COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR QUALITY

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.:	OP-53-0009	Source &	natural gas compression and
Owner:	National Fuel Gas Supply Corporation	Air	pipeline equipment, as described
		Cleaning	herein
Address:	P. O. Box 2081	Device:	
	Erie, PA 16512		
Attn:	Mr. Gary A. Young	Location:	Ellisburg Compressor Station
			Allegany Twp., Potter County

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: AUG 05 1996

RECEIVED
Ozone Sp & Mobile Sources
Section (3AP21)
JAN 29 1997
EPA, REGION III

Expires:

Environmental Program Manager

cc: Harrisburg
Mansfield
File

PERMIT CONDITIONS

PERMIT NO.: **OP-53-0009**

COMPANY: National Fuel Gas Supply Corporation

3. This operating permit 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 91 through 129.95 for the following natural gas compression station air contamination sources:

three 330 horsepower Ingersoll-Rand model 46SVG natural gas-fired internal combustion engines (designated engines #1 through 3)

one 300 horsepower Ingersoll-Rand model #8X-VG natural gas-fired internal combustion engine (designated engine #4)

one 2850 horsepower Dresser-Rand model #412KVSE natural gas-fired internal combustion engine (designated engine #8) equipped with low emission combustion technology

two 3000 horsepower Cooper model #8QI5JHC2 natural gas-fired internal combustion engines (designated engines #9 and 10) equipped with low emission combustion technology

two 1300 horsepower Cooper model #GMVH6C2 natural gas-fired internal combustion engines (designated engines #11 and 12) equipped with low emission combustion technology

two 200 horsepower Waukesha model #F1905GRU natural gas-fired internal combustion engine-driven electric generators (designated generators GI and G2)

one 200 horsepower Waukesha model #F I 197GRU natural gas-fired internal combustion engine-driven electric generator (designated generator G3)

one 62 million dry standard cubic feet/day natural gas dehydration system and associated still (designated still #1)

17 small natural gas-fired combustion sources - pipeline heaters, dehydration still reboilers, space heaters, etc., listed as sources 16 through 30, 32 and 34 in the company's 8/11/95 RACT General Information Form submission - each of which is rated at less than 4 million BTU per hour heat input

22 tanks (15 containing ethylene glycol engine coolant, 2 lubricating oil, 2 pipeline liquids, 1 waste oil, 1 triethylene glycol and I methanol)

RACT

fugitive emissions, including those from equipment sources (pipe connections, compressor seals, etc.) and operational sources (compressor transition section venting, compressor blowdown, fuel gas vent, pony turbo vent and turbine housing).

This operating permit does not address, nor incorporate any RACT determinations for, one 62 million dry standard cubic feet/day natural gas dehydration system and associated still (designated still #2) and one 95 million dry standard cubic feet/day natural gas dehydration system and associated still (designated still #3).

5. Nothing contained in this permit constitutes or authorizes an extension of the May 31, 1995 RACT compliance date specified in Section 129.91 of Chapter 129 of Article III of the Rules and Regulations of the Department of Environmental Protection.

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, engine #8 shall be operated in such a manner that its emissions of nitrogen oxides and nonmethane hydrocarbons do not exceed the limitations contained in condition 18 below.

7. 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, engines #9 and #10 shall be operated in such a manner that their emissions of nitrogen oxides and nonmethane hydrocarbons do not exceed the limitations contained in condition 20 below.

8. 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, engines #11 and #12 shall be operated in such a manner that their emissions of nitrogen oxides and nonmethane hydrocarbons do not exceed the limitations contained in condition 23 below.

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COMPANY: National Fuel Gas Supply Corporation

9. 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 volatile organic compound emissions from dehydration still #1 shall not exceed 1.5 pounds per hour and 6.6 tons per calendar year. The company shall demonstrate compliance with these limitations, upon Department request, through a computer-assisted mass balance method (GLY-CALTM) or other Department approved methodology.
10. 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, all pipeline equipment (compressor seals, valves, piping connections, etc.) at this compressor station shall be maintained and operated in accordance with good air pollution control practices and in such a way as **to minimize the** fugitive emission of volatile organic compounds. Additionally, fugitive volatile organic compound emissions from this station shall not exceed 10.25 tons per year (as determined by the Department).
11. Pursuant to the presumptive RACT provisions of Section 129.93 of Chapter 129 of Article III of the Rules and Regulations of the Department of Environmental Protection, engines #1 through 4, generators G1 through G3, all 17 small natural gas-fired combustion sources and all 22 storage tanks shall be maintained and operated in accordance with manufacturers' specifications and in accordance with good air pollution control practices. Additionally, engines #1 through 4 and generators G1 and G2 shall have their ignition timing set and maintained at least 4° retarded relative to standard timing, and generator G3 shall not be operated 500 hours or more in any consecutive 12-month period.

12. The potential to emit volatile organic compounds from each of the following source categories shall never exceed 3 pounds per hour, 15 pounds per day or 2.7 tons per year (as determined by the Department). Should any of these limitations ever be exceeded for any of the source categories 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.

    - small natural gas-fired combustion sources
    - storage tanks

13. Engines #8 through #12 shall be stack tested to determine compliance with the RACT emission limitations contained herein. These tests shall be performed (with one exception) in accordance with the schedules and requirements of conditions 19, 22 and 24 herein. The exception is that, for RACT purposes, nonmethane hydrocarbon stack testing shall be performed in addition to the nitrogen oxides tests required by the above-referenced conditions.

14. In addition to tire testing required by condition 13 herein, each of engines #8 through #12 shall be periodically tested for nitrogen oxides emissions using a Department-approved portable emission analyzer. This testing shall be done at six-month intervals, with the first such testing to be performed within 180 days of the date of issuance of this permit. A test report, containing the results of this

testing along with a description of the testing procedures used and copies of all calculations performed, shall be submitted to the Department within 30 days of the completion of each round of testing.

15. The company shall keep accurate, comprehensive records sufficient to demonstrate compliance with the RACT requirements contained herein. These shall include, at a minimum, documentation of what constitutes 'standard' ignition timing for engines #1 through #4 and generators GI and G2, records of hours of operation for generator G3, and the operating parameter records required for engines #8 through #12 by condition 25 below.
16. All engines, generators and combustion sources identified in condition 3 herein shall be fired only on pipeline quality natural gas.
18. The nitrogen oxides emissions from engine #8 shall not exceed 18.83 pounds per hour and the nonmethane hydrocarbon emissions shall not exceed 6.28 pounds per hour.
19. The company shall perform at least three nitrogen oxides stack tests upon engine #8 by no later than 7/31/97 and, thereafter, by no later than July 31 of every third year (2000, 2003, etc.). In each case, the stack testing shall be performed in accordance with all applicable requirements specified in Chapter 139 of the Article III of the Rules and Regulations of the Department of Environmental Protection while the engine is being operated in its most typical load range, and the results of the testing shall be submitted to the Department in the form of a test report within 60 days of the performance of the testing. Additionally, a pre-test protocol or plan shall be submitted to the Department for evaluation at least 45 days in advance of test performance, and the Department shall be given at least 14 days advance notice of the specific date upon which the testing is to be performed so that Department personnel can arrange to be present during testing.

20. The nitrogen oxides emissions from each of engines #9 and #10 shall not exceed 13.2 pounds per hour and the nonmethane hydrocarbon emissions shall not exceed 4.95 pounds per hour. Additionally, the combined nitrogen oxides emissions from both engines shall not exceed 83.3 tons per year and the combined nonmethane hydrocarbon emissions shall not exceed 31.2 tons per year.

22. The company shall perform at least three nitrogen oxides and three carbon monoxide stack tests upon each of engines #9 and #10 by no later than 7/31/97 and, thereafter, by no later than July 31 of every third year (2000, 2003, etc.). In each case, the stack testing shall be performed in accordance with all applicable requirements specified in Chapter 139 of Article III of the Rules and Regulations of the

Department of Environmental Protection while the engine is being operated in its most typical load range, and the results of the testing shall be submitted to the Department in the form of a test report within 60 days of the performance of the testing. Additionally, a pre-test protocol or plan shall be submitted to the Department for evaluation at least 45 days in advance of test performance, and the Department shall be given at least 14 days advance notice of the specific date upon which the testing is to be performed so that Department personnel can arrange to be present during testing.

23. The nitrogen oxides emissions from each of engines #11 and #12 shall not exceed 5.73 pounds per hour and the nonmethane hydrocarbon emissions shall not exceed 2.15 pounds per hour. Additionally, the combined nitrogen oxides emissions from both engines shall not exceed 50.2 tons per year and the combined nonmethane hydrocarbon emissions shall not exceed 18.8 tons per year.

24. The company shall perform at least three nitrogen oxides stack tests upon each of engines #11 and #12 by no later than 7/31/98 and, thereafter, by no later than July 31 of every third year (2001, 2004, etc.). In each case, the stack testing shall be performed in accordance with all applicable requirements specified in Chapter 139 of the Article III of the Rules and Regulations of the Department of Environmental Protection while the engine is being operated in its most typical load range, and the results of the testing shall be submitted to the Department in the form of a test report within 60 days of the performance of the testing. Additionally, a pre-test protocol or plan shall be submitted to the Department for evaluation at least 45 days in advance of test performance, and the Department shall be given at least 14 days advance notice of the specific date upon which the testing is to be performed so that Department personnel can arrange to be present during testing.

25. On any occasion that one or more of engines #8 through #12 is (are) being operated, the company shall record the engine RPM, spark position, developed torque, fuel manifold pressure, air manifold pressure and air manifold temperature for each such operating engine at least once per shift, and shall make this information available to the Department upon request. The company shall also maintain comprehensive accurate records of the number of hours that each of engines #8 through #12 is operated and shall make this information available to the Department upon request.

27. 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, or causes, permits or allows any modifications or removal of any air pollution control device required as a condition of this permit, then and in that event, this permit shall be suspended, and the permittee shall not thereafter continue to operate or use said air contamination source(s).

28. 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.

29. The operation of the aforementioned sources shall not at any time result in the emission of any air contaminant in excess of any limitation 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 or in excess of any limitation specified in any condition contained herein, nor otherwise result in noncompliance with the requirements specified in any condition contained herein.

30. The company shall, within one hour of discovery, notify the Department of any malfunction of the sources or associated air cleaning devices which results in, or may be resulting in, the emission of any air contaminant in excess of any limitation 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 or in excess of any limitation specified in any condition contained herein or which otherwise results in, or may possibly be resulting in, noncompliance with the requirements specified in any condition contained herein.

31. 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 8/1/2001.

    Additional annual operating permit administration fees may also be required pursuant to Section 127.703. If required, these fees are to be paid by no later than 8/31/97, 8/31/98, 8/31/99 and 8/31/2000. The administration fee is to be submitted with an Annual Operating Permit Administration Fee Transmittal form.

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

32. Any notification required as a result of any condition herein should be directed to: Steven Schulte, Air Quality Specialist, 105 Sherwood Street, Mansfield, PA 16933, telephone (717) 662-4066.

EPA

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR QUALITY

PLAN APPROVAL

Plan Approval No.:	PA-53-0009A	Source &	three natural gas-fired internal
Owner:	National Fuel Gas Supply Corporation	Air	combustion engines, as
		Cleaning	described in condition 2 herein
Address:	P.O. Box 2081	Device:	
	Erie, PA 16512		
Attn:	Mr. Gary A. Young	Location:	Ellisburg Compressor Station
			Allegany Twp., Potter County

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 05 1996 approved plans for the installation of air cleaning devices on the above indicated air contamination sources.

This **PLAN APPROVAL** expires _____

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
Mansfield
File

RECEIVED
Ozone Co & Mobile Sources
Section (3AP22)
JAN 29 1997
EPA, REGION III

PLAN APPROVAL CONDITIONS

APPROVAL NO. **PA-53-0009A**

COMPANY: National Fuel Gas Supply Corporation

2. 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 one 1,000 horsepower Ingersoll-Rand model #36KVS natural gas-fired internal combustion engine (designated engine #5) and two 2,000 horsepower Ingersoll-Rand model #512KVS natural gas-fired internal combustion engines (designated engines #6 and #7).

3. This plan approval is issued for the installation of low emission combustion (LEC) retrofit kits on the three engines identified in condition 2 herein. This plan approval is also issued for the modification of the respective engines, said modification consisting of a 19.38 ton per year increase in the engines' combined potential to emit volatile organic compounds.

5. Nothing contained in this plan approval authorizes an extension beyond the May 31, 1995 RACT compliance date specified in Section 129.91 of Chapter 129 of Article III of the Rules and Regulations of the Department of Environmental Protection.

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 (NOx, expressed as NOD emissions from engine #5 shall not exceed 8.8 pounds per hour at any time, and the volatile organic compound emissions from said engine shall not exceed 3.5 pounds per hour at any time, following the installation of the low emission combustion retrofit kit on said engine.

7. 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, expressed as NOD emissions from each of engines #6 and #7 shall not exceed 17.6 pounds per hour at any time, and the volatile organic compound emissions from each of said engines shall not exceed 7.0 pounds per hour at any time, following the installation of the low emission combustion retrofit kits on said engines.

PLAN APPROVAL CONDITIONS
APPROVAL NO. PA-53-0009A
COMPANY: National Fuel Gas Supply Corporation

10. Engines #5, #6 and #7 are not required to comply with the air contaminant emission limitations specified in conditions 6, 7, 8 and 9 herein during engine startup and shutdown provided that the duration of startup or shutdown does not exceed one hour per occurrence.

11. Each of these three engines shall be operated no more than 6,350 hours per calendar year.

12. Only pipeline quality natural gas shall be used as fuel in these engines.

13. Within 180 days of the issuance of this plan approval, and additionally sometime during the interval beginning 2.5 years after the issuance of an operating permit for the respective engines and ending 4.5 years after said issuance, the company shall perform reference-method nitrogen oxides, carbon monoxide and volatile organic compound stack testing upon each of the aforementioned engines. All testing is to be done while the engines are operating within 70% to 100% of rated torque and 300-300 rpm, using reference methods and procedures which are deemed acceptable by the Department.

14. At least 60 days prior to the scheduled performance of the testing required by condition 13 herein, the company shall submit a test protocol to the Department for evaluation. This protocol 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.

15. 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 13 herein so that Department personnel can arrange to be present.

16. Within 60 days of completion of the testing required by condition 13 herein, 2 copies of a test report shall be submitted to the Department. This report shall contain the results of the testing, a description of all testing and analytical procedures actually used, a copy of all pertinent engine operating parameters occurring during testing, a copy of all raw test data generated during the testing and a copy of all associated calculations. The test report shall specifically identify the horsepower and speed at which each engine was operated during each of the test runs.

17. In addition to the testing required by condition 13 herein, the company shall perform nitrogen oxides testing upon each of these three engines at six-month intervals using a Department-approved portable exhaust gas analyzer. The first such testing shall occur no more than six months after the completion of the initial testing required by condition 13 herein. Within 30 days of the completion of each round of this testing, a test report shall be

submitted to the Department. This report shall contain the results of the testing as well as a description of the test methods and procedures used and copies of all calculations performed.

18. The company shall maintain comprehensive, accurate records in accordance with Section 129.95 of Chapter 129 of Article III of the Rules and Regulations of the Department of Environmental Protection as follows: On any occasion that one or more of engines #5 through #7 is (are) being operated, the company shall record the engine RPM, spark position, developed torque, fuel manifold pressure, air manifold pressure and air manifold temperature for each such operating engine at least once per shift, and shall make this information available to the Department upon request. The company shall also maintain comprehensive accurate records of the number of hours that each of engines #5 through #7 is operated and shall make this information available to the Department upon request.

19. Issuance of an operating permit for these three engines is contingent upon a 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.