



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
AIR QUALITY PROGRAM

PLAN APPROVAL

Issue Date: September 17, 2019

Effective Date: September 17, 2019

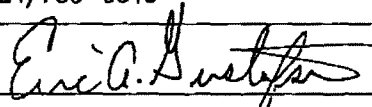
Expiration Date: [REDACTED]

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

The regulatory or statutory authority for each plan approval condition is set forth in brackets. All terms and conditions in this permit are federally enforceable unless otherwise designated as "State-Only" requirements.

Plan Approval No. 10-0371

Federal Tax Id - Plant Code: 20-2545879-1

Owner Information	
Name: SONNEBORN LLC	
Mailing Address: 100 SONNEBORN LN	
PETROLIA, PA 16050	
Plant Information	
Plant: SONNEBORN INC/PETROLIA PLT	
Location: 10	Butler County 10944 Petrolia Borough
SIC Code: 2999 Manufacturing - Petroleum And Coal Products, Nec	
Responsible Official	
Name: ROMAN MYRNA	
Title: V. P. OF MANUFACTURING	
Phone: (724) 756 - 2210	
Plan Approval Contact Person	
Name: THOMAS E. DU PLESSIS	
Title: MGR. ENV, SAFETY & HEALTH	
Phone: (724) 756 - 9310	
[Signature]	
ERIC A. GUSTAFSON, NORTHWEST REGION AIR PROGRAM MANAGER	

Pages 2-4, 6-11, 17-18, 21-37, and 39-51 are redacted entirely.



SECTION A-1: Pollutant Emissions by Unit

Source ID	Source Name	Capacity/Throughput	Fuel/Material
0110	H-101 METHANE REFORMER	30.600 MMBTU/HR	
		9.140 MCF/HR	NATURAL GAS
		82.710 MCF/HR	WASTE GAS
0116	H-1 FEED PROCESS HEATER	33.270 MMBTU/HR	
		31.690 MCF/HR	NATURAL GAS
0110B	WASTE HEAT BOILER	8.069 MMBTU/HR	
		9,999,999.000 BCF/HR	NATURAL GAS
FML01	NATURAL GAS LINE		
S0110	WASTE HEAT BOILER STACK		
S0116	H-1 FEED HEATER STACK		

SECTION 129.99 (g) EMISSIONS LIMITS

VII. ADDITIONAL REQUIREMENTS.

001

Plan approval terms and conditions.

(a) In accordance with §129.99(g), the emission limit and requirements specified in the plan approval or operating permit issued by the Department or appropriate approved local air pollution control agency under subsection (f) supersede the emission limit and requirements in the existing plan approval or operating permit issued to the owner or operator of the source prior to April 23, 2016, on the date specified in the plan approval or operating permit issued by the Department or appropriate approved local air pollution control agency under subsection (f), except to the extent the existing plan approval or operating permit contains more stringent requirements.

(b) In accordance with §129.100(a), except as provided in subsection (c), the owner or operator of an air contamination source subject to a NOx requirement or RACT emission limitation or VOC requirement or RACT emission limitation, or both, listed in §129.97 (relating to presumptive RACT requirements, RACT emission limitations and petition for alternative compliance schedule) shall demonstrate compliance with the applicable RACT requirement or RACT emission limitation by performing the following monitoring or testing procedures:

(1) In accordance with §129.100(a)(4), for an air contamination source without a CEMS, monitoring and testing in accordance with a Department approved emissions source test that meets the requirements of Chapter 139, Subchapter A (relating to sampling and test methods and procedures). The source test shall be conducted one time in each 5-year calendar period.

(c) In accordance with §129.100(c), an owner or operator of an air contamination source subject to this section, §129.96 and §129.97 and §129.98 (relating to facility-wide or system-wide NOx emissions averaging plan general requirements) may request a waiver from the requirement to demonstrate compliance with the applicable emission limitation listed in §129.97 if the following requirements are met:

(1) The request for a waiver is submitted, in writing, to the Department not later than:

i. October 24, 2016, for a source subject to §129.96.

(2) The request for a waiver demonstrates that a Department-approved emissions source test was performed in accordance with the requirements of Chapter 139, Subchapter A, on or after:

**SECTION 129.96(a) Approval Requirements**

i. April 23, 2015, for a source subject to 129.96(a).

(3) The request for a waiver demonstrates to the satisfaction of the Department that the test results show that the source's rate of emissions is in compliance with the source's applicable NOx emission limitation or VOC emission limitation.

(4) The Department approves, in writing, the request for a waiver.

(d) In accordance with §129.100(d), the owner and operator of an air contamination source subject to this section and §§129.96-129.99 shall keep records to demonstrate compliance with §§129.96-129.99.

(e) In accordance with §129.100(i), records shall be retained by the owner or operator for 5 years and made available to the Department or appropriate approved local air pollution control agency upon receipt of a written request from the Department or appropriate approved local air pollution control agency.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]



SECTION 0 - Source Level Plan Approval Requirements

Source ID: 0110

Source Name: H-101 METHANE REFORMER

Source Capacity/Throughput:

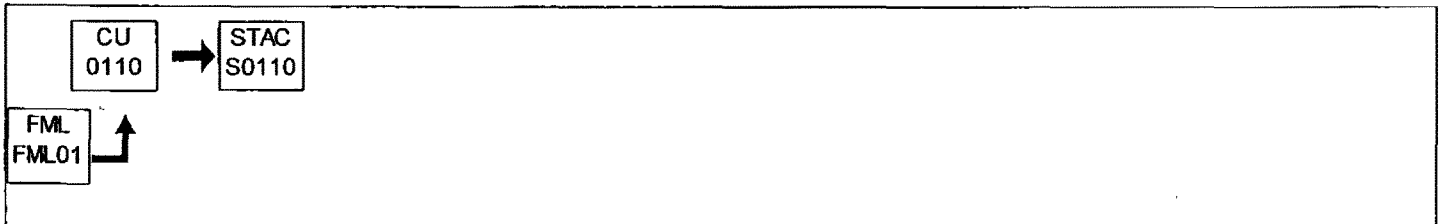
30.600 MMBTU/HR

9.140 MCF/HR

NATURAL GAS

82.710 MCF/HR

WASTE GAS



II. TESTING REQUIREMENTS.

001

Plan approval terms and conditions.

a) Within one hundred eighty (180) days of the issuance of plan approval 10-0371 the permittee shall perform stack testing of H-101 Methane Reformer for NOx. This shall be a one-time test for the purpose of demonstrating compliance with the proposed RACT II Emission Rate Action Levels in VI #003C. Testing load conditions shall be representative to within 10% of maximum load design capacity or to within 10% of the maximum achievable operating load. Stack testing shall be performed in accordance with the provisions of Chapter 139 of the Rules and Regulations of the Department of Environmental Protection.

b) One paper copy plus one electronic copy of all source test submissions (notifications, protocols, reports, supplemental information, etc.) shall be sent to both PSIMS Administration in Central Office and to Regional Office AQ Program Manager.

Paper copies shall be sent using the following mailing addresses:

CENTRAL OFFICE:

Pennsylvania Department of Environmental Protection

Attn: PSIMS Administrator

P.O. Box 8468

Harrisburg, PA 17105-8468

NORTHWEST REGIONAL OFFICE:

Pennsylvania Department of Environmental Protection

Attn: Air Quality Program Manager

230 Chestnut St.

Meadville, PA 16335

Electronic copies shall be sent to the following e-mail addresses:

CENTRAL OFFICE:

RA-EPstacktesting@pa.gov

NORTHWEST REGIONAL OFFICE:

RA-EPNWstacktesting@pa.gov

c) At least 90 days prior to performing a stack test, a protocol shall be submitted in accordance with the provisions of Chapter 139 of the Rules and Regulations of the Department of Environmental Protection. Submit the protocol via the instructions in b). The protocol shall contain, at a minimum, location of sampling ports, planned production rates, and any other information applicable to the stack testing. Performing a stack test prior to Department approval of the protocol may invalidate the results.

**SECTION 10.1 - Sonneborn Inc. Plan Approval Requirements**

- d) At least 2 weeks prior to the test, the Department shall be informed, in writing, of the date and time of the test.
- e) Within 60 days after completion of the test, the complete test report, including, but not limited to, production rates during testing, calculation methods and results, and any other applicable testing information that will allow for a complete review of the test and results, shall be submitted to the Department for approval. Submit the report via the instructions in b).
- f) If, at any time, the Department has reason to believe that the air contaminant emissions from the source are, or may be, in excess of any applicable air contaminant emission limitation or Action Level, the owner or operator shall conduct stack tests as are deemed necessary by the Department to determine the actual air contaminant emission rate. The owner or operator shall perform any such testing in accordance with the applicable provisions of 25 Pa. Code, Chapter 139 (relating to sampling and testing) as well as in accordance with any additional requirements or conditions established by the Department at the time the owner or operator is notified, in writing, of the need to conduct testing.

IV. RECORDKEEPING REQUIREMENTS.

002

Plan approval terms and conditions.

- (a) The owner or operator shall record each burner tune-up. This record shall contain, at a minimum:
- (1) The date of the tuning procedure.
 - (2) The name of the service company and the technician performing the procedure.
 - (3) The final operating rate or load.
 - (4) The final NOx and CO emission rates.
 - (5) The final excess oxygen rate.
 - (6) Other information required by the applicable operating permit.

VI. WORK PRACTICE REQUIREMENTS.

003

Plan approval terms and conditions.

- (a) The H-101 Methane Reformer shall receive a burner tune-up at a minimum of once every 24 months when a plant shutdown event permits its' completion. A burner tune-up shall occur at a minimum of once every 48 consecutive months. The first burner tune-up shall occur 180 days after issuance of plan approval 10-0371. The tune-up shall include any procedures recommended by the manufacturer and the following at a minimum:
- (1) Inspection and cleaning or replacement of fuel-burning equipment, including the burners and components, as necessary, for proper operation as specified by the manufacturer.
 - (2) Inspection of the flame pattern and adjustment of the burner, as necessary, to optimize the flame pattern to minimize total emissions of NOx and, to the extent possible, emissions of CO.
 - (3) Inspection and adjustment, as necessary, of the air-to-fuel ratio control system to ensure proper calibration and operation as specified by the manufacturer.
- (b) The burners of Source 0110 shall be tuned and operated with the lowest amount of excess air achievable which produces a stable and reliable flame.

**SECTION II - Source Level Plan Approval Requirements**

(c) If emissions from Source 0110, as determined during the stack test program required by Condition II #001(a), exceed either of the following Emission Rate Action Levels, then (c)(1) shall apply.

NOx: 9.31 lb/hr

NOx: 41.55 tpy

(1) A new RACT II proposal for Source 0110 shall be prepared by Sonneborn, LLC and submitted to the Department within 90 days of the submittal of a stack test report which shows an exceedance of the above emission rates.

**SECTION D: Source Level Plan Approval Requirements**

Source ID: 0116

Source Name: H-1 FEED PROCESS HEATER

Source Capacity/Throughput:

33.270 MMBTU/HR

31.690 MCF/HR

NATURAL GAS

**I. RESTRICTIONS.****Throughput Restriction(s).**

001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

(a) Source 0116 shall not combust more than:

(1) 277.6 MMcf of natural gas in any 12 consecutive months

(2) 31.7 Mcf/hr of natural gas

II. [REDACTED]**[REDACTED]****III. [REDACTED]****[REDACTED]****IV. RECORDKEEPING REQUIREMENTS.**

002 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

(a) The permittee shall maintain monthly records of the hours of operation and the amount of natural gas consumed by this source.

(b) The permittee shall perform monthly calculations to demonstrate compliance with the fuel throughput restrictions for this source. These calculations shall include the hourly fuel consumption and the twelve (12) month rolling total fuel consumption. This twelve month rolling total is determined by summing the most recent fuel usage with the prior eleven (11) months fuel usage.

(c) Compliance with hourly fuel limits shall be determined by calculating an average hourly limit from monthly hours of operation and monthly fuel use. The average hourly rate shall be compared to the hourly limit for this source. Records of these calculations shall be maintained in a log. Calculation methods must be approved by the Department to be used for compliance purposes.

(d) The owner or operator shall record each burner tune-up. This record shall contain, at a minimum:

(1) The date of the tuning procedure.

(2) The name of the service company and the technician performing the procedure.

(3) The final operating rate or load.

(4) The final NOx and CO emission rates.

(5) The final excess oxygen rate.

(6) Other information required by the applicable operating permit.

**SECTION 10. Source Level Permit Approval Procedures**

1. [REDACTED]

[REDACTED]

2. [REDACTED]

003 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

(a) This source shall receive a burner tune-up at a minimum of once every 24 months when a plant shutdown event permits its' completion. A burner tune-up shall occur at a minimum of once every 48 months. The tune-up shall include any procedures recommended by the manufacturer and the following at a minimum:

(i) Inspection and cleaning or replacement of fuel-burning equipment, including the burners and components, as necessary, for proper operation as specified by the manufacturer

(ii) Inspection of the flame pattern and adjustment of the burner, as necessary, to optimize the flame pattern to minimize total emissions of NOx and, to the extent possible, emissions of CO.

(iii) Inspection and adjustment, as necessary, of the air-to-fuel ratio control system to ensure proper calibration and operation as specified by the manufacturer.

3. [REDACTED]

[REDACTED]

[REDACTED]



SECTION 101 Source Level Plan Approval Requirements

Source ID: 0110B

Source Name: WASTE HEAT BOILER

Source Capacity/Throughput:

8.069 MMBTU/HR

***** BCF/HR

NATURAL GAS



IV. RECORDKEEPING REQUIREMENTS.

001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

(a) The source's hours of operation shall be recorded in a log. The total hours of operation occurring each month shall be recorded in the log.

VI. WORK PRACTICE REQUIREMENTS.

002 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

(a) The Waste Heat Boiler shall operate its burner for no more than 2,000 hours in any 12 consecutive month period.