



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 6  
1445 ROSS AVENUE, SUITE 1200  
DALLAS, TX 75202-2733

OCT 11 1995

Ms. Leigh Gooding  
Environmental Specialist  
Williams Field Services  
Mail Stop 2G-1  
295 Chipeta Way  
Salt Lake City, UT 84158

RE: Permit NM-791-M2 - Williams Gas Processing -  
Los Mestenos Compressor Station - Jicarilla Apache  
Reservation

Dear Ms. Gooding:

On March 17, 1995, the Environmental Protection Agency received your application for a permit to operate the Los Mestenos compressor station located in Rio Arriba County, New Mexico, approximately 15 miles northwest of Gavilan, New Mexico. We have completed the review of the application. The enclosed permit, NM-791-M2, is your authorization to operate the compressor station under the conditions stipulated. The entire file is documented and available for review at our office at 1445 Ross Avenue, Dallas, Texas 75202.

Any person who filed comments on the draft permit, or participated in a public hearing for this permit, may petition the Administrator to review any condition of the permit decision. Any person who failed to file comments, or failed to participate in the public hearing on the draft permit, may petition for administrative review of the permit only to the extent of the changes from the draft to the final permit decision, if any (see 40 Code of Federal Regulations 124.19). The original and one copy of any petition for review must be filed within 30 days from the date this letter is received by the permittee. It should be addressed as follows:

Headquarters Hearing Clerk  
401 M Street Southwest  
Mail Code 1900  
U.S. Environmental Protection Agency  
Washington, DC 20460

If such a review is requested, the permit decision is not a final agency action, and the permit is not effective. A petition for review is, under 5 United States Code 704, a prerequisite to the seeking of judicial review of the final agency action.

If you have any questions concerning this permit, please contact Mr. Samuel R. Mitz of my staff at (214) 665-8370.

Sincerely yours,



Allyn M. Davis  
Director  
Multimedia Planning and  
Permitting Division

Enclosure

cc: President Leonard Atole  
Jicarilla Apache Tribe

Mr. Mark Weidler  
New Mexico Environment Department

Ms. Nancy Norem  
Public Service Company  
of New Mexico

AUTHORIZATION TO CONSTRUCT AND OPERATE A  
NEW OR MODIFIED FACILITY

In accordance with the provisions of the Clean Air Act, as amended, 42 U.S.C. 7475 and 40 CFR 52.21, as amended August 7, 1980,

Williams Gas Processing - Blanco Inc.  
P.O. Box 58900  
Salt Lake City, UT 84158

is authorized to install one 1200 horsepower Solar Saturn 1200 series (serial number SC-795681) natural gas fueled turbine, one 750 horsepower Caterpillar G-399 series (serial number 49-C-284) reciprocating engine, one 0.3 MMBtu/hr fuel gas heater, and one 0.3 MMBtu/hr heater at their Los Mestenos Compressor Station located 24 kilometers northwest of Gavilan, NM in

Rio Arriba County, New Mexico

subject to the emission limitations, monitoring requirements and other conditions set forth hereinafter, in the General and Special Conditions.

The permit shall be effective on \_\_\_\_\_ unless a petition to the Administrator for review of the permit is filed in accordance with the requirements of 40 CFR 124.19.

This permit and authorization to construct shall expire at midnight on \_\_\_\_\_ unless physical on-site construction has begun by such date or binding agreements or contractual obligations to undertake a program of construction of the source are entered into by such date.

Signed this 24th day of September, 1996.

Allyn M. Davis  
Allyn M. Davis  
Director  
Multimedia Planning and Permitting Division  
United States Environmental Protection Agency  
Region 6



## SPECIAL CONDITIONS

NM-791-M2

1. This permit covers only those sources of emissions listed in the attached table entitled "Table 1 - Maximum Allowable Emission Rates," and those sources are limited to the emission limits and other conditions specified in that attached table.
2. The Solar gas turbine (emission point #1) is subject to new source performance standards (NSPS), 40 CFR 60, Subpart A, General Provisions, and Subpart GG, Standards of Performance for Stationary Gas Turbines and shall comply with both the notification requirements in Subpart A and with the specific requirements of Subpart GG. In particular, the following emission limitations apply:
  - a. The nitrogen dioxide ( $\text{NO}_2$ ) concentration in the exhaust gas from the turbine shall not exceed 150 ppmv at 15 percent oxygen on a dry basis.
  - b. The sulfur dioxide concentration in the exhaust gas from the turbine shall not exceed 0.015 percent by volume at 15 percent oxygen ( $\text{O}_2$ ) and on a dry basis, or the fuel burned in the turbine shall not exceed 0.8 percent by weight.
3. Fuel fired in the turbine and internal combustion (IC) engine, identified as emission points #1 and #2 respectively, is limited to sweet natural gas of pipeline quality containing a maximum of 0.25 grains of  $\text{H}_2\text{S}$  per 100 cubic ft.
4. Emissions from the turbine and IC engine shall not exceed 5 percent opacity, as determined by EPA Reference Method 9.

### CONTINUOUS DETERMINATION OF COMPLIANCE

5. Compliance tests may be required by the permitting authority for nitrogen oxides ( $\text{NO}_x$ ) and sulfur dioxide ( $\text{SO}_2$ ) for the turbine to demonstrate compliance with NSPS Subpart GG for Special Condition 2. Compliance tests may also be required by the permitting authority to determine actual emission rates from any other point for which an emission test method is established.

When testing is required, the tests shall be conducted in accordance with EPA Reference Methods contained in the 40 CFR 60, Appendix A, and with the requirements of subpart A, General Provisions, 60.8(f). Tests shall be conducted within ninety (90) days of written notice from EPA that a test is required. The results of the  $\text{NO}_x$  tests shall be expressed as  $\text{NO}_2$  using a molecular weight of 46 lb/lb mole in all calculations (each ppm of  $\text{NO}/\text{NO}_2$  is equivalent to 1.194 lb/standard cubic foot).

For reciprocating engines, Method 7 (A-E) shall be used to determine  $\text{NO}_x$ , and Method 10 shall be used for CO. For stationary gas turbines, Method 20 shall be used to determine  $\text{NO}_x$ ,  $\text{SO}_2$ , and  $\text{O}_2$  concentrations, and method 10 shall be used for CO. Methods 1 through 4 shall be used for flow rate determinations as appropriate. To determine compliance with the applicable



Subpart GG, Section 60.332 and Section 60.333, the following tests shall be conducted in accordance with Subpart GG, Section 60.335 Test Methods and Procedures:

- a. NO<sub>x</sub> concentrations in the turbine stack gas shall be determined by EPA reference test Method 20. No allowance for fuel bound nitrogen shall be allowed in establishing the NO<sub>x</sub> emission limit for stationary gas turbines.
- b. The fuel sulfur content of the natural gas shall be determined by using one of the approved ASTM reference methods for the measurement of sulfur in gaseous fuels, or an approved alternative method. The reference methods are: ASTM D1072-80; ASTM D3031-81; ASTM D3246-81; and ASTM D4084-82 as referenced in 40 CFR 60.335.

The percent oxygen (O<sub>2</sub>) in the turbine stack gas shall be determined by using Method 20 specified in Appendix A of 40 CFR 60 for stationary gas turbines. For reciprocating engines, when Method 7 is used and when stack gas O<sub>2</sub> is less than three percent, a method of injecting O<sub>2</sub> into the sample flask must be used for the correct transformation of NO to NO<sub>2</sub> in the sample flasks.

The EPA shall be notified of the date and time of the compliance testing in accordance with General Condition 3 so EPA may have the opportunity to have an observer present during testing. The permittee shall arrange a pre-test meeting with EPA at least 45 days prior to the anticipated test date and shall observe the following pretesting and testing procedures:

- a. The permittee shall provide for EPA's approval a written test protocol at least one (1) week prior to the anticipated pre-test meeting date. The protocol shall describe the test methods to be used (including sampling methods and calibration procedures), shall list the equipment or devices to be tested (including sample locations), and shall describe data reduction procedures. Any variation from established sampling and analytical procedures or from facility operating conditions shall be presented for EPA approval.
- b. Sample ports of a size compatible with the tests methods shall be located on the stack of each engine/turbine or other source in accordance with the provisions of EPA Method 1 of 40 CFR 60, Appendix A. The stack shall be of sufficient height and diameter so that a representative test of the emissions can be performed in accordance with EPA Method 1. The permittee shall also provide a one-quarter (1/4) inch stainless steel sampling line adjacent to the sampling ports and extending down to within four (4) feet above ground level to provide access for future audits. The line shall extend into the stack a distance of 1/4 the stack diameter, but not less than one inch from the stack wall. The sampling line shall be maintained clear of blockage at all times.
- c. During any engine/turbine compliance tests, the engine/turbine compressor RPM, fuel consumption, suction and discharge pressures (including exhaust static pressure), suction volume, and horsepower output shall be monitored and recorded. This



information shall be included with the test report that is required to be furnished to EPA. The tests shall be conducted at each of the load conditions specified in 40 CFR 60.335(c)(2), and all loads shall be corrected to ISO conditions using the appropriate equations supplied by the turbine manufacturer. Reciprocating engine tests shall be conducted at 90 percent of full load or greater, and additional loads as specified by EPA personnel at the time of tests or pre-test meeting.

- d. Where necessary to prevent cyclonic flow in the stack, flow straighteners shall be installed.
  - e. The compliance test report shall be submitted to EPA within the timeframes specified in General Condition 3. The report shall be sent to the address listed in General Condition 9.
6. Williams Gas Processing shall comply with all applicable NSPS monitoring, recordkeeping, and reporting requirements as specified in 40 CFR 60.334 - Monitoring of Operations. In particular, the following conditions apply:
- a. The sulfur content of the fuel being burned in the turbine shall be determined and recorded daily. Williams Field Service may develop a custom schedule for determination of these values and apply to EPA for approval of this schedule. Upon approval, this schedule will become part of this permit.
  - b. In accordance with EPA document EMTIC GD-009 (March 12, 1990), no daily monitoring for fuel bound nitrogen is required for this turbine.

#### RECORDKEEPING REQUIREMENTS

7. In addition to recordkeeping requirements in General Condition 4, the following information shall be maintained in a file by the holder of this permit for a period of two years and shall be made available on request to representatives of EPA:
- a. The results of all stack tests conducted pursuant to Special Condition 5.
  - b. The results of all fuel sampling conducted pursuant to Special Condition 6.

#### REPORTING

8. An annual report shall be submitted to the EPA Region 6 Office (address in General Condition 9) by the holder of this permit. The report will contain the hours of operation of the facility, the calculated annual emissions for the pollutants listed in Table 1, and a summary of the periods of noncompliance. The report will be submitted to the EPA Region 6 Office by April 1 for the previous calendar year's emissions.

## GENERAL CONDITIONS

1. The permittee shall notify the permitting authority in writing of the beginning of construction of the permitted source within 30 days of such action and the estimated date of start-up of operation.
2. The permittee shall notify the permitting authority in writing of the actual start-up of the permitted source within 30 days of such action and the estimated date of demonstration of compliance as required in the specific conditions.
3. Each emission point for which an emission test method is established in this permit shall be tested in order to determine compliance with the emission limitations contained herein when required by the permitting authority. The permittee shall notify the permitting authority of the scheduled date of compliance testing at least thirty (30) days in advance of such test. Compliance test results shall be submitted to the permitting authority within sixty (60) days after the complete testing. The permittee shall provide: (1) sampling ports adequate for test methods applicable to such facility; (2) safe sampling platforms; (3) safe access to sampling platforms; and (4) utilities for sampling and testing equipment.
4. The permittee shall retain records of all information resulting from monitoring activities and information indicating operating parameters as specified in the specific conditions of this permit for a minimum of two (2) years from the date of recording.
5. If, for any reason, the permittee does not comply with or will not be able to comply with the emission limitations specified in this permit, the permittee shall provide the permitting authority with the following information in writing within five (5) days of such conditions:
  - a. description of noncomplying emission(s);
  - b. cause of noncompliance;
  - c. anticipated time the noncompliance is expected to continue or, if corrected, the duration of the period of noncompliance;
  - d. steps taken by the permittee to reduce and eliminate the noncomplying emission; and
  - e. steps taken by the permittee to prevent recurrence of the noncomplying emission.

Failure to provide the above information when appropriate shall constitute a violation of the terms and conditions of this permit. Submittal of this report does not constitute a waiver of the emission limitations contained within this permit.



6. Any change in the information submitted in the application regarding facility emissions or changes in the quantity or quality of materials processed that will result in new or increased emissions must be reported to the permitting authority. If appropriate, modifications to the permit may then be made by the permitting authority to reflect any necessary changes in the permit conditions. In no case are any new or increased emissions allowed that will cause violation of the emission limitations specified herein, prior to receiving approval for such new or increased emissions from the permitting authority.
7. In the event of any change in control or ownership of the source described in this permit, the permittee shall notify the succeeding owner of the existence of this permit by letter and forward a copy of such letter to the permitting authority.
8. The permittee shall allow representatives of the State environmental control agency or representatives of the Environmental Protection Agency, upon the presentation of credentials at reasonable times:
  - a. to enter upon the permittee's premises, or other premises under the control of the permittee, where an air pollutant source is located or in which any records are required to be kept under the terms and conditions of the permit;
  - b. to have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit, or the Act;
  - c. to inspect at reasonable times any monitoring equipment or monitoring method required in this permit;
  - d. to sample at reasonable times any emission of pollutants; and
  - e. to perform at reasonable times an operation and maintenance inspection of the permitted source.
9. All correspondence required to be submitted by this permit to the permitting agency shall be mailed to the:

Director, Compliance Assurance and Enforcement Division  
Environmental Protection Agency  
Region 6  
First Interstate Bank Building  
1445 Ross Avenue  
Dallas, Texas 75202-2733
10. The conditions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.
11. The emission of any pollutant more frequently or at a level in excess of that authorized by this permit shall constitute a violation of the terms and conditions of this permit.



Table 1 - Maximum Allowable Emission Rates

Emission Point Number	Emission Point Number	Hours of Operation (hr/yr)	NO <sub>x</sub>	CO	VOCs
1	Solar Saturn 1200 Turbine 1200 HP	8760	4.4 lb/hr 19.4 tpy	2.6 lb/hr 11.4 tpy	0.09 lb/hr 0.4 tpy
2	Caterpillar Model G-399-TA IC engine 750 HP	8760	14.4 lb/hr 63.1 tpy	52.2 lb/hr 228.0 tpy	0.6 lb/hr 2.6 tpy
3	Fuel Gas Heater 0.3 MMBtu/hr	8760	0.04 lb/hr 0.18 tpy	0.0084 lb/hr 0.04 tpy	0.0015 lb/hr 0.0067 tpy
4	Heater 0.3 MMBtu/hr	8760	0.04 lb/hr 0.18 tpy	0.0084 lb/hr 0.04 tpy	0.0015 lb/hr 0.0067
Total	-	-	18.9 lb/hr 82.9 tpy	54.8 lb/hr 239.5 tpy	0.7 lb/hr 3.0 tpy

VOCs = Volatile Organic Compounds  
 lb/hr = pound per hour  
 tpy = ton per year



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 6  
1445 ROSS AVENUE, SUITE 1200  
DALLAS, TX 75202-2733

AUG 19 1997

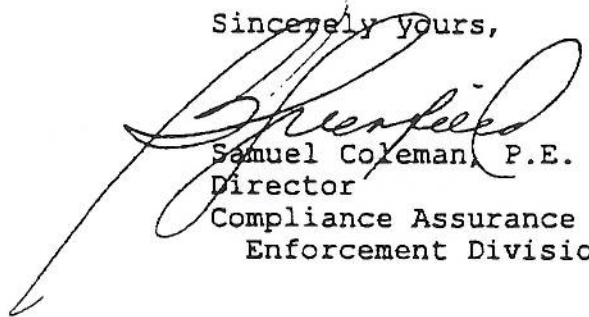
Ingrid Deklau  
Environmental Specialist  
Williams Energy Group  
295 Chipeta Way  
Salt Lake City, UT 84108

Dear Ms. Deklau:

Pursuant to 40 CFR § 60.334 (b)(2), the Environmental Protection Agency (EPA) has completed its review of your request dated July 8, 1997, along with the additional data supplied for a Custom Fuel Monitoring Schedule (CFMS) for the Solar Saturn 1200 turbine of Williams Energy Group at Williams Gas Processing-Blanco's Los Mestenos Compressor Station located in Rio Arriba County, New Mexico. Your request for a CFMS is approved and is effective on the date of this letter. We are also approving the use of the data supplied to satisfy the requirements of the Phase I sampling. Therefore, you may begin the CFMS at the Phase II "monthly" sampling frequency. Please note that the "length of stain tube" test method for sulfur has been added to the CFMS as an alternative testing option providing that the Gas Processors Association Standard 2377-86 is followed.

After the completion of each phase of the CFMS, please send EPA and the New Mexico Environment Department (NMED) a copy of your laboratory fuel sulfur content test results to ensure compliance with the terms of the CFMS and New Source Performance Standards (NSPS) Subpart GG (i.e., Phase II, 18 Months, Phase III, 2 Years). If you have any questions or need additional information, please contact Mr. Peter Goerdel or Ed Guice, of my staff, at (214) 665-7294 or (214) 665-7554.

Sincerely yours,

  
Samuel Coleman, P.E.  
Director  
Compliance Assurance and  
Enforcement Division

Enclosure

cc: Ms. Cecilia Williams w/enclosure  
Mr. Vince Vigil, NMED  
~~Mr. Richard Duarte, EPNG w/enclosure~~ typs as per E. Guice



ENCLOSURE I  
CFMS for Williams Enery Group's Williams Gas Processing-  
Blanco's Los Mestenos Compressor Station  
located in Rio Arriba County, New Mexico

The following CFMS is approved as an alternative to the monitoring requirements contained in § 60.334 (b) (2).

1. Nitrogen Monitoring

- a. Monitoring of fuel nitrogen content shall not be required while pipeline-quality natural gas is the only fuel fired in the gas turbine.
- b. Monitoring of fuel nitrogen content shall be determined and recorded daily while firing a fuel other than pipeline-quality natural gas or while firing an emergency fuel as defined in 40 CFR § 60.331 (r).
- c. Should a nitrogen analysis, required for any reason other than firing an emergency fuel, demonstrate noncompliance with 40 CFR § 60.332, then the owner or operator shall immediately notify the New Mexico Environment Department (NMED) and Environmental Protection Agency (EPA) of the excess emissions, and the CFMS shall be re-examined by NMED and EPA. Nitrogen monitoring shall be conducted daily during the interim period when this CFMS is being re-examined.
- d. If there is a change in fuel supply, the owner or operator must immediately notify NMED and EPA of such change for re-examination of this CFMS. A change in fuel quality, fuel makeup or fuel supplier shall be considered as a change in fuel supply. Nitrogen monitoring shall be conducted daily during the interim period when this CFMS is being re-examined.

2. Sulfur Monitoring

- a. Analysis for fuel Sulfur content of the gas turbine fuel (natural gas or any other type of fuel) shall be conducted using the appropriate methods specified in 40 CFR § 60.335 (d).
- b. The "length of stain tube" method is approved as an alternative fuel Sulfur test method for this CFMS, providing that the Gas Processors Association (GPA) procedures are followed and 100% pipeline-quality natural gas is the only fuel fired in the gas turbines. (GPA Standard 2377-86)

- c. Monitoring of fuel Sulfur content shall be determined and recorded daily while firing an emergency fuel as defined in 40 CFR § 60.331 (r). Effective the date of this CFMS, the sampling and analysis frequency for fuel sulfur allowed under this CFMS fuel schedule is as follows:

<u>PHASE</u>	<u>FREQUENCY</u>	<u>PERIOD</u>
I	Biweekly <sup>1</sup>	Six Months
II	Quarterly	Eighteen Months
III	Semiannually	Two Years <sup>2</sup>

If, during the period of each phase, this monitoring shows little variability in the fuel sulfur content and demonstrates continuous compliance with the emission limits for Sulfur Dioxide contained in 40 CFR § 60.333, the company may then proceed to the next sampling phase and provide the test results for the previous phase with written notice to NMED and EPA.

- d. Should a sulfur analysis, required for any reason other than for firing emergency fuel, demonstrate non-compliance with the emission limits for Sulfur Dioxide contained in 40 CFR § 60.333, the owner or operator shall immediately notify NMED and EPA of such excess emissions and sulfur monitoring shall be conducted daily during the interim period while this CFMS is being re-examined.
- e. If there is a change in fuel supply, the owner or operator must notify NMED and EPA of such change for re-examination of this CFMS. A change in fuel quality, fuel makeup or fuel supplier shall be considered as a change in fuel supply. Sulfur monitoring shall be conducted daily during the interim period when this CFMS is being re-examined.

### 3. General

- a. Approval of this CFMS is based on the application submitted by the company, dated July 8, 1997, and the additional information supplied for the firing of 100% pipeline-quality natural gas. Any change in any

<sup>1</sup> Biweekly means once every other week.

<sup>2</sup> This monitoring shall be conducted during the first and third quarters of each calendar year.



representation made by the company in this application shall cause this CFMS to be suspended and re-examined by NMED or EPA. NMED and EPA shall be notified immediately if any such change occurs.

- b. All analyses required by this custom schedule shall be performed by a laboratory using the approved test methods.
- c. The company may request that EPA allow for the substitution of any analytical method for another method specified in this CFMS. Any substitution will require the written approval of EPA.
- d. NMED and EPA may request that an audit of the fuel sampling program be conducted at any time during the life of this custom schedule. This audit shall consist of daily sampling of the fuel gas for either nitrogen content, sulfur content, or both. The length of this audit shall be no less than two weeks. If noncompliance values are found, paragraphs 1(c) and/or 2(d) shall govern.
- e. Records of sample analysis, fuel supplier, fuel supply, fuel quality, and fuel make-up pertinent to this custom schedule shall be retained for a period of two years, and be made available for inspection by personnel of federal, state, and local air pollution control agencies.
- f. After the initial four year term of the CFMS, the custom schedule will continue using the same monitoring, recordkeeping and notification requirements as stipulated in Phase III of the schedule. However, NMED OR EPA can choose to terminate the CFMS and require the company to reapply for a CFMS. Termination of the CFMS will require that the company begin sampling as required by 40 CFR §60.334.
- g. Date of issuance AUG 19 1997.