CONTINUEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCE BUREAU OF AIR QUALITY CONTROL

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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 Resources, the Department hereby issues this permit for the operation of the air contamination source(s) described below.

OP-19-0004	Source &	3 natural gas-fired turbines	
Transcontinental Gas Pipe Line	Air	and associated equipment.	
Corporation	Cleaning		
P.O. Box 1396	Device:		
Houston, Texas 77251-1396	<u>.</u>		
William H. Hammons	Location:	Station 517, Jackson Township,	
Mgr., Environmental Compliance	_	Columbia County	
	Transcontinental Gas Pipe Line Corporation P.O. Box 1396 Houston, Texas 77251-1396 William H. Hammons	Transcontinental Gas Pipe LineAirCorporationCleaningP.O. Box 1396Device:Houston, Texas 77251-1396Location:	

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;
 - 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 Resources will result in suspension or revocation of this permit and/or prosecution under Section 9 of the Air Pollution Control Act.

Issued: MAY 3 0 1395

Environmental Program Manager

cc: Harrisburg File

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4. The aforementioned source(s) may be operated and used only so long as any associated air pollution control devices are operated and maintained in accordance with the specifications set forth in the respective plan approval(s), and the application(s) submitted for said plan approval(s) (as approved by the Department), and in accordance with any conditions set forth herein.

- 7. This operating permit includes reasonably available control technology (RACT) determinations as required by Title 1 provisions of the Federal Clean Air Act and 25 Pa. Code Sections 129.91 through 129.95. Specifically, nitrogen oxides RACT requirements for this facility include the nitrogen oxides emission limits contained in conditions 11 and 12 herein, the operational requirements of conditions 9 and 17 herein, the testing requirements of conditions 18 through 25 herein, and the recordkeeping requirements of subparts a and b of condition 28 herein.
- 8. This operating permit is issued for the operation of a Solar Mars natural gas-fired turbine, 2 Solar Centaur H natural gas-fired turbines, a model F2895GL Waukesha 607 horsepower 350 KW natural gas-fired standby electric generator, a Sellers Boiler 2,093,000 BTU per hour heat input natural gasfired glycol heater and a pipeline liquids storage tank of approximately 8000 gallon capacity.
- 9. The Mars and Centaur turbines shall not be operated more than 3,528 hours/year. The standby electric generator shall not be operated more than 208 hours/year unless operation in excess of this is necessitated by a need for emergency electrical power, in which case it may be operated up to a maximum of 500 hours in any consecutive 12 month period.
- 10. Only pipeline quality natural gas is to be used as fuel in the turbines, standby generator and glycol heater.

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- 11. Pursuant to the best available technology provisions of Chapter 127 of Article III of the Rules and Regulations of the Department of Environmental Resources, the Mars turbine shall not emit nitrogen oxides in excess of 79.3 pounds per hour and 139.9 tons per year, carbon monoxide in excess of 5.8 pounds per hour and 10.2 tons per year or nonmethane hydrocarbons in excess of 1.6 pounds per hour and 2.8 tons per year.
- 12. Pursuant to the best available technology provisions of Chapter 127 of Article III of the Rules and Regulations of the Department of Environmental Resources, the Centaur turbines shall individually not emit nitrogen oxides in excess of 19.3 pounds per hour and 34.0 tons per year, carbon monoxide in excess of 5.2 pounds per hour and 9.2 tons per year or nonmethane hydrocarbons in excess of .8 pounds per hour and 1.4 tons per year.
- 13. Pursuant to the best available technology provisions of Chapter 127 of Article III of the Rules and Regulations of the Department of Environmental Resources, the standby generator shall not emit nitrogen oxides in excess of 2.68 pounds per hour and .3 tons per year, carbon monoxide in excess of 2.68 pounds per hour and .3 tons per year or nonmethane hydrocarbons in excess of 1.34 pounds per hour and .15 tons per year.
- 14. Pursuant to the best available technology provisions of Chapter 127 of Article III of the Rules and Regulations of the Department of Environmental Resources, the glycol heater shall not emit nitrogen oxides in excess of .251 pounds per hour and .45 tons per year, carbon monoxide in excess of .031 pounds per hour and .1 ton per year or nonmethane hydrocarbons in excess of .008 pounds per hour and .02 tons per year.
- 15. Pursuant to the best available technology provisions of Chapter 127 of Article III of the Rules and Regulations of the Department of Environmental Resources, the pipeline liquids storage tank shall be equipped with pressure vacuum valves having a pressure setting of +.7 psig and a vacuum setting of -.3 psig and shall not be vented to atmosphere other than through these valves (except during emergencies, repair situations, and internal tank inspections). Additionally, the pipeline liquids storage tank shall not emit volatile organic compounds in excess of 12.9 pounds/day or 2.4 tons/year.
- 16. Under no circumstances shall the total combined emission of any individual air contaminant from all air contamination sources existing at this facility (Station 517) equal or exceed 250 tons/year.
- 17. The Waukesha standby electric generator and the Sellars Boiler glycol heater shall be maintained and operated in accordance with manufacturer's specifications. They shall additionally be maintained and operated in accordance with good air pollution control practices.
- 18. Within 180 days of the issuance of this permit, the company shall perform a nitrogen oxides stack test (consisting of at least three individual test runs) upon the exhaust of each turbine. Each turbine shall be tested while operating at its maximum rate. The Mars turbine testing shall be performed in

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accordance with the procedures specified in Chapter 139 of Article III of the Rules and Regulations of the Department of Environmental Resources. The Centaur turbines may, at the company's discretion, be tested using an acceptable portable exhaust gas analyzer in lieu of reference method testing.

- 19. At least 60 days prior to the performance of the testing required by condition 18 herein, a pre-test plan shall be submitted to the Department for evaluation. This test plan shall contain the specific testing and analytical procedures to be used in performing the testing and identify the loads the turbines will be operated at during the testing as well as the specific turbine operating parameters to be monitored during the testing. This plan is to be accompanied by a dimensioned sketch of the turbine exhaust configuration showing the proposed location of the sampling ports.
- 20. The Department shall be given at least 14 days advance notice of the specific dates and times for the performance of the testing required by condition 18 herein in order that Department personnel can arrange to be present. The Department is under no obligation to accept the results of any testing performed without adequate advance notice having been given to the Department.
- 21. Within 60 days of completion of the testing required by condition 18 herein, a test report shall be submitted to the Department for the respective turbines. The report shall contain the results of the testing (reported in the following forms: ppmv @15% O₂ on a dry basis at site conditions, ppmv @15%O₂ on a dry basis at ISO conditions, and pounds per hour), a description of the testing and analytical procedures actually used, all turbine operating data collected during the tests, a copy of all raw data and a copy of all calculations generated during data analysis.
- 22. Each of the three turbines shall be retested for nitrogen oxides emissions in 1997 and 1999. This testing shall consist of at least three individual test runs on the exhaust of each turbine and may be done using an acceptable portable exhaust gas analyzer in lieu of reference method testing. These tests shall be conducted while the turbines are operating at maximum load.
- 23. The Department shall be given at least 14 days advance notice of the specific dates and times for the performance of the tests required by condition 22 herein in order that Department personnel can arrange to be present.
- 24. Within 60 days of the completion of testing required by condition 22 herein, a test report shall be submitted to the Department. This report shall contain the results of the testing for each turbine reported as pounds per hour, copies of all raw test data, copies of the calculations used to convert test data to pounds per hour, and the identity of the specific gas analyzer used in testing.
- 25. The Department specifically reserves the right to require reference method testing of any of the abovementioned turbines at any time if it has reason to believe that the emission limitations set forth in any condition of this permit are being exceeded.

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- 27. The nitrogen oxides emission data generated by the Solar Predictive Emission Monitoring System (PEMS) installed on the Mars and Centaur turbines shall not be accepted by the Department of Environmental Resources as representative of the turbines' actual nitrogen oxides emission rates. This condition is subject to revision should new information be brought to the Department's attention which satisfactorily demonstrates the accuracy of the subject systems.
- 28. The company shall maintain comprehensive accurate records of:
 - a) The number of hours per calendar year that each of the turbines, the standby generator and the glycol heater are operated.
 - b) The amount of fuel used per calendar year in each of the turbines.
 - c) The annual pipeline liquids throughput (gallons per year) in the pipeline liquids storage tank.

and shall report this data to the Department upon request.

The Department reserves the right to expand the list contained in this condition.