

cc: Central Office  
Wilkes-Barre Regional Office  
Bethlehem District Office

- (3) This Operating Permit is issued for the coke and coal chemical production sources listed in Attachment I.
- (4) This Operating Permit supersedes and consolidates the Operating Permit Nos. 48-302-053, 48-302-093A, 48-305-003A and 48-319-006.
- (5) The following NO<sub>x</sub> emissions shall apply:
  - (a) Battery "A" combustion stack - 0.68 lb/MMBTU heat input (30 day rolling average)
  - (b) Battery "2A" combustion stack - 0.24 lb/MMBTU heat input (30 day rolling average)
  - (c) Desulfurizer - 4.25 TPY
  - (d) Coke bleeders (operations) - 0.85 tons per day
  - (e) Coke Plant Boilerhouse (Boiler Nos. 1, 2, 3 and 4) - 0.25 lb/MMBTU heat input (daily average)
- (6) Continuous emission monitoring requirements are as follows:
  - (a) Continuous emission monitor No. 1009310 (Battery "A" combustion stack) for nitrogen oxides shall be operated and maintained in accordance with the Department's "Continuous Source Monitoring Manual" (Revision No. 5 - March, 1993).
  - (b) Continuous monitoring shall be conducted in accordance with 25 PA Code Chapter 139 and be approved by the Department.

(7) Testing requirements are as follows:

- (a) Source tests for  $\text{NO}_x$  for the coke plant boilerhouse and for Battery "2A" (each of underfire stacks 2 and 3) shall be conducted in accordance with 25 PA Code Chapter 139 as per the Department's source testing procedures described in the latest Source Testing Manual or source testing procedures approved by the Department prior to testing. Compliance shall be based on the average of these consecutive source tests. Source tests are to be conducted on an annual basis.
- (b) At least sixty (60) days prior to the tests, pre-test protocol shall be submitted to the Department for approval.
- (c) Within sixty (60) days of the completion of the tests, two (2) copies of the complete test reports, including all operating conditions shall be submitted to the Department for approval.

(8) Battery "A" and "2A" Underfire

- (a)  $\text{NO}_x$  RACT shall be the operation and maintenance of low excess air technology, by minimizing fuel use and maintaining the best air-to-fuel ratio that satisfies the process.
- (b) The company shall maintain records in accordance with the recordkeeping requirements of 25 PA Code Section 129.95 and shall include as a minimum the following:
  - 1. Data which clearly demonstrates that the emission limit in Conditions (5)(a) and (5)(b) is met.
  - 2. All CEM reports for Battery "A" combustion stack shall be submitted to the Department within thirty (30) days after each quarter but no later than the time frame established in the Department's latest Continuous Source Manual. The Department reserves the right to require the report submissions in floppy disks with a format acceptable to the Department.
- (c) All records shall be maintained for at least two years and shall be made available to the Department on request.

(9) Desulfurizer

- (a) NO<sub>x</sub> RACT shall be the operation and maintenance of the source according to the manufacturers specifications.
- (b) The minimum daily amount of coke oven gas entering the coke oven gas desulfurizer unit shall not be less than 22,000,000 SCFD.
- (c) The maximum daily amount of coke oven gas entering the coke oven gas desulfurizer unit shall not exceed 70,000,000 SCFD.
- (d) The company shall record the daily amount of sulfur recovered by the sulfur recovery plant. These records shall be maintained for a period of two years and shall be made available to the Department upon request.
- (e) The company shall record the hydrogen sulfide and the sulfur dioxide concentrations of the tail gas exiting the sulfur recovery plant. These records shall be maintained for a period of two years and shall be made available to the Department upon request.
- (f) The company shall record the daily amount of coke oven gas produced by the coke oven batteries. Those records shall be maintained for a period of two years and shall be made available to the Department upon request.
- (g) Within fourteen (14) days of the completion of the annual desulfurizer plant outage for boiler inspection and plant maintenance, the company shall submit a written notification of the Department giving the details of the maintenance work performed on the plant, and the dates of the outage.
- (h) The company shall maintain records in accordance with the recordkeeping requirements of 25 PA Code Section 129.95 and shall include as a minimum the following:
  - 1. Data which clearly demonstrates that the emission limit in Condition (5)(c) is met.
  - 2. All records shall be maintained for a period of at least two years and shall be made available to the Department on request.

(10) Coke Bleeders

- (a) NO<sub>x</sub> RACT shall be the operation and maintenance of the sources according to current operating practice.
- (b) The company shall maintain records in accordance with the recordkeeping requirements of 25 PA Code 129.95 and shall include as a minimum the following:
  - 1. Data which clearly demonstrates that the emission limit in Condition (5)(d) is met.
  - 2. All records shall be maintained for a period of at least two years and shall be made available to the Department on request.

(11) Coke Plant Boilerhouse

- (a) Boiler Nos. 1, 2 and 3 can be fired by a combination of tar derivatives, used oil and No. 6 fuel oil; a combination of tar and grease derived liquid fuel; and a combination of desulfurized coke oven gas and natural gas.
- (b) Boiler No. 4 can be fired by No. 6 fuel oil or a combination of desulfurized coke oven gas and natural gas. The firing of alternate fuels (tar derivatives and used oil) is prohibited unless authorized by the Department at a future date.
- (c) NO<sub>x</sub> RACT shall be the operation and maintenance of the boilers according to manufacturers specifications. In addition, an annual tune-up of each boiler's combustion process shall be performed.
- (d) ~~The sulfur content of the No. 6 oil fired in boiler Nos. 1, 2 and 3 shall not, at any time, exceed 2.0% (by weight). The sulfur content of the No. 6 oil fired in boiler No. 4 shall not, at any time, exceed 1.0% (by weight). No. 6 oil having a sulfur content exceeding 1.0% but less than 2.0% is prohibited from being fired in boiler No. 4 unless authorized by the Department at a future date.~~
- (e) ~~No used oil shall be accepted for use as a fuel without first being screened for the constituents of properties listed in Condition (11)(f) and a copy of the analysis is available demonstrating that none of the levels are exceeded. The company shall maintain records of the analysis and consumption of waste fuel by the source for a period of not less than two (2) years. These records shall be made available to the Department on request.~~

- (f) ~~The used oil to be mixed with virgin #6 fuel oil shall not exceed the following limitations:~~

<u>Constituent/Property</u>	<u>Limitations Level</u>	<u>Analytical Technique</u>
(a) <del>Arsenic</del>	<del>5 ppm</del>	<del>Atomic Absorption</del>
(b) <del>Cadmium</del>	<del>2 ppm</del>	<del>Atomic Absorption</del>
(c) <del>Chromium</del>	<del>10 ppm</del>	<del>Atomic Absorption</del>
(d) <del>Lead</del>	<del>100 ppm</del>	<del>Atomic Absorption</del>
(e) <del>PCB</del>	<del>10 ppm</del>	<del>H2SO4 Extraction/GC with Electron Capture</del>
(f) <del>TX</del>	<del>1000 ppm</del>	<del>ASTM D-808-81</del>

- (g) The fuel may not contain detectable levels of pesticides and/or herbicides.
- (h) The company shall take samples of the fuel as being supplied to the burners on a quarterly basis. These samples shall be analyzed for the constituents and properties listed in Condition (11)(f). The company shall maintain records of the analysis and consumption of fuel for a period of not less than two (2) years.
- (i) An annual report is to be submitted to the Regional Air Pollution Control Manager containing quarterly consumption data and copies of analyses required in Conditions (11)(e) and (11)(h). The report for the previous calendar year is due no later than March 15 each year.
- (j) The company shall make provisions for personnel of the Department to take samples of the waste derived liquid fuel and/or fuel mixture at any time.
- (k) The operation of the aforementioned sources shall not at any time result in the emission of visible air contaminants in excess of the limitations specified in 25 PA Code Section 123.41, particulate matter emissions in excess of limitations specified in 25 PA Code Section 123.11 or emissions in excess of the limitations specified in 25 PA Code Section 123.23.
- (l) The company shall maintain records in accordance with the recordkeeping requirements of 25 PA Code Section 129.95 and shall include as a minimum the following:
1. Data which clearly demonstrates that the emission limit in Condition (5)(e) is met.
  2. All records shall be maintained for a period of at least two years and shall be available to the Department on request.



(12) Coal Chemical Process

- (a) The coal chemical process consists of sources and associated gas blanketing systems identified in Attachment II of this Operating Permit.
- (b) The coal chemical process sources that are subject to Subpart L of the National Emission Standards for Hazardous Air Pollutants shall comply with all applicable requirements of this Subpart. 40 CFR §61.04 requires submission of copies of all requests, reports, applications, submittals and other communications to both EPA and the Department. The EPA copies shall be forwarded to:

Director  
Air, Toxics and Radiation Division  
U.S. EPA, Region III  
841 Chestnut Street  
Philadelphia, PA 19107

- (c) The company shall maintain records in accordance with the recordkeeping requirements of 25 PA Code Section 129.95 and shall include as a minimum the following:
  - 1. Data as required by Subpart L of the National Emission Standards for Hazardous Air Pollutants.
  - 2. All records shall be maintained for at least two years and shall be made available to the Department on request.
- (13) VOC RACT for in-plant painting and the compressed air system shall be the operation and maintenance of the sources according to manufacturers specifications.
- (14) The company shall notify the Department within one hour of becoming aware of any malfunction(s) of the sources or associated air pollution control equipment which results in, or may possibly be resulting in, the emission of air contaminants in excess of the limitations specified in applicable Department Rules or Regulations. In addition to said telephone notice, written confirmation shall be submitted to the Department within five (5) work days which shall include a description on the known or suspected cause of the malfunction(s), correction action(s) completed and measures proposed by Bethlehem to prevent similar malfunctions in the future.

- (15) Any notification required to be given by Bethlehem as a result of any condition herein shall be deemed to have been properly given if made by telephone during normal working hours between 8:00 ~~a.m.~~ and 4:00 p.m. Monday through Friday excluding state holidays to the Bethlehem District Office, Bureau of Air Quality Control (610) 861-2070. If such notice is required to be given at any other time, or if there is no answer at the above number, such notice by telephone shall be given prior to 9:00 a.m. on the next day of State business.
- (16) Nothing contained in this permit shall be construed to prevent or limit the application of the provisions of the Air Pollution Control Act, as amended, and 25 PA Code Chapter 137 which relate to air pollution episodes.
- (17) The expiration date shown on this Operating Permit is for state purposes. For Federal Enforcement purposes the Operating Permit shall remain in effect as part of the State Implementation Plan (SIP) until replaced pursuant to 40 CFR 51.4 and approved by the U.S. Environmental Protection Agency (EPA). The Operating Permit shall become enforceable by the U.S. EPA upon its approval of the above as a revision to the SIP.
- (18) This Operating Permit is valid for a limited period of time and may be renewed before its expiration date. Requests for an Operating Permit Renewal must be in writing and must be accompanied by a permit fee in the amount of (five hundred dollars) \$500.00 (\$250.00 application processing fee and \$250.00 annual administration fee). The request should be made on an Interim Application for Renewal of a Permit to Operate form and must be received by the Department along with a completed Compliance History form no later than January 31, 1999.

An annual Operating Permit administration fee of two hundred fifty dollars (\$250.00) is also due no later than the anniversary date of this Operating Permit. The administration fee is to be submitted with one of the transmittal forms (attached).



Attachment I

Coke and Coal Chemical Production

Cokemaking - Battery "A" Underfire  
Cokemaking - Battery "2A" Underfire  
Cokemaking Desulfurizer  
Operations Cokemaking Bleeders (2)  
Emergency Cokemaking Bleeder Flares (numerous)  
Coke Plant Boiler House - No. 1 Boiler  
Coke Plant Boiler House - No. 2 Boiler  
Coke Plant Boiler House - No. 3 Boiler  
Coke Plant Boiler House - No. 4 Boiler  
Coal Chemical Process  
Service and Heating Torches  
In-Plant Painting  
Compressed Air System

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ATTACHMENT II

VESSEL/TANK LIST

<u>Vessel/Tank No.</u>	<u>Description</u>	<u>Gas Blanketing System No.</u>
201-1	Mixer/Settler Feed Tank #1	GB1
201-2	Mixer/Settler Feed Tank #2	GB1
202-1	Final Cooler Mixer/Settler #1	GB1
202-2	Final Cooler Mixer/Settler #2	GB1
204	Lean Tar Feed Tank	GB4
205	Enriched Tar Tank	GB4
301	Tar Transfer Tank	GB2
306-1	Flushing Liquor Decanter #1	GB2
306-2	Flushing Liquor Decanter #2	GB2
307	Flushing Liquor Collecting Tank	GB2
310	Tar Decanter Sump Tank	GB2
311	Weak Ammonia Liquor Tank	GB2
312	Limed WAL Holding Tank	GB2
313	Limed WAL Clarifier	GB2
314	Prelimer Reaction Tank	GB2
315	Prelimer Reaction Tank	GB2
401-1	Wash Oil Decanter #1	GB3
401-2	Wash Oil Decanter #2	GB3
402-1	Light Oil Reclaim Separator	GB3
402-2	Primary Oil Reclaim Separator	GB3
403	Primary Oil Separator	GB3
404	Secondary Oil Separator	GB3
406-1	Wash Oil Collecting Tank #1	GB3
406-2	Wash Oil Collecting Tank #2	GB3
406-3	Wash Oil Collecting Tank #3	GB3
406-4	Wash Oil Collecting Tank #4	GB3
408	Light Oil Storage Tank	GB4
409	Light Oil Storage Tank	GB4
410-1	Secondary Oil Condenser #1	GB3
410-2	Secondary Oil Condenser #2	GB3
412-1	Intermediate Oil Separator #1	GB3
412-2	Intermediate Oil Separator #2	GB3
413	Wash Oil Decanter Condensate and Wash Oil Separation Sump Tank	GB3
411	Light Oil Storage Area Process Condensate Sump	GB4
504	Tar Storage Tank	GB4
505	Tar Storage Tank	GB4
508	Wash Oil Circulation Tank	GB4
203	Circulating Liquor Settling Tank (Note: This tank is in a closed system tied to Mixer/Settler so that gas blanketing is not directly applied.)	
	Light Oil Railroad Carloading Station	GB4
207*	Mixing/Settler Area Process Condensation Sump	

\* Rather than gas blanketing this condensate sump, it may be pressure controlled so that venting will only occur during intermittent addition/withdrawal of condensate from process vessels.