

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
FIELD OPERATIONS - BUREAU OF AIR QUALITY

EIA

OPERATING PERMIT

In accordance with provisions of the Air Pollution Control Act, the act of January 8, 1960, P.L. 2119, as amended, and after due consideration of an application received under Chapter 127 of the Rules and Regulations of the Department of Environmental Protection, the Department hereby issues this permit for the operation of the air contamination source(s) described below:

Permit No.	<u>OP-15-0010</u>	Source(s)	<u>Facility NOx and VOC RACT</u>
Owner	<u>Lukens Steel Company</u>	Air	<u>As Described Herein</u>
Address	<u>50 South First Avenue</u>	Cleaning	<u></u>
	<u>Coatesville, PA 19320-091</u>	Device	<u></u>
Attention	<u>Mr. James H. O'Brien</u>	Location	<u>City of Coatesville</u>
	<u>Environmental Engineer</u>		<u>Chester County</u>



This permit is subject to the following conditions:

1. That the source(s) and any associated air cleaning devices are to be:
  - a. operated in such a manner as not to cause air pollution;
  - b. in compliance with the specifications and conditions of all the applicable plan approvals issued;
  - c. operated and maintained in a manner consistent with good operating and maintenance practices.
2. This permit is valid only for the specific equipment, location and owner named above.

(SEE ADDITIONAL CONDITIONS ATTACHED)

Failure to comply with the conditions placed on this permit is a violation of Section 127.444. Violation of this or any other provision of Article III of the Rules and Regulations of the Department of Environmental Protection will result in suspension or revocation of this permit and/or prosecution under Section 9 of the Air Pollution Control Act.

Issued 5/6/1999

Francine Carlini  
Regional Manager  
Air Quality

Expires 5/6/2004

cc: Division of Permits, RCSOB  
Administration  
SEFO  
Re (GC38)49-13

**OPERATING PERMIT CONDITIONS**  
**PERMIT NO. OP-15-0010**  
**LUKENS STEEL COMPANY**

**CONDITIONS (continued):**

3. This Operating Permit incorporates Reasonably Available Control Technology (RACT) determinations as required by Title I provisions of the Clean Air Act Amendments and 25 Pa. Code Sections 129.91 through 129.95 for:
- Four (4) 27.3 MMBtu/hr heat input Brandy BH-B&W Boilers
  - Two (2) Electric Arc Furnaces identified as /C/ and /D/
  - Nine (9) Batch Heat Treating Furnaces with rated heat input between 20 to 50 MMBtu/hr.
  - One 18 MMBtu/hr Batch Heat Treating Furnace
  - 90 MMBtu/hr heat input Drever Furnace
  - Two (2) NAB Furnaces identified as 145' and 200' with rated heat input of 55 and 97 MMBtu/hr, respectively.
  - Eight (8) 15 MMBtu/hr Soaking Pits
  - Fifteen (15) 30 MMBtu/hr Soaking Pits
  - Steel Plate Roll Painting
  - Parts Degreasers > 10 Sq. Ft
  - Parts Degreasers < 10 Sq. Ft
  - 62.3 MMBtu/hr EMS Cleaver-Brooks Boiler
  - Following twelve (12) small boilers with rated heat input less than 20 MMBtu/hr each:
    - 9.9 MMBtu/hr Nickel Clad No. 2 Boiler
    - Two (2) ARC Bldg. Boilers each rated at 6.28 MMBtu/hr
    - 1.65 MMBtu/hr Test Lab Boiler
    - 1.37 MMBtu/hr Corporate Office Boiler
    - Two (2) Lukens Weld Boilers rated at 0.5 and 0.42 MMBtu/hr
    - 5.23 MMBtu/hr Lukens Weld No. 2 Boiler
    - Two (2) West Side Boilers each rated at 1 MMBtu/hr
    - 0.75 MMBtu/hr By-Products No. 1 Boiler
    - 0.3 MMBtu/hr Natural Gas Boiler
  - Zip Line Operation
  - Plate Marking Operations
  - Following seventeen (17) small Heaters and Pre-Heaters with rated heat input less than 20 MMBtu/hr:
    - Five (5) Clad Assembly Bldg. Pre-heaters, each rated at 3.8 MMBtu/hr
    - Tundish Heater rated at less than 1 MMBtu/hr
    - Small Space Heater rated at less than 1 MMBtu/hr
    - Two (2) ACA Pre-Heaters rated at 6.65 and 4.75 MMBtu/hr
    - 5.7 MMBtu/hr ICA-Ingot Pre-heater
    - Hot water heater rated at less than 1 MMBtu/hr

**OPERATING PERMIT CONDITIONS**  
**PERMIT NO. OP-15-0010**  
**LUKENS STEEL COMPANY**

**CONDITIONS (continued):**

- 7.6 MMBtu/hr F.C.P. Slab Pre-heater
  - 140" Mill Office heater rated at less than 1 MMBtu/hr
  - Four (4) EMS Pre-heaters each rated at 10 MMBtu/hr
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- 140" Mill Sauder Furnace
  - Four (4) Emergency Generators each rated at 1000 kW
  - 10 MMBtu/hr EMS Dryer
  - Three (3) Central Main Natural Gas-fired Electric Generators
  - 6 MMBtu/hr Bickley Furnace
  - Miscellaneous Process and Gas Use each rated at less than 20 MMBtu/hr
  - Miscellaneous VOC sources (cleaning, lubrication etc.)
  - Caster Spray Chamber
  - Fugitive NG Lines
  - 30 kW Natural Gas-fired Emergency Generator
  - Four (4) Emergency Diesel Generators (76 kW, 50 kW, 187 kW, 250 kW)
  - Emergency Propane Generator (8 kW)
  - Emergency Diesel Pump (1200 hp)
  - Six (6) Emergency Natural Gas-fired pumps rated at 250 BHP each
  - Two(2) Emergency Natural Gas-fired pumps rated at 20 BHP each
  - Three (3) Emergency Natural Gas-fired pumps rated at 3 BHP each
  - 0.3 MMBtu/hr Natural Gas-fired boiler
  - 1.5 MMBtu/hr Propane Vaporizer
  - Seven (7) greater than 2,000 gallons capacity above ground storage tanks
  - Miscellaneous less than 2,000 gallons capacity above ground storage tanks
  - One 12,000 gallon underground storage tank.
4. This Operating Permit supersedes Operating Permit No. 15-307-020B with respect to D and C Electric Arc Furnaces, and Permit No. 15-302-082 with respect to 62.3 MMBtu/hr heat input Cleaver-Brooks EMS Boiler for the incorporation of Reasonably Available Control Technology (RACT) requirements of 25 Pa. Code Sections 129.91-95.
5. The expiration date shown on this Operating Permit is for State purposes. For Federal Enforcement purposes the RACT portion of this Operating Permit shall remain in effect as part of the State Implementation Plan (SIP) until replaced pursuant to 40 CFR 51 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.
6. As per 25 Pa. Code Section 129.93 (c)(1), all units with a rated heat input of less than 20 MMBtu/hr, as described in Condition 3 herein, shall be maintained and operated in accordance with manufacturers' specifications as well as in accordance with good air pollution control practices.

OPERATING PERMIT CONDITIONS  
PERMIT NO. OP-15-0010  
LUKENS STEEL COMPANY

**CONDITIONS (continued):**

7. The potential to emit volatile organic compounds from each of the following sources shall never exceed 3 pounds per hour, 15 pounds per day or 2.7 tons per year. Should any of these limitations ever be exceeded for any of the sources listed below, a detailed RACT analysis which meets the criteria specified in 25 Pa. Code Section 129.92 must be submitted to the Department for each source contained in the respective source category:
- Four (4) 27.3 MMBtu/hr heat input Brandy BH-B&W Boilers
  - Ten (10) Batch Heat Treating Furnaces
  - 90 MMBtu/hr heat input Drever Furnaces
  - Two (2) NAB Furnaces with rated heat inputs of 55 and 97 MMBtu/hr, respectively.
  - Eight (8) 15 MMBtu/hr Soaking Pits
  - Fifteen (15) 30 MMBtu/hr Soaking Pits
  - 62.3 MMBtu/hr EMS Cleaver-Brooks Boiler
  - Twelve (12) small boilers with rated heat input less than 20 MMBtu/hr
  - Zip Line Operation
  - Seventeen (17) small Heaters and Pre-Heaters with rated heat input less than 20 MMBtu/hr
  - 140" Mill Sauder Furnace
  - Four (4) Emergency Generators rated at 1000 kW each
  - 10 MMBtu/hr EMS Dryer
  - Three (3) Central Main Natural Gas-fired Electric Generators
  - 6 MMBtu/hr Bickley Furnace
  - Miscellaneous VOC sources (cleaning, lubrication etc.)
  - 30 kW Natural Gas-fired Emergency Generator
  - Four (4) Emergency Diesel Generators (76 kW, 50 kW, 187 kW, 250 kW)
  - Emergency Propane Generator (8 kW)
  - Emergency Diesel Pump (1200 hp)
  - Six (6) Emergency Natural Gas-fired pumps rated at 250 BHP each
  - Two(2) Emergency Natural Gas-fired pumps rated at 20 BHP each
  - Three (3) Emergency Natural Gas-fired pumps rated at 3 BHP each
  - 0.3 MMBtu/hr Natural Gas-fired boiler
  - 1.5 MMBtu/hr Propane Vaporizer
  - Miscellaneous less than 2,000 gallons capacity above ground storage tanks
8. Pursuant to presumptive RACT requirements of 25 Pa. Code § 129.93 (b)(2), four (4) Brandy BH-B&W boilers shall undergo annual tune-ups on the combustion process. The first such tune-up for each of these boilers shall be accomplished by the end of calendar year 1999, with subsequent tune-ups to be performed on or about the same date(s) each year thereafter.

**OPERATING PERMIT CONDITIONS  
 PERMIT NO. OP-15-0010  
 LUKENS STEEL COMPANY**

**CONDITIONS (continued):**

9. Pursuant to presumptive RACT requirements of 25 Pa. Code § 129.93 (c)(5), emergency generators and pumps described in Condition No. 3 herein shall not operate more than 500 hours in any consecutive 12-month period. Additionally, all emergency generators and pumps shall be maintained and operated in accordance with manufacturers' specifications as well as in accordance with good air pollution control practices.
10. Pursuant to the VOC RACT requirements established in 25 Pa. Code §§ 129.91 - 129.95, the sources identified in Condition No. 3 shall be maintained and operated in accordance with manufacturers' specifications as well as in accordance with good air pollution control practices.
11. The VOC emissions from the steel plate roll painting sources shall comply with 25 Pa. Code § 129.52 requirements.
12. The VOC emissions from Parts Degreasers, which have an opening greater than ten (10) square feet, shall comply with the 25 Pa. Code § 129.63 requirements.
13. The VOC emissions from the 12,000 gallon underground storage tank identified in Condition 3 herein shall comply with 25 Pa. Code § 129.61 and 25 Pa. Code § 129.62(a) and (b) requirements.
14. The VOC emissions from seven above ground storage tanks with capacity of greater than 2,000 gallons shall comply with 25 Pa. Code § 129.57 requirements.
15. Lukens shall not exceed the fuel usage from the following source groups as follows:

<u>Group Name</u>	<u>Maximum Fuel Consumption Rates in Million Cubic Feet per Year (12-month rolling basis)</u>
Brandywine Boiler House (Four 27.3 MMBtu/hr Brandy Boilers)	959.59
Green Annealing Building (Nine Batch Heat Treating Furnaces Source Nos. 7, 8, 9, 10, 11, 12, 14, 15, and 16)	2,688.88
Conditioning (ICA) Building (One Batch Heat Treating Furnace Source No. 13)	350.40
Continuous Finishing Bldg. (Dreyer Furnace, 90 MMBtu/hr)	788.40

**OPERATING PERMIT CONDITIONS  
PERMIT NO. OP-15-0010  
LUKENS STEEL COMPANY**

**CONDITIONS (continued):**

<u>Group Name</u>	<u>Maximum Fuel Consumption Rates in Million Cubic Feet per Year (12-month rolling basis)</u>
Naval Armament Building (145' and 200' NAB Furnaces with 55 and 97 MMBtu/hr respectively)	1,331.52
Rolling Mill Building (Fifteen 30 MMBtu/hr Soaking Pits)	3,942
Melt Shop Building (62.3 MMBtu/hr EMS Cleaver-Brooks Boiler)	267

The 62.3 MMBtu/hr EMS Cleaver-Brooks Boiler shall burn less than 267 million cubic feet of natural gas in any consecutive 12-month period. This boiler may burn at its maximum rate of 62.3 MMBtu/hr at any given time, but not to exceed the twelve (12) month limit.

16. Recordkeeping Requirements:

- A. Lukens shall keep records of fuel usage consistent with previous terms and conditions.
- B. Lukens shall keep a record of the amount of paint used per calendar year in each steel plate roll painting operation. In addition, the weight of VOCs per gallon of coating (minus water) shall also be recorded.
- C. Lukens shall keep a record of the number of hours of operation per year of each emergency generators described in Condition 3 herein
- D. Records shall be retained for at least two (2) years and shall be made available to the Department upon request.
- E. Lukens shall maintain comprehensive, accurate records of any additional data as required in accordance with 25 Pa. Code Section 129.95.

17. If, at any time, the permittee causes, permits or allows any modification (as that term is defined in Chapter 121 of Title 25, the Rules and Regulations of the Department of Environmental Protection), of the aforementioned air contamination source(s), the operation and use of which is authorized by this permit, the permit shall be suspended, and the permittee shall not thereafter continue to operate or use the said air contamination source(s).

**OPERATING PERMIT CONDITIONS**  
**PERMIT NO. OP-15-0010**  
**LUKENS STEEL COMPANY**

**CONDITIONS (continued):**

*Conditions 18 through 22 herein pertain to one 62.3 MMBtu/hr Cleaver-Brooks Boiler previously operated pursuant to operating permit 15-302-082.*

18. The company must maintain and operate all gas meters necessary to determine and to record the amount of fuel usage.
19. This boiler shall burn less than  $267 \times 10^6$  cubic feet of natural gas per year.
20. The boiler is subject to emission limitations of the New Source Performance Standards, 40 CFR, Part 60, Subpart Dc. The following limit shall be maintained for this boiler:
  - a. Sulfur dioxide emissions shall not exceed 0.5 lbs./MMBtu heat input.
21. Records shall be kept for daily fuel consumption in accordance with 40 CFR 60.48C(g).
22. This source is subject to Subpart Dc of the Standard of Performance for New Stationary Sources and shall comply with all applicable requirements of this Subpart. 40 CFR § 60.4 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, Toxic and Radiation Division  
US EPA, Region III  
1650 Arch Street  
Philadelphia, PA 19103

*Conditions 23 through 31 herein pertain to two Electric Arc Furnaces previously operated pursuant to Operating Permit No. 15-307-020B.*

23. The Vacuum Oxygen Decarburization (VOD) process covered under this Operating Permit shall be limited to a throughput of 545,250 tons/year maximum.
24. The flare shall operate whenever the VOD process is also operating.
25. The natural gas used in the flare and associated pilot shall be limited to a maximum throughput of 61.4 million cubic feet per year.
26. The control devices covered under this operating permit consist of a main baghouse E, and three smaller baghouses A, B and D ("emission control system") and a flare.
  7. The particulate emissions from the main baghouse E, shall be limited to 0.0052 gr./dscf.
28. The pressure drop across each of the four baghouses covered under this operating permit shall be 8 inches water gauge maximum.

**OPERATING PERMIT CONDITIONS**  
**PERMIT NO. OP-15-0010**  
**LUKENS STEEL COMPANY**

**CONDITIONS (continued):**

29. The company shall make the following inspections and record:

On a daily basis:

Fan motor amperage and static pressure differential for each control device in the emission control system.

On a monthly basis:

Conduct an operational status inspection of all equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). The inspection shall 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, fan erosion, etc.) Any deficiencies shall be noted and proper maintenance performed within the next working day.

30. The electric arc furnace melting operations and ladle refining facility, both shall be limited to 1.55 million tons/year individually. Prior approval shall be obtained from the Department for any increase in these amounts.
31. The company shall submit in writing a notice of intent to increase the maximum annual capacities of furnace D melting or the ladle refining facility, or to reactivate furnace C, or any combination thereof, and an engineering plan providing information on the methods of increase and/or reactivation, at least thirty (30) days prior to the proposed increase or reactivation date.
32. Lukens, within one hour of discovery, shall notify the Department of Environmental Protection, at 610-832-6241, of any malfunction of the source(s) or associated air cleaning device(s) which results in, or may possibly be resulting in, the emission of air contaminants in excess of the limitations specified in, or established pursuant to, any applicable rule or regulation contained in Article III of the Rules and Regulations of the Department of Environmental Protection. A written report shall be submitted to the Department within two working days following the incident describing the malfunctions and corrective actions taken.
33. If, at any time, the Department has cause to believe that air contaminant emissions from the aforementioned source(s) may be in excess of the limitations specified in any condition contained herein or specified in, or established pursuant to, any applicable rule or regulation contained in Article III of the Rules and Regulations of the Department of Environmental Protection, the company shall be required to conduct whatever tests are deemed necessary by the Department to determine the actual emission rate(s). Such testing shall be conducted in accordance with the provisions of Chapter 139 of the Rules and Regulations of the Department of Environmental Protection, where applicable, and in accordance with any restrictions or limitations established by the Department at such time as it notifies the company that testing is required.



**OPERATING PERMIT CONDITIONS**  
**PERMIT NO. OP-15-0010**  
**LUKENS STEEL COMPANY**

**CONDITIONS (continued):**

34. This Operating Permit is valid for a limited period of time and may be renewed before its expiration. Requests for an Operating Permit renewal must be in writing and must be accompanied by the appropriate permit application processing and annual permit administration fees as specified in Section 127.703 of the Rules and Regulations of the Department of Environmental Protection. These fees shall be paid in the form of a check payable to the "Commonwealth of Pennsylvania-Clean Air Fund." The request should be made using the appropriate application form and must be received by the Department along with a completed Air Pollution Control Act Compliance Review form no later than 30 days prior to the expiration date of this permit.

Re 30 (LK99)112

**COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
FIELD OPERATIONS - AIR QUALITY PROGRAM**

**OPERATING PERMIT**

In accordance with provisions of the air Pollution Control Act, the Act of January 8, 1960, P.L. 2119, as amended, and after due consideration of an application received under Chapter 127 of the rules and regulations of the Department of Environmental Protection, the Department hereby issues this permit for the operation of the air contamination source(s) described below.

<b>Permit No.:</b>	<b>OP-15-0010</b>	<b>Source(s):</b>	<b>As described herein</b>
<b>Owner:</b>	<b>Lukens Steel Company</b>	<b>Air Cleaning Device(s):</b>	<b>As described herein</b>
<b>Address:</b>	<b>50 South First Ave. Coatesville, PA 19320-091</b>	<b>Location:</b>	<b>Plymouth Township Montgomery County</b>
<b>Attention:</b>	<b>Mr. James H. O'Brien Sr. Environmental Engineer</b>		

This permit is subject to the following conditions:

1. That the source(s) and any associated air cleaning device(s) are to be:
  - a. operated in such a manner as not to cause air pollution;
  - b. in compliance with the specifications and conditions of the applicable plan approval(s) issued;
  - c. operated and maintained in a manner consistent with good operating and maintenance practices.
2. This permit is valid only for the specific equipment, location and owner named above.  
See attached for additional conditions.

Failure to comply with the conditions placed on this permit is a violation of Section 127.444. Violation of this or any other provision of Article III of the rules and regulations of the Department of Environmental Protection will result in suspension or revocation of this permit and/or prosecution under Section 9 of the Air Pollution Control Act.

Issued: 4/20/1999

Expires: 4/20/2004

cc: Harrisburg, Central Office  
RACT Binder

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Francine Carlini  
Air Pollution Program Manager

Conditions (continued):

3. This Operating Permit incorporates Reasonably Available Control Technology (RACT) determinations as required by Title I provisions of the Clean Air Act Amendments and 25 Pa. Code Section 129.91 through 129.95 for:
  - Four (4) 27.3 MMBtu/hr heat input Brandy BH-B&W Boilers
  - Two (2) Electric Arc Furnaces identified as /C/ and /D/
  - Nine (9) Batch Heat Treating Furnace with rated heat input between 20 to 50 MMBtu/hr.
  - One 18 MMBtu/hr Batch Heat Treating Furnace
  - 90 MMBtu/hr heat input Drever Furnace
  - Two (2) NAB Furnaces identified as 145' and 200' with rated heat input of 55 and 97 MMBtu/hr respectively.
  - Eight (8) 15 MMBtu/hr Soaking Pits
  - Fifteen (15) 30 MMBtu/hr Soaking Pits
  - Steel Plate Roll Painting
  - Parts Degreasers > 10 Sq. Ft
  - Parts Degreasers < 10 Sq. Ft
  - 62.3 MMBtu/hr EMS Cleaver-Brooks Boiler
  - Following twelve (12) small boilers with rated heat input less than 20 MMBtu/hr
    - 9.9 MMBtu/hr Nickel Clad #2 Boiler
    - Two (2) 6.28 MMBtu/hr ARC Bldg. Boilers
    - 1.65 MMBtu/hr Test Lab Boiler
    - 1.37 MMBtu/hr Corporate Office Boiler
    - Two (2) Luken Weld Boilers rated at 0.5 and 0.42 MMBtu/hr
    - 5.23 MMBtu/hr Luken Weld #2 Boiler
    - Two (2) 1 MMBtu/hr West Side Boilers
    - 0.75 MMBtu/hr By-Products #1 Boiler
    - 0.3 MMBtu/hr Natural Gas Boiler
  - Zip Line Operation
  - Plate Marking Operations
  - Following seventeen (17) small Heaters and Pre-Heaters with rated heat input less than 20 MMBtu/hr
    - Five (5) Clad Assembly Bldg. Pre-heaters, each rated at 3.8 MMBtu/hr
    - Tundish Heater rated at less than 1 MMBtu/hr
    - Small Space Heater rated at less than 1 MMBtu/hr
    - Two (2) ACA Pre-Heaters rated at 6.65 and 4.75 MMBtu/hr
    - 5.7 MMBtu/hr ICA-Ingots Pre-heater
    - Hot water heater rated at less than 1 MMBtu/hr
    - 7.6 MMBtu/hr F.C.P. Slab Pre-heater
    - 140" Mill Office heater rated at less than 1 MMBtu/hr
    - Four (4) EMS Pre-heaters each rated at 10 MMBtu/hr
  - 140" Mill Sauder Furnace
  - Four (4) Emergency Generators each rated at 1000 KW.
  - 10 MMBtu/hr EMS Dryer

- Three (3) Central Main Natural Gas-fired Electric Generators
  - 6 MMBtu/hr Bickley Furnace
  - Miscellaneous Process and Gas Use each rated at less than 20 MMBtu/hr
  - Miscellaneous VOC sources (cleaning, lubrication etc.)
  - Caster Spray Chamber
  - Fugitive NG Lines
  - 30 KW Natural Gas-fired Emergency Generator
  - Four (4) Emergency Diesel Generators (76 KW, 50 KW, 187 KW, 250 KW)
  - Emergency Propane Generator (8 KW)
  - Emergency Diesel Pump (1200 hp)
  - Six (6) Emergency Natural Gas-fired pumps rated at 250 bhp each
  - Two(2) Emergency Natural Gas-fired pumps rated at 20 bhp each
  - Three (3) Emergency Natural Gas-fired pumps rated at 3 bhp each
  - 0.3 MMBtu/hr Natural Gas-fired boiler
  - 1.5 MMBtu/hr Propane Vaporizer
  - Seven (7) greater than 2000 gallons capacity above ground storage tanks
  - Miscellaneous less than 2000 gallons capacity above ground storage tanks
  - One 12,000 gallon under ground storage tank.
4. This RACT Operating Permit supersedes the Operating Permit No. 15-307-020B with respect to \D\ and \C\ Electric Arc Furnaces, and Permit No. 15-302-082 with respect to 62.3 MMBtu/hr heat input Clever-Brooks EMS Boiler for the incorporation of NOx/VOC Reasonably Available Control Technology (RACT) requirements of 25 PA Code Section 129.91-95. The terms and conditions of these Operating Permit are incorporated in this RACT Permit.
5. The expiration date shown on this RACT Operating Permit is for State purposes. For Federal Enforcement purposes the RACT portion of this RACT 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 US Environmental Protection Agency (EPA). The Operating Permit shall become enforceable by the US EPA upon its approval of the above as a revision to the SIP.
6. As per 25 PA Code Section 129.93 (c) (1) of RACT requirements, all units with a rated heat input of less than 20 MMBtu/hr, as described in Condition 3 herein shall be maintained and operated in accordance with manufacturers specifications as well as in accordance with good air pollution control practices.
7. The potential to emit volatile organic compounds from each of the following sources shall never exceed 3 pounds per hour, 15 pounds per day or 2.7 tons per year. Should any of these limitations ever be exceeded for any of the sources listed below, a detailed RACT analysis which meets the criteria specified in Section 129.92 of Chapter 129 of Article III of

the Rules and Regulations of the Department of environmental Protection must be submitted to the Department for each source contained in the respective source category.

- Four (4) 27.3 MMBtu/hr heat input Brandy BH-B&W Boilers
- Ten (10) Batch Heat Treating Furnaces
- 90 MMBtu/hr heat input Drever Furnaces
- Two (2) NAB Furnaces as 145' and 200' with rated heat input of 55 and 97 MMBtu/hr respectively.
- Eight (8) 15 MMBtu/hr Soaking Pits
- Fifteen (15) 30 MMBtu/hr Soaking Pits
- 62.3 MMBtu/hr EMS Cleaver-Brooks Boiler
- Twelve (12) small boilers with rated heat input less than 20 MMBtu/hr
- Zip Line Operation
- Seventeen (17) small Heaters and Pre-Heaters with rated heat input less than 20 MMBtu/hr
- 140" Mill Sauder Furnace
- Four (4) Emergency Generators each rated at 1000 KW.
- 10 MMBtu/hr EMS Dryer
- Three (3) Central Main Natural Gas-fired Electric Generators
- 6 MMBtu/hr Bickley Furnace
- Miscellaneous VOC sources (cleaning, lubrication etc.)
- 30 KW Natural Gas-fired Emergency Generator
- Four (4) Emergency Diesel Generators (76 KW, 50 KW, 187 KW, 250 KW)
- Emergency Propane Generator (8 KW)
- Emergency Diesel Pump (1200 hp)
- Six (6) Emergency Natural Gas-fired pumps rated at 250 bhp each
- Two(2) Emergency Natural Gas-fired pumps rated at 20 bhp each
- Three (3) Emergency Natural Gas-fired pumps rated at 3 bhp each
- 0.3 MMBtu/hr Natural Gas-fired boiler
- 1.5 MMBtu/hr Propane Vaporizer
- Miscellaneous less than 2000 gallons capacity above ground storage tanks

8. Pursuant to presumptive RACT requirements of 25 Pa. Code § 129.93(b)(2), ~~four (4) Brandy BH-B&W boilers shall undergo annual tune-ups on the combustion process. The first such tune-up for each of these boilers shall be accomplished by the end of calendar year 1999, which subsequent tune-ups to be performed on or about the same date(s) each year thereafter.~~
9. Pursuant to presumptive RACT requirements of 25 Pa. Code § 129.93(c)(5), ~~emergency generators and pumps described in Condition No. 3 herein shall not operate more than 500 hours in any consecutive 12-month period. Additionally, all emergency generators and pumps shall be maintained and operated in accordance with manufacturers' specifications as well as in accordance with good air pollution control practices.~~

10. Pursuant to the VOC RACT requirements established in 25 Pa. code §129.91-§129.95, the sources identified in Condition No. 3 shall be maintained and operated in accordance with manufacturers' specifications as well as in accordance with good air pollution control practices.
11. The VOC emissions from the steel plate roll painting sources shall comply with 25 Pa. Code § 129.52 requirements.
12. The VOC emissions from Parts Degreasers which have a opening greater than ten (10) square feet shall comply with the 25 Pa. Code § 129.63 requirements.
13. The VOC emissions from 12000 gallon under ground storage tank identified in Condition 3 herein shall comply with 25 Pa. Code § 129.61 and 25 Pa. Code § 129.62 (a) & (b) requirements.
14. The VOC emissions from seven above ground storage tank with capacity of greater than 2000 gallons shall comply with 25 Pa. Code § 129.57 requirements.
15. Lukens shall not exceed the fuel usage from the following source groups as follows:

<u>Group Name</u>	<u>Maximum Fuel Consumption Rates in Million Cubic Feet per Year (12-month rolling basis)</u>
Brandywine Boiler House (Four 27.3 MMBtu/hr Brandy Boilers)	959.59
Green Annealing Building (Nine Batch Heat Treating Furnaces Source NO. 7, 8, 9, 10, 11, 12,14, 15,and 16)	2,688.88
Conditioning (ICA) Building (One Batch Heat Treating Furnace Source No. 13)	350.40
Continuous Finishing Bldg. (Drever Furnace, 90 MMBtu/hr)	788.40
Naval Armament Building (145' and 200' NAB Furnaces with 55 and 97 MMBtu/hr respectively)	1,331.52
Rolling Mill Building Fifteen 30 MMBtu/hr Soaking Pits)	3,942
Melt Shop Building (62.3 MMBtu/hr EMS Cleaver-Brooks Boiler)	267

The 62.3 MMBtu/hr EMS Clever-Brooks Boiler shall burn less than 267 million cubic feet of natural gas in any consecutive 12-month period. This boiler may burn at its maximum rate of 62.3 MMBtu/hr at any given time, but not to exceed the twelve (12) month limit.

16. Recordkeeping Requirements:

- A. Lukens shall keep records of fuel usage consistent with previous terms and conditions.
- B. Lukens shall keep a record of the amount of paint used per calendar year in each steel plate roll painting operation. In addition, the weight of VOCs per gallon of coating (minus water) shall also be recorded.
- C. Lukens shall keep the record of number of hours of operation per year of each emergency generators described in Condition 3 herein
- D. The records shall be retained for at least 2 years and shall be made available to the Department upon request.
- C. Lukens shall maintain comprehensive, accurate records of any additional data as required in accordance with 25 Pa. Code 129.95.

17. ~~If any time the permittee causes, permits or allows any modification (as that term is defined in Chapter 121 of Title 25, the Rules and Regulations of the Department of Environmental Protection of the aforementioned air contamination source(s), the operation and use of which is authorized by this permit, the permit shall be suspended, and the permittee shall not thereafter continue to operate or use said air contamination source(s).~~

~~*Conditions 18 through 22 herein pertain to one 62.3 MMBtu/hr Clever-Brooks Boiler previously operated pursuant to operating permit 15-302-082.*~~

- 18. ~~The company must maintain and operate all gas meters necessary to determine and to record the amount of fuel usage.~~
- 19. ~~This boiler shall burn less than  $267 \times 10^6$  cubic feet of natural gas per year.~~
- 20. ~~The boiler is subject to emission limitations of the New Source Performance Standard, 40 CFR, Subpart Dc. The following limit shall be maintained for this boiler.~~
  - a. ~~Sulfur dioxide emissions shall not exceed 0.5 lbs/MMBtu heat input.~~
- 21. ~~Records shall be kept for daily fuel consumption in accordance with 40 CFR paragraph 60.48C(g).~~

22. This source is subject to Subpart Dc of the Standard of Performance for New Stationary Sources and shall comply with all applicable requirements of this Subpart 40 CFR § 60.4 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, Toxic and Radiation Division  
US EPA, Region III  
841 Chestnut Street  
Philadelphia, PA 19107

*Conditions 23 through 31 herein pertain to two Electric Arc Furnaces previously operated pursuant to operating permit 15-307-020B*

23. The VOD process covered under this Operating Permit shall be limited to a throughput of 545,250 tons/yr. maximum.
24. The flare shall operate whenever the VOD process is also operating.
25. The natural gas used in the flare and associated pilot shall be limited to a maximum throughput of 61.4 million cubic feet per year.
26. The control devices covered under this operating permit consist of a main bag house E, and three smaller bag houses A, B and D ("emission control system") and a flare.
27. The particulate emissions from the main bag house E, shall be limited to 0.0052 gr./dscf.
28. The pressure drop across each of the four bag houses covered under this operating permit shall be 8 inches water gauge maximum.
29. The company shall make the following inspections and records:
- On a daily basis:
- Fan motor amperage and static pressure differential for each control device in the emission control system.
- On a monthly basis:
- Conduct an operational status inspection of all equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). The inspection shall include observations of the physical appearance of the equipment (e.g. presence of holes in duct work or hoods, flow constrictions caused by dents or accumulated dust in duct work, fan erosion, etc.) Any deficiencies shall be noted and proper maintenance performed within the next working days.



30. The electric arc furnace melting operations and ladle refining facility shall be limited to 1.55 million tons/year and 1.55 million tons/year respectively. Prior approval shall be obtained from the Department for any increase in these amounts.
31. The company shall submit in writing a notice of intent to increase the maximum annual capacities of furnace "D" melting or the ladle refining facility, or to reactivate furnace "C", or any combination thereof, and an engineering plan providing information on the methods of increase and/or reactivation, at least thirty (30) days prior to the proposed increase or reactivation date.
32. Lukens, within one hour of occurrence, shall notify the Department of Environmental Protection, at (610) 832-6242, of any malfunction of the source(s) or associated air cleaning device(s) which results in, or may possibly be resulting in, the emission of air contaminants in excess of the limitations specified in, or established pursuant to, any applicable rule or regulation contained in Article III of the Rules and Regulations of the Department of Environmental Protection. A written report shall be submitted to the Department within two working days following the incident describing the malfunctions and corrective actions taken.
33. If at any time the Department has cause to believe that air contaminant emissions from the aforementioned source(s) may be in excess of the limitations specified in any condition contained herein or specified in, or established pursuant to, any applicable rule or regulation contained in Article III of the Rules and Regulations of the Department of Environmental Protection, the company shall be required to conduct whatever tests are deemed necessary by the Department to determine the actual emission rate(s). Such testing shall be conducted in accordance with the provisions of Chapter 139 of the Rules and Regulations of the Department of Environmental Protection, where applicable, and in accordance with any restrictions or limitations established by the Department at such time as it notifies the company that testing is required.
34. This Operating Permit is valid for a limited period of time and may be renewed before its expiration. Requests for an Operating Permit renewal must be in writing and must be accompanied by the appropriate permit application processing and annual permit administration fees as specified in Section 127.703 of the Rules and Regulations of the Department of Environmental Protection. These fees shall be paid in the form of a check payable to the "Commonwealth of Pennsylvania-Clean Air Fund". The request should be made using the appropriate application form and must be received by the Department along with a completed Air Pollution Control Act Compliance Review form no later than 30 days prior to the expiration date of this permit.

All necessary forms can be obtained from the Department upon request.

35. Any notification required as a result of any condition herein should be directed to:

Regional Air Program Manager  
Pennsylvania Department of Environmental Protection  
Lee Park - Suite 6010  
555 North Lane  
Conshohocken, PA 19428,  
Telephone: (610) 832-6241