Commonwealth of Pennsylvania Department of Environmental Resources Bureau of Air Quality Control

RACT APPROVAL

PERMIT NUMBER: OP 27-015

Owner:

Tennessee Gas Pipeline

Source&

See attached

Address:

1010 Milam St. P.O. Box 2511

Air Cleaning Page 5

Houston TX 77252

Device

Attention:

Figi C. George

Location:

Station 307

Sr. Environmental Engineer

Howe Twp.,

Forest County

This permit is subject to the following conditions:

- 1. That the source(s) and any associated air cleaning device(s) are to be:
 - 3. Operated in such a manner as not to exceed the emission limitations specified in this Operating Permit;
 - In compliance with the specifications and conditions of the applicable plan approval(s) issued;
 - 5. Operated and maintained in a manner consistent with good operating and maintenance practices.

Failure to comply with the conditions placed on this permit is a violation of 25 Pa. Code 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 on: July 27, 2000

Larry W. Wonders

Regional Air Quality Manager

2. Pursuant to the RACT provisions of Sections 129.91 through 129.95 of Chapter 129 of Article III of the Rules and Regulations of the Department of Environmental Protection, the nitrogen oxides (NOx) emissions from each of the following engines shall not exceed the following limitations:

Emissions #/hr

Units	NOx #/h
1A KVS-412	17.6
2A KVS-412	17.6
3A KVS-412	17,6
4A KVS-412	17.6
6A W ML-12	103
Clark, TCV-10C	26.4

- The NOx emission limits apply at all times except during periods of start-up and shutdown. Provided, however that the duration of start-up or shutdown shall not exceed one hour per occurrence.
- 4. Pursuant to the RACT provisions of Sections 129.91 through 129.95 of Chapter 129 of Article III of the Rules and Regulations of the Department of Environmental Protection, the Worthington ML-12 engine shall be set and maintained with an ignition timing of 3.5 degrees before top dead center, which corresponds to a 1.5 degree retard from a standard ignition timing of 5 degrees before top dead center. The engine shall also be operated and maintained in accordance with good air pollution control practices.
- 5. Pursuant to 25 Pa. Code Section 129.93 (c)(1) of the RACT requirements, RACT for the boilers and other combustion sources with individual rated gross heat inputs less than 20 MMBTU/hr of operation shall be installation, maintenance, and operation in accordance with the manufacturer's specifications. These sources shall also be operated and maintained in accordance with good air pollution control practices.

- 6. Pursuant to 25 Pa. Code Section 129.93 (c)(3) of the RACT requirements, RACT for the two auxiliary engines shall be set and maintained at 4 degree retarded before top dead center relative to standard ignition timing. These engines shall also be operated and maintained in accordance with good air pollution control practices.
- 7. The company shall perform semi-annual stack tests on each of the engines in condition 2 above that operates more than 219 hours during the six month intervals beginning April 1through September30 and October 1 through March 31. The company shall perform such tests using a Department approved portable exhaust gas analyzer. The results from these tests shall be used to demonstrate compliance with the NOx emission in condition 2.
- 8. The Department may alter the frequency of portable analyzer tests based on the test results. The Department reserves the right to require stack tests in accordance with EPA reference methods should the data from the portable analyzer warrants.
- The results of the testing performed pursuant to condition 7 shall be submitted to the Department within 30 days of test date.
- 10. The company shall maintain records in accordance with the record keeping requirements of 25 PA Code Section 129.95.At a minimum, this shall include:
 - a) The number of hours per calendar year that each of the engines identified in condition 2 is operated.
 - b) The amount of fuel used for a minimum of 2 years and shall be made available to the Department upon request.



Source and Air Cleaning Device

Unit	Mfg	HP	RPM	Control Device
4 KVS-412 engines	Ingersoll Rand	2000	330	low emissions combustion
1 ML-12 engine	Worthington	3500	310	Parametric controls
1 TCV-10C engine	Clark	4000	330	

Presumptive NOx Sources

Source	Rated BTU/HR	Rated B.H.P.	
Auxilary engine AAI			370
Auxilary engine AA2		v	370
Main boiler	2,016,000		
Aux. / Comp. Boiler	1,040,000		
2 Warehouse Furnaces	100,000		
2 Equipment Garage Furnaces	160,000		
3 Lunch Room Furnaces	10,000		
Lunch Room Furnace #4	25,000		
3 Pipeline Garage Furnaces	160,000		
Water Building Furnace I	48,000		
2 Pipeline Office Furnaces	35,000		
Main Office Furnace 1	160,000		
Main Office Furnace 2	50,000		
Main Office Hot Water heater	40,000		

Pipeline Office Hot Water heater	37,000	
Lunch Room Hot Water heater	40,000	
Oakite Tank (4 burners)		

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