

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR QUALITY

AUG 10 1995

PLAN APPROVAL

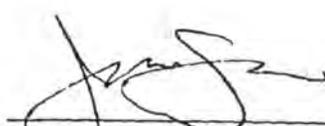
Plan Approval No.:	<u>PA-41-0005A</u>	Source &	<u>three Ingersoll Rand 412-KVS</u>
Owner:	<u>Transcontinental Gas Pipe Line Corporation</u>	Air	<u>natural gas-fired IC engines</u>
Address:	<u>P.O. Box 1396</u> <u>Houston, TX 77251-1396</u>	Cleaning	<u>(engines 1, 2 and 3)</u>
Attn:	<u>Mr. William H. Hammons</u> <u>Manager - Air & Toxics</u>	Device:	<u></u>
		Location:	<u>Station 520, Mifflin Township</u> <u>Lycoming County</u>

In accordance with provisions of the Air Pollution Control Act, the Act of January 8, 1960, P.L. 2119, as amended, and with Chapter 127 of the rules and regulations of the Department of Environmental Protection, the Department on AUG 09 1995 approved plans for the installation of air cleaning devices on the above indicated air contamination sources.

The plan approval is subject to the following conditions:

- (1) The air cleaning devices are to be installed in accordance with the plans submitted with the application (as approved herein).

See attached for additional conditions.


Environmental Program Manager
Air Quality Program
Northcentral Region

cc: Harrisburg
File

12 E. ... Courses
Ozone ...
SEP 10 1995

EPA, REGION III

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2. Upon completion of air cleaning device installation and the implementation of RACT control measures, an operating permit must be obtained.
3. This plan approval incorporates Reasonably Available Control Technology (RACT) determinations as required by the provisions of Title I of the Clean Air Act Amendments and 25 Pa. Code Sections 129.91 through 129.95 for three 2050 horsepower Ingersoll Rand 412-KVS natural gas-fired internal combustion engines (#1, #2 and #3).
4. This plan approval is issued for the installation of low emission combustion (LEC) retrofit kits on three 2050 horsepower Ingersoll Rand 412-KVS natural gas-fired internal combustion engines (#1, #2 and #3). This plan approval is also issued for the modification of the respective engines, said modification consisting of the increase in carbon monoxide and volatile organic compound emissions from each engine which will occur as a result of the low emission combustion (LEC) retrofit kit installations.
5. Transcontinental Gas Pipe Line (TGPL) shall implement the RACT requirements of this plan approval as expeditiously as practicable, but by no later than July 28, 1995.
6. 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 (NO_x, expressed as NO₂) emissions from each of the three Ingersoll Rand 412-KVS engines (#1, #2 and #3) shall not exceed the following limitations following the completion of the LEC retrofit kit installations:

Full Load, Full Speed

13.55 pounds/hour

Never to be Exceeded at any Time

27.1 pounds/hour

Additionally, the emission of volatile organic compounds from each of the 3 engines shall not exceed 2.5 pounds/hour.

7. Engines 1, 2 and 3 are not required to comply with the nitrogen oxides emission limits specified in condition 6 herein during engine startup and shutdown provided that the duration of startup or shutdown does not exceed 15 minutes per occurrence.
8. The carbon monoxide emissions from each of the 3 engines shall not exceed 10.5 pounds per hour following the completion of the LEC retrofit kit installations. This emission limit has not been established pursuant to the RACT requirements of 25 Pa. Code Sections 129.91 through 129.95 and shall not be considered to be part of any State Implementation Plan (SIP) amendment or revision

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request made by the Pennsylvania Department of Environmental Protection to the Environmental Protection Agency with respect to this facility and/or plan approval issuance.

9. Only pipeline quality natural gas shall be used as fuel in these engines.
10. Within 180 days of the completion of the LEC retrofit installations, the company shall perform reference-method nitrogen oxides, carbon monoxide, nonmethane hydrocarbon and volatile organic compound stack testing upon each of the three Ingersoll Rand 412-KVS engines. All testing is to be done while the engines are operating at full load and full speed, using test procedures which are acceptable to the Department.
11. At least 60 days prior to the scheduled performance of the testing required by condition #10 herein, the company shall submit a pretest plan to the Department for evaluation. This plan shall contain a description of the testing and analytical methods to be used for the testing as well as dimensioned drawings of the engine exhausts showing the location of the proposed sampling ports.
12. The Department shall be given at least 10 days advance notice of the scheduled date(s) for the performance of the testing required by condition #10 herein so that Department personnel can arrange to be present.
13. Within 60 days of completion of the testing required by condition #10 herein, 2 copies of a test report shall be submitted to the Department. This report shall contain the results of the testing (expressed as both pounds per hour and grams per horsepower-hour), a description of the testing and analytical procedures actually used, a copy of all pertinent engine operating parameters occurring during testing, a copy of all raw data generated during the testing and a copy of all associated calculations.
14. In addition to the testing required by condition #10 herein, the company shall perform nitrogen oxides testing upon each of these three engines every six months using a Department-approved portable exhaust gas analyzer. The first such testing shall occur approximately six months after the testing required by condition #10 herein.
15. The company shall submit specifications to the Department for the portable exhaust gas analyzer it proposes to use to comply with condition #14 herein by no later than 90 days after the testing required by condition #10 herein.
16. The results of all testing performed pursuant to condition #14 herein shall be submitted to the Department within 30 days of test performance.

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17. In addition to the testing required by conditions #10 and #14 herein, the Department reserves the right to require such additional testing upon the engines as it may deem necessary to determine compliance with any condition contained herein.
18. The company shall maintain comprehensive, accurate records in accordance with 25 Pa. Code 129.95, which shall include, at a minimum, the following:
 - The number of hours per calendar year that each engine is operated.
 - The amount of fuel used per calendar year in each engine.
 - Air manifold and fuel manifold pressure, to be recorded at least once per day for each engine.
 - Timing (BTC), to be recorded at least once per day for each engine.

These records shall be retained for a minimum of two years and shall be made available to the Department upon request. The Department reserves the right to expand the list contained in this condition.

19. Issuance of an operating permit for these three engines is contingent upon satisfactory demonstration of compliance with all conditions contained herein as well as with the requirements specified in, or established pursuant to, all applicable rules and regulations contained in Article III of the Rules and Regulations of the Department of Environmental Protection.