, expressed as equivalent grains of H_2S per 100 dry standard cubic feet of coke oven gas, and shall be considered the hourly concentration of sulfur compounds in the coke oven gas. [§2103.12.i.1-i.3; Installation Permit 0025-I004, Condition V.A.3.f; and Consent Order and Agreement, Condition VI.C, dated June 19, 2012]

g. The permittee shall calculate the daily average sulfur compounds based on a nominal 24-hour average. The data used for the calculation of the averages shall be the uninterrupted hours of CEM hourly data, with one hour per day being omitted for CEM calibrations. If CEM data is unavailable for reasons identified in paragraph V.S.3.h below, the data acquired under paragraph V.S.3.h below shall be used to calculate the daily average sulfur emissions. [Installation Permit 0025-I004, Condition V.A.3.g; §2103.12.i.1and i.2]

h. In the event that the CEMS becomes inoperative or otherwise fails to provide certifiably accurate monitoring results for more than three (3) hours: [Installation Permit 0025-I004, Condition V.A.3.h; §2103.12.i.1-i.3]

1) The permittee shall utilize a laboratory-based gas chromatograph to analyze coke oven gas samples to be collected at the meter building at approximately 8 a.m., 10 a.m., 12 p.m. and 2 p.m. until the CEMS returns to operation. The analyses shall be conducted by qualified personnel and shall be recorded. The analyses shall provide concentrations of H_2S, COS and CS_2 which shall be combined with the grains of SO_2 as determined in paragraph V.S.3.f above and utilized in the calculation of the daily average sulfur emissions. The samples will be averaged to provide the sulfur compound concentration of the coke oven gas for the period during which the CEM is non-operational.

2) In the event that the laboratory-based gas chromatograph becomes inoperative, or qualified personnel are not available to operate the chromatograph, the permittee shall analyze the samples required by V.S.3.h.1) above using the Tutweiller procedure. The permittee shall analyze and report the H_2S concentration of the coke oven gas from this procedure. The permittee shall estimate the COS and CS_2 concentrations of the coke oven gas stream using the average results for each component as reported for the day immediately preceding the unavailability of the CEM. The permittee shall sum the H_2S concentrations with the average COS and CS_2 concentrations identified in this section and with the grains of SO_2 as determined in paragraph V.E.3.b above.

3) In the event that the CEM is operating properly but the data processing system becomes inoperative for more than six (6) hours, the permittee shall record the hourly instantaneous

CEM readings manually and use them in the average to compute the daily average sulfur emissions.

4. Record Keeping Requirements:

a. The permittee shall record and maintain records of the type and amount of each fuel combusted during each day in Boiler B004. [Installation Permit 0025-I004, Condition V.A.4.a; §60.48c(g) and §2103.12.j]

b. The permittee shall record and maintain records of the hourly heat input from all fuels combusted in Boiler B004. [Installation Permit 0025-I004, Condition V.A.4.b; §60.48c(g) and §2103.12.j]

c. The permittee shall record and maintain records of the total hourly heat input from all fuels combusted in Boilers 1, 2, 3 and 4. [Installation Permit 0025-I004, Condition V.A.4.c; §2103.12.j]

d. The permittee shall continuously record the average daily (midnight to midnight) concentration of sulfur compounds, expressed as H_2S, monitored in V.S.3.f throughV.S.3.h above, in the coke oven gas combusted in Boiler B004. [Installation Permit 0025-I004, Condition V.A.4.d; §2103.12.j]

e. All records required under this permit shall be maintained at the facility for a period of five (5) years following the date of such record. [Installation Permit 0025-I004, Condition V.A.4.e; §60.48c(i), §2103.12 & §2103.22]

5. Reporting Requirements:

a. Reporting instances of non-compliance, does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.8, if appropriate. (Installation Permit 0025-I004, Condition V.A.5.a; §2102.04.b.4)

b. The permittee shall submit quarterly reports to the Department in accordance with the requirements in General Condition III.15. The initial quarterly report shall be postmarked by the 30th day of the third month following the completion of the initial performance test. (Installation Permit 0025-I004, Condition V.A.5.b; §60.48c(d) and §2102.04.e.)

c. For each month of the reporting period, the report shall contain the total monthly amount of each fuel combusted and the maximum hourly heat input (MMBtu/hr) to Boiler B004 as well as the maximum total heat input to Boilers 1, 2, 3 and 4. (Installation Permit 0025-I004, Condition V.A.5.c; §2103.12.j.)

d. The quarterly report shall also include the following information: (Installation Permit 0025-I004, Condition V.A.5.d; §60.48c(e); §2103.12.j)

1) Calendar dates covered in the reporting period.
2) Identification of any times when the total hourly heat input from all fuels combusted in Boilers 1, 2, 3 and 4 exceeds 265.2 MMBtu/hour.
3) Daily average sulfur compound concentration monitored in Condition V.S.3.e through V.S.3.g above.
4) Identification of any times when emissions data have been excluded from the calculation of

average emission rates; justification for excluding data; and a description of corrective actions taken if data have been excluded for periods other than those during which coke oven gas was not combusted in the steam generating unit.

5) Identification of whether sulfur compound concentration averages, have been derived from the continuous monitoring system or manual sampling methods.
6) If the continuous monitoring system is used, identification of any times when the sulfur compound concentration averages exceeded the full span of the monitoring system.
7) If the CEMS is used, description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 (40 CFR Part 60 Appendix B).
8) If the CEMS is used, results of the daily CEMS drift tests and quarterly accuracy assessments as required under 40 CFR Part 60, Appendix F, Procedure 1.

e. The notifications and reporting required by 40 CFR Part 60 Subpart Dc shall be submitted to both the EPA and the Department. (Installation Permit 0025-I004, Condition V.A.5.e)

6. Work Practice Standard:

a. Boiler B004 shall at all times be:

1) Operated and maintained in a manner consistent with good operating and maintenance practices;

2) Operated and maintained in accordance with the manufacturer's specifications and the applicable terms and conditions of this permit

T. B006: Boiler House Emergency Generator

Facility ID:	Boiler House Emergency Generator
Manufacturer/Model:	Cummins/QSK23-G7NR2
Max. Design Rate:	600 kW
Capacity:	8 MMBtu/hr
Primary Fuel:	No. 2 fuel oil; <0.0015% (15ppm) sulfur
Control Device(s):	None

1. Restrictions

a. The permittee shall use only diesel fuel that meets the following requirements in the emergency generator: [§2102.04.b.6; §60.4207(b); §80.510(b)]

1) The maximum sulfur content shall not exceed 15 ppm (0.0015%)

2) The Cetane index or aromatic content shall not exceed the following:

a) A minimum cetane index of 40; or

b) A maximum aromatic content of 35 volume percent.

b. The permittee shall not operate the generator for more than 500 hours, including operation for maintenance checks and readiness testing, in any 12-month period. Maintenance checks and readiness testing shall be limited to 100 hours per year. [§2102.04.b.6; §2105.03; §60.4211(f)]

c. Diesel fuel consumption shall be limited to 55.2 gallons/hour and 27,600 gallons in any twelve (12) consecutive months. [§2102.04.b.6; §2105.03]

d. Emissions from the emergency generator shall not exceed the limits in Table V-T-1 at any time: [§2102.04.b.6]

TABLE V-T-1: Emergency Generator Emission Limits

POLLUTANT	Short-Term (lb/hr)	Long-Term (tons/yr)[1]
Particulate Matter	0.40	**0.10**
Particulate Matter < 10 µm	0.40	**0.10**
Particulate Matter < 2.5 µm	0.40	**0.10**
Nitrogen Oxides (NO_X)	12.91	**3.23**
Sulfur Oxides (SO_X)	0.01	**0.003**
Carbon Monoxide (CO)	6.99	**1.75**
Volatile Organic Compounds (VOCs)	0.80	**0.20**

[1] A year is defined as any 12 consecutive months.

2. Testing Requirements

a. The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Article XXI §2108.02. (§2103.12.h.1)

3. Monitoring Requirements

a. The permittee shall install a non-resettable hour meter prior to startup of the emergency generator. [§2102.04.b.6; §60.4209(a)]

b. Compliance with the fuel oil sulfur limitations in condition V.T.1.a above shall be determined based on a certification obtained from the fuel supplier meeting the requirements of condition V.T.4.b below. [§2102.04.b.6; §2103.12.i]

4. Record Keeping Requirements

a. The permittee shall keep and maintain the following data for each generator: [§2102.04.b.6; §2103.12.j; §60.4214(b)]

1) Fuel shipment records (date and amount received), type of fuel consumed and suppliers' certification of sulfur content, and heating value;
2) Cold starts (date, time and duration of each occurrence);
3) Total operating hours (daily, monthly and 12-month) as recorded by the non-resettable hour meters required under condition V.T.3.a with reason for operation during that time;
4) Monthly fuel usage for the generator testing/operation process; and
5) Records of operation, maintenance, inspection, calibration and/or replacement of combustion equipment.

b. Records of diesel fuel certifications from fuel suppliers shall be maintained per shipment. Certifications shall include the name of the supplier and a statement from the supplier that the fuel complies with ASTM D975 "Standard Specifications for Diesel Fuel Oils". [§2103.12.j]

c. The permittee shall record all instances of non-compliance with the conditions of this permit upon occurrence along with corrective action taken to restore compliance. [§2103.12.j]

d. All records shall be retained by the facility for at least five (5) years. These records shall be made available to the Department upon request for inspection and/or copying. [§2103.12.j.2]

5. Reporting Requirements

a. The permittee shall report the following information to the Department semi-annually in accordance with General Condition III.15. The reports shall contain all required information for the time period of the report: [§2103.12.k]

1) Monthly and 12-month data required to be recorded by Condition V.T.4.a above;
2) Cold start information;
3) Non-compliance information required to be recorded by Condition V.T.4.c above; and

4) Fuel oil certifications required by condition V.T.4.b above and a statement from the permittee that the record of fuel supplier certifications represents all the fuel oil used during the reporting period.

b. Until terminated by written notice from the Department, the requirement for the permittee to report cold starts 24 hours in advance in accordance with Site Level Condition IV.9 and §2108.01.d is waived and the permittee may report all cold stars in accordance with Condition V.A.5.a above. [§2103.12.k]

c. Reporting instances of non-compliance does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.7 if appropriate. [§2103.12.k]

6. Work Practice Standard

The generator shall be properly operated and maintained according to manufacturer's specifications. The manufacturer's operation and maintenance manuals shall be kept on site at all times. [§2102.04.b.6; §2105.03]

7. Additional Requirements

None except as provided elsewhere.

U. B006: Battery By-Products Emergency Generator

Facility ID: Battery By-Products Emergency Generator
Manufacturer/Model: Cummins/QSK23-G3
Max. Design Rate: 450kW
Capacity: 5.3 MMBtu/hr
Primary Fuel: No. 2 fuel oil; <0.0015% (15ppm) sulfur
Control Device(s): None

1. Restrictions

a. The permittee shall combust only diesel fuel with maximum allowable sulfur content of 15 ppm (0.0015%), by weight, in the emergency generator. [§2102.04.b.6; §2105.03]

b. The permittee shall not operate the generator for more than 500 hours, including operation for maintenance checks and readiness testing, in any 12-month period. [§2102.04.b.6; §2105.03]

c. Diesel fuel consumption shall be limited to 37.7 gallons/hour and 18,850 gallons in any twelve (12) consecutive months. [§2102.04.b.6; §2105.03]

d. The generator shall be fired only during emergency conditions and for a maximum of 100 hours per year each for maintenance checks and readiness testing. [§2102.04.b.6; §2105.03]

e. Emissions from the emergency generator shall not exceed the limits in Table V-U-1 at any time: [§2102.04.b.6]

TABLE V-U -1: Emergency Generator Emission Limits

POLLUTANT	Short-Term (lb/hr)	Long-Term (tons/yr)[1]
Particulate Matter	0.40	**0.11**
Particulate Matter < 10 µm	0.39	**0.10**
Particulate Matter < 2.5 µm	0.34	**0.08**
Nitrogen Oxides (NO_X)	19.33	**4.38**
Sulfur Oxides (SO_X)	0.01	**0.002**
Carbon Monoxide (CO)	5.13	**1.18**
Volatile Organic Compounds (VOCs)	0.54	**0.14**

[1] A year is defined as any 12 consecutive months.

2. Testing Requirements

The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Article XXI §2108.02. [§2103.12.h.1]

3. Monitoring Requirements

a. The permittee shall install a non-resettable hour meter prior to startup of the emergency generator. [§2102.04.b.6;§2103.12.i]

b. Compliance with the fuel oil sulfur limitations in condition V.U.1.a above shall be determined based on a certification obtained from the fuel supplier meeting the requirements of condition V.U.4.b below. [§2102.04.b.6; §2103.12.i]

4. Record Keeping Requirements

a. The permittee shall keep and maintain the following data for each generator: [§2103.12.j]

1) Fuel shipment records (date and amount received), type of fuel consumed and suppliers' certification of sulfur content, and heating value;
2) Cold starts (date, time and duration of each occurrence);
3) Total operating hours (daily, monthly and 12-month); and
4) Records of operation, maintenance, inspection, calibration and/or replacement of combustion equipment.

b. Records of diesel fuel certifications from fuel suppliers shall be maintained per shipment. Certifications shall include the name of the supplier and a statement from the supplier that the fuel complies with ASTM D975 "Standard Specifications for Diesel Fuel Oils". [§2103.12.j]

c. The permittee shall record all instances of non-compliance with the conditions of this permit upon occurrence along with corrective action taken to restore compliance. [§2103.12.j]

d. All records shall be retained by the facility for at least five (5) years. These records shall be made available to the Department upon request for inspection and/or copying. [§2103.12.j.2]

5. Reporting Requirements

a. The permittee shall report the following information to the Department semi-annually in accordance with General Condition III.15. The reports shall contain all required information for the time period of the report: [§2103.12.k]

1) Monthly and 12-month data required to be recorded by Condition V.U.4.a above;
2) Cold start information;
3) Non-compliance information required to be recorded by Condition V.U.4.a above; and
4) Fuel oil certifications required by condition V.U.4.b above and a statement from the permittee that the record of fuel supplier certifications represents all the fuel oil used during the reporting period.

b. Until terminated by written notice from the Department, the requirement for the permittee to report cold starts 24 hours in advance in accordance with Site Level Condition IV.9 and §2108.01.d is waived and the permittee may report all cold stars in accordance with Condition V.U.5.a above. [§2103.12.k]

c. Reporting instances of non-compliance does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.7 if appropriate. [§2103.12.k]

6. Work Practice Standard

None except as provided elsewhere.

7. Additional Requirements

None except as provided elsewhere.

VI. ALTERNATIVE OPERATING SCENARIOS

There are no alternate operating scenarios for this facility.

VII. EMISSIONS LIMITATIONS SUMMARY

[This section is provided for informational purposes only and is not intended to be an applicable requirement.]

The emission limitations for the Shenango Incorporated Neville Island Coke Plant are summarized in the following table:

TABLE VII-1
Emission Limitations Summary

POLLUTANT	ANNUAL EMISSION LIMIT (tons/year)*
Particulate Matter	197.81
PM10	190.11
Nitrogen Oxides	1,074.83
Carbon Monoxide	619.05
Sulfur Oxides	518.58
Volatile Organic Compounds	94.21
Benzene	8.43
POM	0.85
Naphthalene	0.71
Phenol	1.14
Styrene	0.02
Toluene	0.90
Xylene	0.33

* A year is defined as any consecutive 12-month period.