United States Environmental Protection Agency
Region 8
Air Program
1595 Wynkoop Street
Denver, CO 80202

AIR POLLUTION CONTROL
TITLE V PERMIT TO OPERATE

In accordance with the provisions of Title V of the Clean Air Act and 40 CFR Part 71 and applicable rules and regulations,

BP America Production Company
Florida River Compression Facility

is authorized to operate air emission units and to conduct other air pollutant emitting activities in accordance with the permit conditions listed in this permit.

This source is authorized to operate at the following location:

Southern Ute Indian Reservation
SE ¼ , SW ¼ of Section 25, Township 34N, Range 9W
La Plata County, Colorado

Terms not otherwise defined in this permit have the meaning assigned to them in the referenced regulations. All terms and conditions of the permit are enforceable by EPA and citizens under the Clean Air Act.

Carl Daly, Director
Air Program
US EPA Region 8

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AIR POLLUTION CONTROL
TITLE V PERMIT TO OPERATE

BP America Production Company
Florida River Compression Facility

Permit Number: V-SU-000022-2005.01
Replaces Permit No.: V-SU-0022-05.00

Issue Date: November 15, 2011
Effective Date: November 15, 2011
Expiration Date: November 27, 2015

The permit number cited above should be referenced in future correspondence regarding this facility.

Permit Revision History

DATE OF REVISION	TYPE OF REVISION	SECTION NUMBER, CONDITION NUMBER	DESCRIPTION OF REVISION
June 2001	Initial Permit Issued		Permit # V-SU-0022-00.00 (revised 4 times)
October 2010	1st Renewal Issued		Permit # V-SU-0022-05.00
October 2011	Minor Modification		Permit #V-SU-000022-2005.01
		III. Requested NO_X Emission CAP for Electric Generator Engine Project	Removed the project-wide NO_X emission limit and associated requirements for 12 generators that have been removed from the facility.
		IV.E. Alternative Operating Scenario – Diesel Fired Electric Generating Unit Replacement/Overhaul	Removed the alternative operating scenario for 12 generators that have been removed from the facility.

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Abbreviations and Acronyms

AR	Acid rain
ARP	Acid Rain Program
bbls	Barrels
BACT	Best Available Control Technology
CAA	Clean Air Act [42 U.S.C. Section 7401 et seq.]
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
CMS	Continuous Monitoring System (includes COMS, CEMS and diluent monitoring)
COMS	Continuous Opacity Monitoring System
CO	Carbon monoxide
CO_2	Carbon dioxide
DAHS	Data acquisition and handling system
dscf	Dry standard cubic foot
dscm	Dry standard cubic meter
EIP	Economic Incentives Programs
EPA	Environmental Protection Agency
FGD	Flue Gas Desulfurization
gal	Gallon
GPM	Gallons per minute
H2S	Hydrogen sulfide
HAP	Hazardous Air Pollutant
hr	Hour
Id. No.	Identification number
kg	Kilogram
lb	Pound
MACT	Maximum Achievable Control Technology
MDEA	Methyl-di-ethanol-amine
MVAC	Motor Vehicle Air Conditioner
Mg	Megagram
MMBtu	Million British thermal units
MMScfd	Million standard cubic feet per day
mo	Month
NESHAP	National Emission Standards for Hazardous Air Pollutants
NMHC	Non-methane hydrocarbons
NO_x	Nitrogen oxides
NSPS	New Source Performance Standard
NSR	New Source Review
pH	Negative logarithm of effective hydrogen ion concentration (acidity)
PM	Particulate matter
$PM_{2.5}$	Particulate matter less than 2.5 microns in diameter
PM_{10}	Particulate matter less than 10 microns in diameter
ppm	Parts per million
PSD	Prevention of Significant Deterioration
PTE	Potential to emit
psi	Pounds per square inch
psia	Pounds per square inch absolute
RICE	Reciprocating Internal Combustion Engine
RMP	Risk Management Plan
scfm	Standard cubic feet per minute
SNAP	Significant New Alternatives Program
SO_2	Sulfur dioxide
TEG	Tri-ethylene glycol
tpy	Ton per year
US EPA	United States Environmental Protection Agency
VOC	Volatile Organic Compounds

I. Source Information and Emission Unit Identification

I.A. General Source Information

Parent Company name: BP America Production Company

Plant Name: Florida River Compression Facility

Plant Location: SE 1/4, SW1/4 of Section 25, T34N, R9W
Latitude 37°09'23.0"N Longitude -107°46'50.0"W

Region: 8 **State:** Colorado **County:** La Plata

Reservation: Southern Ute Reservation **Tribe:** Southern Ute Indian Tribe

Responsible Official: Deputy Onshore Site Manager

Alternate Responsible Official: Onshore Site Manager

SIC Code: 1311

AFS Plant Identification Number: 08-067-00034

Other Clean Air Act Permits: There are no other permits, such as PSD or minor NSR, issued to this facility.

Description of Process:

The Florida River Compression Facility treats coal bed methane gas in order to reduce CO_2 and water content to within pipeline specifications, and then compresses this gas for delivery into interstate pipelines. The plant has 4 medium pressure gas inlets (Area 6, ECBM, MPP, Red Cedar) and 2 low pressure gas inlets (Area 1 East, Area West). Current plant throughput averages around 380 MMscfd with plant process capacity around 400 MMscfd. The treated and compressed gas is sent to El Paso, Transwestern or Northwest Pipeline for transport to market via interstate pipeline.

The treating processes include 2 amine treatment trains used to remove CO_2 and 3 dehydration units. Post treatment compression consists of electric driven centrifugal compressors, and natural gas fired turbine driven centrifugal compressors.

The plant is equipped with a ground flare "candle" system to combust gases that for various reasons cannot be sent to market. The flare system disposes of a minimum of about 100,000 scfd, but is designed to handle the full inlet for a very brief time in an emergency or plant upset situations.

Current pigging operations include 4 receivers with varying diameters: two 16 inch, two 12 inch, one 10 inch, and one 8 inch, each about 6 feet long and operated at about 50 psi. Pigging operations occur once per month on average, totaling about 322 cubic feet at 50 psi.

I.B. Source Emission Points

Table 1 - Source Emission Points
BP Florida River Compression Facility

Emission Unit Id. No.	Description	Control Equipment
T-1	45 MMBtu/hr Solar Centaur H T5500 Turbine. Natural gas fired, simple cycle: Serial Number: HC90781 Installed: 1995	None
T-2	45 MMBtu/hr Solar Centaur H T5700 Turbine. Natural gas fired, simple cycle: Serial Number: HC93D50 Installed: 08/1999	None
AH-1	44.5 MMBtu/hr Amine Heater #1. Natural gas fired: Serial Number: 421 Installed: 1990 (Const. 5/30/1989)	None
AH-2	44.0 MMBtu/hr Amine Heater #2. Natural gas fired: Serial Number: 2440 Installed: 1997 (Const. 1980)	None
AV-1	70 MMscfd Amine Unit #1 Still Vent: Serial Number: NA Installed: 1990	None
Plant Flare	4 MMBtu/hr pilot, 0.1 – 400 MMscfd; 98% VOC control efficiency Disposes of a minimum of 100,000 scf/d. VECO Custom Ground Flare Installed: 1/2004	None

Table 2 - Insignificant Emission Units
BP Florida River Compression Facility

Description
1 - 99 hp Emergency Diesel Generator (DMT Corporation, Model DMT-80C. Serial No. 89411-2)
1 - 70 MMscfd Amine Unit #2 Vent
1 - Amine #2 Flash Tank
1 - 2.5 MMBTU/hr Dehy Reboiler #1a
1 - 2.5 MMBTU/hr Dehy Reboiler #1b
1 - 2.5 MMBTU/hr Dehy Reboiler #2
1 - 2.14 MMBTU/hr Dehy Reboiler #3a
1 - 2.14 MMBTU/hr Dehy Reboiler #3b
1 - Dehy #1 Flash Tank
1 - Dehy #2 Flash Tank
1 - Dehy #3 Flash Tank
1 - 90 MMscfd Glycol Still Column Vent #1
1 - 35 MMscfd Glycol Still Column Vent #2
1 - 180 MMscfd Glycol Still Column Vent #3
Process Fugitive Emissions
1 - 1,000 gal Gasoline Tank
1 - 250 bbl MDEA Tank
1 - 300 bbl EG Tank
1 - 1,500 gal EG Tank
1 - 100 bbl TEG Tank
1 - 12,000 gal Diesel Fuel Tank
1 - 100 gal Diesel Fuel Tank
2 - 300 gal Diesel Tanks
4 - 2,400 gal Peaker Diesel Fuel Tanks
8 - 3,200 gal Peaker Diesel Fuel Tanks
1 - 300 bbl Waste Oil Tank
1 - 210 bbl Lube Oil Tank
1 - 100 bbl Oily Water Tank
3 - 550 gal Lube Oil Tanks
4 - 500 gal Lube Oil Tanks
1 - 238 gal Compressor Lube Oil Drain and Sump
6 - 55 gal Lube Oil Tanks

II. Requirements for Turbines

II.A. 40 CFR Part 60, Subpart A – New Source Performance Standards, General Provisions [40 CFR Part 60, Subpart A]

This facility is subject to the requirements of 40 CFR Part 60. Notwithstanding conditions in this permit, the permittee shall comply with all applicable requirements of 40 CFR Part 60, Subpart A.

II.B. 40 CFR Part 60, Subpart GG - Standards of Performance for Stationary Combustion Turbines [40 CFR 60.330 – 60.335]

1. This facility is subject to the requirements of 40 CFR Part 60, Subpart GG. Notwithstanding conditions in this permit, the permittee shall comply with all applicable requirements of 40 CFR Part 60, Subpart GG.

2. 40 CFR Part 60, Subpart GG applies to the following emission units:

   T-1: Natural gas-fired simple cycle turbine with a heat input capacity of 45 MMBtu/hr.
   T-2: Natural gas-fired simple cycle turbine with a heat input capacity of 45 MMBtu/hr.

[40 CFR 60.330]

II.C. Emission Standards and Limits [40 CFR 60.332 and 60.333; 40 CFR 71.6(a)(1), 71.6(a)(1)(i), and 71.6(a)(1)(iii)]

Emission units T-1 and T-2 are subject to the NO_x standard and the SO_2 fuel standard listed in Table 3 below.

Table 3 - Turbine Emission Standards

Pollutant	Emission Standard	Regulatory Reference
NO_x	$STD = 0.0150\frac{(14.4)}{Y} + F = 174$ ppm where Y= 12.4 kilojoules per watt hour (manufacturer's rated heat rate at manufacturer's rated peak load) and F = 0 (NO_x emission allowance for fuel bound nitrogen) and STD = allowable NO_x emissions (percent by volume at 15 percent oxygen and on a dry basis)	40 CFR 60.332(a)(2)
SO_2	Fuel sulfur content shall not exceed 0.8 percent by weight	40 CFR 60.333(b)

II.D. Monitoring Requirements [40 CFR 60.334 and 40 CFR 71.6(a)(3)(i)(A) through (C)]

1. The permittee shall measure NO_x emissions from emission units T-1 and T-2 at least once every quarter to show compliance with the requirements of 40 CFR 60.332(a)(2). To meet this requirement, the permittee shall measure the NO_x emissions from the turbine using a portable analyzer and a monitoring protocol approved by EPA. Such monitoring shall begin in the first calendar quarter following EPA notification to the applicant of the approval of the monitoring protocol. EPA approved the monitoring protocol in a May 6, 2002 letter.

2. The permittee shall comply with the requirements of 40 CFR 60.334(b)(2) for monitoring of sulfur content and nitrogen content of the fuel being burned in units T-1 and T-2. For sulfur dioxide and nitrogen oxides, the custom fuel monitoring schedule as approved by the EPA in a letter dated December 2, 1996, shall be followed.

   (a) Fuel Nitrogen Monitoring Protocol.

      (i) Monitoring of fuel nitrogen content shall not be required while natural gas is the only fuel fired in the turbine.
      (ii) Monitoring of fuel nitrogen content shall be determined 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).
      (iii) Should a nitrogen analysis, required for any reason other than firing an emergency fuel, demonstrate noncompliance with the emission standard for NO_x contained in 40 CFR 60.332, the permittee shall immediately notify EPA Region 8 of the excess emissions and nitrogen monitoring shall be conducted daily during the interim period while the custom fuel monitoring schedule is being re-examined by EPA Region 8.

   (b) Fuel Sulfur Monitoring Protocol.

      Analysis for fuel sulfur content of the natural gas shall be conducted using the appropriate methods specified in 40 CFR 60.335(d); or for Phase I sampling the permittee's GC monitoring system may be used; and under Phase II and III, the "length of stain tube" method is approved as an alternative fuel sulfur test method, providing that the Gas Processors Association procedures (GPA Standard 2377-86) are followed and 100% pipeline quality natural gas is the only fuel fired in the gas turbines.

      (i) The sampling and analysis frequency of fuel sulfur allowed under the custom fuel monitoring schedule is as follows:

Phase	Frequency	Technique	Period
I	Daily	El Paso GC data	6 months
II	Quarterly	Length of stain tube	18 months
III	Semi-annually	Length of stain tube	2 years

      (ii) If, during the period of each phase, the monitoring required above shows little variability in the fuel sulfur content and demonstrates compliance with the

emission limits for SO_2 contained in 40 CFR 60.333, the permittee may then proceed to the next sampling phase with written notice to EPA Region 8.

(iii) Monitoring of fuel sulfur content shall be determined daily while firing an emergency fuel as defined in 40 CFR 60.331(r).

(iv) Should a sulfur analysis, required for any reason other than for firing emergency fuel, demonstrate noncompliance with the emission standard for SO_2 contained in 40 CFR 60.333, the permittee shall immediately notify EPA Region 8 of the excess emissions and sulfur monitoring shall be conducted daily during the interim period while the custom fuel monitoring schedule is being re-examined by EPA Region 8.

3. After the initial 4 year term of the custom fuel monitoring schedule, the permittee will continue using the same monitoring requirements as stipulated in Phase III of the schedule in this section of this permit. EPA Region 8 may choose to terminate the custom fuel monitoring schedule and require the permittee to reapply for a custom fuel monitoring schedule. Termination of the custom fuel monitoring schedule will require that the permittee begin monitoring as required by 40 CFR 60.334.

4. If there is a change in fuel supply, the permittee must immediately notify EPA Region 8 of such change for re-examination of this custom fuel monitoring schedule. A change in fuel quality, fuel makeup or fuel supplier shall be considered as a change in fuel supply. Sulfur and nitrogen monitoring shall be conducted daily during the interim period when this custom fuel monitoring schedule is being re-examined.

5. All analyses required by this custom fuel monitoring schedule shall be performed by a laboratory using the approved test methods, except for Phase I testing using the permittee's GC and Phases II and III using the length of stain tube. The permittee may request that EPA Region 8 allow for the substitution of any analytical method for another method specified in this custom fuel monitoring schedule. Any substitution will require the written approval of EPA Region 8.

6. EPA Region 8 may request that an audit of the fuel sampling program be conducted at any time during the life of this custom fuel monitoring schedule. This audit shall consist of daily sampling of fuel gas for either nitrogen content, sulfur content, or both. The length of this audit shall be no less than 2 weeks. If noncompliance values are found, D.2(a)(iii) of this section shall govern nitrogen content monitoring and D.2(b)(iv) of this section shall govern sulfur content monitoring.

II.E. <u>Recordkeeping Requirements</u> [40 CFR 71.6(a)(3)(ii), 40 CFR 60.7(b) and 60.7(f), and custom fuel monitoring schedule as approved by EPA in a letter dated December 2, 1996 (see Section V.B of this permit)]

The permittee shall comply with the following recordkeeping requirements for turbine units T-1 and T-2:

1. The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

2. The permittee shall maintain a file of all measurements, including performance testing measurements, monitoring device calibration checks, and other information required by the NSPS.

3. The permittee shall keep records of all required monitoring in this permit. The records shall include the following:

   (a) The date, place, and time of sampling or measurements;

   (b) The date(s) analyses were performed;

   (c) The company or entity that performed the analyses;

   (d) The analytical techniques or methods used;

   (e) The results of such analyses; and

   (f) The operating conditions as existing at the time of sampling or measurement.

4. The permittee shall comply with the following recordkeeping requirements when firing an emergency fuel in turbines T-1 and T-2:

   (a) Monitoring of fuel sulfur content shall be recorded daily while firing an emergency fuel as defined in 40 CFR 60.331(r).

   (b) For turbines T-1 and T-2, monitoring of fuel nitrogen content shall be recorded daily while firing a fuel other than pipeline-quality natural gas.

   (c) Monitoring of fuel nitrogen content shall be recorded daily while firing an emergency fuel as defined in 40 CFR 60.331(r).

5. The permittee shall retain records of all required monitoring data and support information, sample analyses, fuel supplier, fuel quality, and fuel make-up pertinent to the custom fuel monitoring schedule for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. These records shall be made available upon request by EPA. Support information includes all calibration and maintenance records, all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

[40 CFR 60.774(d)(1)]

III. Facility-Wide Requirements

Conditions in this section of the permit apply to all emissions units located at the facility, including any units not specifically listed in this permit.

[40 CFR 71.6(a)(1)]

III.A. General Recordkeeping Requirements [40 CFR 71.6(a)(3)(ii)]

The permittee shall comply with the following generally applicable recordkeeping requirements:

1. If the permittee determines that his or her stationary source that emits (or has the potential to emit, without federally recognized controls) 1 or more hazardous air pollutants (HAPs) is not subject to a relevant standard or other requirement established under 40 CFR Part 63, the permittee shall keep a record of the applicability determination at the Operations Center for a period of 5 years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination shall include an analysis (or other information) that demonstrates why the permittee believes the source is unaffected (e.g., because the source is an area source).

   [40 CFR 63.10(b)(3)]

2. The permittee is an owner or operator of glycol dehydration units that are exempt from the control requirements under §63.764(e)(1). The permittee shall retain the GRI-GLYCalc determination used to demonstrate that actual average benzene emissions are below 1 tpy for each unit.

   [40 CFR 63.774(d)(1)]

3. Records shall be kept of off permit changes made in accordance with the approved Alternative Operating Scenarios in this permit.

III.B General Reporting Requirements [40 CFR 71.6(a)(3)(iii)]

1. The permittee shall submit to EPA reports of any monitoring results and recordkeeping required under this permit semi-annually by April 1st and October 1st of each year. The report due on April 1st shall cover the prior 6 month period from July 1st through the end of December. The report due on October 1st shall cover the prior 6 month period from January 1st through the end of June. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official.

   [Explanatory note: To help Part 71 permittees meet reporting responsibilities, EPA has developed a form "SIXMON" for 6 month monitoring reports. The form may be found on the EPA website at: http://www.epa.gov/air/oaqps/permits/p71forms.html]

2. "Deviation," means any situation in which an emissions unit fails to meet a permit term or condition. A deviation is not always a violation. A deviation can be determined by observation or through review of data obtained from any testing, monitoring, or recordkeeping established in accordance with §71.6(a)(3)(i) and (a)(3)(ii). For a situation lasting more than 24 hours which constitutes a deviation, each 24 hour period is considered a separate deviation. Included in the meaning of deviation are any of the following:

(a) A situation where emissions exceed an emission limitation or standard;

(b) A situation where process or emissions control device parameter values indicate that an emission limitation or standard has not been met;

(c) A situation in which observations or data collected demonstrates noncompliance with an emission limitation or standard or any work practice or operating condition required by the permit; or

(d) A situation in which an exceedance or an excursion, as defined in 40 CFR Part 64 occurs.

3. The permittee shall promptly report to EPA deviations from permit requirements, including those attributable to upset conditions as defined in this permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. "Prompt" is defined as follows:

(a) Any definition of "prompt" or a specific timeframe for reporting deviations provided in an underlying applicable requirement as identified in this permit;

(b) Where the underlying applicable requirement fails to address the time frame for reporting deviations, reports of deviations will be submitted based on the following schedule:

(i) For emissions of a HAPs or a toxic air pollutant(as identified in the applicable regulation) that continue for more than 1 hour in excess of permit requirements, the report must be made within 24 hours of the occurrence.
(ii) For emissions of any regulated air pollutant, excluding a HAP or a toxic air pollutant that continue for more than 2 hours in excess of permit requirements, the report must be made within 48 hours.
(iii) For all other deviations from permit requirements, the report shall be submitted with the semi-annual monitoring report.

4. If any of the conditions in III.B.3(b)(i) - (ii) are met, the source must notify EPA by telephone (1-800-227-8917) or facsimile (303-312-6064) based on the timetables listed above. *[Notification by telephone or fax must specify that this notification is a deviation report for a Part 71 permit.]* A written notice, of this permit must be submitted within 10 working days of the occurrence. All deviations reported under this section must also be identified in the 6-month report required under permit.

[Explanatory note: To help Part 71 permittees meet reporting responsibilities, EPA has developed a form "PDR" for prompt deviation reporting. The form may be found on the EPA website at: http://www.epa.gov/air/oaqps/permits/p71forms.html]

III.C. Chemical Accident Prevention [Clean Air Act sections 112(r)(1), 112(r)(3), 112(r)(7), 40 CFR 68.10(a) and 68.215(a)(ii)]

1. A permittee of a stationary source that has more than a threshold quantity of a regulated substance in a process, as determined under 40 CFR 68.115, shall comply with the requirements of the Chemical Accident Prevention provisions at 40 CFR Part 68 no later than the latest of the following dates:

(a) June 21, 1999; or

(b) Three years after the date on which a regulated substance is first listed under 40 CFR 68.130; or

(c) The date on which a regulated substance is first present above a threshold quantity in a process.

2. This facility is subject to Part 68 and the permittee shall certify compliance with all requirements of 40 CFR Part 68, including the registration and submission of the risk management plan (RMP), as part of the annual compliance certification required by 40 CFR Part 71.

III.D. Alternative Operating Scenarios - Turbine Replacement/Overhaul [40 CFR 71.6(a)(9)]

1. Replacement of a permitted turbine with a turbine of the same make, model, heat input capacity rating, and configured to operate in the same manner as the turbine being replaced, shall be an allowed alternative operating scenario provided the replacement activity satisfies all of the provisions for off permit changes under this permit including the provisions specific to turbine replacement.

2. Any emission standards, requirements, or provisions in this permit that apply to the permitted turbines shall also apply to the replacement turbines, including the initial compliance test required by 40 CFR 60.8 and the applicable requirements of 40 CFR Part 60, Subpart GG.

3. Replacement of a permitted turbine with a turbine subject to 40 CFR Part 60, Subpart KKKK is not allowed under this alternative operating scenario.

4. Replacement of a permitted turbine with a turbine subject to 40 CFR Part 63, Subpart YYYY is not allowed under this alternative operating scenario.

[Explanatory note: This condition has been included to allow for off permit replacement of turbines that may have existing federally enforceable limits. For replacement turbines which trigger new applicable requirements (i.e., NSPS or MACT), the minor permit modification process shall be utilized to maintain the permitted emission limits of the replaced engine and/or incorporate the new applicable requirements.]

III.E. Permit Shield [40 CFR 71.6(f)(3)]

Nothing in this permit shall alter or affect the following:

1. The liability of a permittee for any violation of applicable requirements prior to or at the time of permit issuance;

2. The ability of EPA to obtain information from a source pursuant to Section 114 of the CAA or;

3. The provisions of Section 303 of the CAA (emergency orders), including the authority of EPA under that section.

IV. Part 71 Administrative Requirements

IV.A. Annual Fee Payment [40 CFR 71.6(a)(7) and 40 CFR 71.9]

1. The permittee shall pay an annual permit fee in accordance with the procedures outlined below.

[40 CFR 71.9(a)]

2. The permittee shall pay the annual permit fee each year no later than April 1st. The fee shall cover the previous calendar year.

[40 CFR 71.9(h)]

3. The fee payment shall be in United States currency and shall be paid by money order, bank draft, certified check, corporate check, or electronic funds transfer payable to the order of the U.S. Environmental Protection Agency.

[40 CFR 71.9(k)(1)]

4. The permittee shall send fee payment and a completed fee filing form to:

For regular U.S. Postal Service mail	**For non-U.S. Postal Service Express mail** (FedEx, Airborne, DHL, and UPS)
U.S. Environmental Protection Agency FOIA and Miscellaneous Payments Cincinnati Finance Center P.O. Box 979078 St. Louis, MO 63197-9000	U.S. Bank Government Lockbox 979078 US EPA FOIA & Misc. Payments 1005 Convention Plaza SL-MO-C2-GL St. Louis, MO 63101

[40 CFR 71.9(k)(2)]

The permittee shall send an updated fee calculation worksheet form and a photocopy of each fee payment check (or other confirmation of actual fee paid) submitted annually by the same deadline as required for fee payment to the address listed in the Submissions Section of this permit.

[40 CFR 71.9(h)(1)]

[Explanatory note: The fee filing form FF and the fee calculation worksheet form FEE may be found on EPA website at: http://www.epa.gov/air/oaqps/permits/p71forms.html]

5. Basis for calculating annual fee:

   (a) The annual emissions fee shall be calculated by multiplying the total tons of actual emissions of all regulated pollutants (for fee calculation) emitted from the source by the presumptive emissions fee (in dollars/ton) in effect at the time of calculation.

[40 CFR 71.9(c)(1)]

(i) "Actual emissions" means the actual rate of emissions in tpy of any regulated pollutant (for fee calculation) emitted from a Part 71 source over the preceding calendar year. Actual emissions shall be calculated using each emissions unit's actual operating hours, production rates, in-place control equipment, and types of materials processed, stored, or combusted during the preceding calendar year.

[40 CFR 71.9(c)(6)]

(ii) Actual emissions shall be computed using methods required by the permit for determining compliance, such as monitoring or source testing data.

[40 CFR 71.9(h)(3)]

(iii) If actual emissions cannot be determined using the compliance methods in the permit, the permittee shall use other federally recognized procedures.

[40 CFR 71.9(e)(2)]

[Explanatory note: The presumptive fee amount is revised each calendar year to account for inflation, and it is available from EPA prior to the start of each calendar year.]

(b) The permittee shall exclude the following emissions from the calculation of fees:

(i) The amount of actual emissions of each regulated pollutant (for fee calculation) that the source emits in excess of 4,000 tons per year (tpy);

[40 CFR 71.9(c)(5)(i)]

(ii) Actual emissions of any regulated pollutant (for fee calculation) already included in the fee calculation; and

[40 CFR 71.9(c)(5)(ii)]

(iii) The quantity of actual emissions (for fee calculation) of insignificant activities [defined in §71.5(c)(11)(i)] or of insignificant emissions levels from emissions units identified in the permittee's application pursuant to §71.5(c)(11)(ii).

[40 CFR 71.9(c)(5)(iii)]

7. Fee calculation worksheets shall be certified as to truth, accuracy, and completeness by a responsible official.

[40 CFR 71.9(h)(2)]

[Explanatory note: The fee calculation worksheet form already incorporates a section to help you meet this responsibility.]

8. The permittee shall retain fee calculation worksheets and other emissions-related data used to determine fee payment for 5 years following submittal of fee payment. [Emission-related data include, for example, emissions-related forms provided by EPA and used by the permittee for fee

calculation purposes, emissions-related spreadsheets, and emissions-related data, such as records of emissions monitoring data and related support information required to be kept in accordance with §71.6(a)(3)(ii).]

[40 CFR 71.9(i)]

9. Failure of the permittee to pay fees in a timely manner shall subject the permittee to assessment of penalties and interest in accordance with §71.9(l).

[40 CFR 71.9(l)]

10. When notified by EPA of underpayment of fees, the permittee shall remit full payment within 30 days of receipt of notification.

[40 CFR 71.9(j)(2)]

11. A permittee who thinks an EPA assessed fee is in error and who wishes to challenge such a fee, shall provide a written explanation of the alleged error to EPA along with full payment of the EPA assessed fee.

[40 CFR 71.9(j)(3)]

IV.B. Annual Emissions Inventory [40 CFR 71.9(h)(1)and (2)]

The permittee shall submit an annual emissions report of its actual emissions for both criteria pollutants and regulated HAPs for this facility for the preceding calendar year for fee assessment purposes. The annual emissions report shall be certified by a responsible official and shall be submitted each year to EPA by April 1st.

The annual emissions report shall be submitted to EPA at the address listed in the Submissions Section of this permit.

[Explanatory note: An annual emissions report, required at the same time as the fee calculation worksheet by §71.9(h), has been incorporated into the fee calculation worksheet form as a convenience.]

IV.C. Compliance Requirements [40 CFR 71.6(a)(6)(i) and (ii), and Sections 113(a) and 113(e)(1) of the CAAt, and 40 CFR 51.212, 52.12, 52.33, 60.11(g), and 61.12]

1. Compliance with the Permit

   (a) The permittee must comply with all conditions of this Part 71 permit. Any permit noncompliance constitutes a violation of the CAA and is grounds for enforcement action; for permit termination, revocation and re-issuance, or modification; or for denial of a permit renewal application.

   [40 CFR 71.6(a)(6)(i)]

(b) It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

[40 CFR 71.6(a)(6)(ii)]

(c) For the purpose of submitting compliance certifications in accordance with this permit, or establishing whether or not a person has violated or is in violation of any requirement of this permit, nothing shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

[Section 113(a) and 113(e)(1) of the CAA, 40 CFR 51.212, 52.12, 52.33, 60.11(g), and 61.12]

2. Compliance Schedule

(a) For applicable requirements with which the source is in compliance, the source will continue to comply with such requirements.

[40 CFR 71.5(c)(8)(iii)(A)]

(b) For applicable requirements that will become effective during the permit term, the source shall meet such requirements on a timely basis.

[40 CFR 71.5(c)(8)(iii)(B)]

3. Compliance Certifications

The permittee shall submit to EPA a certification of compliance with permit terms and conditions, including emission limitations, standards, or work practices annually by April 1st, and shall cover the preceding calendar year.

[Explanatory note: To help Part 71 permittees meet reporting responsibilities, EPA has developed a reporting form for annual compliance certifications. The form may be found on EPA website at: http://www.epa.gov/air/oaqps/permits/p71forms.html]

The compliance certification shall be certified as to truth, accuracy, and completeness by a responsible official consistent with §71.5(d).

[40 CFR 71.6(c)(5)]

(a) The certification shall include the following:

(i) Identification of each permit term or condition that is the basis of the certification;

(ii) The identification of the methods or other means used for determining the compliance status of each term and condition during the certification period, and whether such methods or other means provide continuous or intermittent data. Such methods and other means shall include, at a minimum, the methods and means required in this permit. If necessary, the permittee also shall identify any

other material information that must be included in the certification to comply with Section 113(c)(2) of the CAA, which prohibits knowingly making a false certification or omitting material information;

(iii) The status of compliance with each term and condition of the permit for the period covered by the certification based on the method or means designated in the preceding paragraph of this permit. The certification shall identify each deviation and take it into account in the compliance certification;

(iv) Such other facts as the EPA may require to determine the compliance status of the source; and

(v) Whether compliance with each permit term was continuous or intermittent.

[40 CFR 71.6(c)(5)(iii)]

IV.D. Duty to Provide and Supplement Information
[40 CFR 71.6(a)(6)(v), 71.5(a)(3), and 71.5(b)]

1. The permittee shall furnish to EPA, within a reasonable time, any information that EPA may request in writing to determine whether cause exists for modifying, revoking, and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the permittee shall also furnish to the EPA copies of records that are required to be kept pursuant to the terms of the permit, including information claimed to be confidential. Information claimed to be confidential must be accompanied by a claim of confidentiality according to the provisions of 40 CFR Part 2, Subpart B.

[40 CFR 71.6(a)(6)(v) and 40 CFR 71.5(a)(3)]

2. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information. In addition, a permittee shall provide additional information as necessary to address any requirements that become applicable after the date a complete application is filed, but prior to release of a draft permit.

[40 CFR 71.5(b)]

IV.E. Submissions [40 CFR 71.5(d), 71.6(c)(1) and 71.9(h)(2)]

1. Any document (application form, report, compliance certification, etc.) required to be submitted under this permit shall be certified by a responsible official as to truth, accuracy, and completeness. Such certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

[Explanatory note: EPA has developed a reporting form CTAC for certifying truth, accuracy and completeness of Part 71 submissions. The form may be found on EPA website at: http://www.epa.gov/air/oaqps/permits/p71forms.html]

2. Any documents required to be submitted under this permit, including reports, test data, monitoring data, notifications, compliance certifications, fee calculation worksheets, and applications for renewals and permit modifications shall be submitted to:

Part 71 Permit Contact
Air Program, 8P-AR
U.S. Environmental Protection Agency,
1595 Wynkoop Street
Denver, Colorado 80202

IV.F. Severability Clause [40 CFR 71.6(a)(5)]

The provisions of this permit are severable, and in the event of any challenge to any portion of this permit, or if any portion is held invalid, the remaining permit conditions shall remain valid and in force.

IV.G. Permit Actions [40 CFR 71.6(a)(6)(iii)]

This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

IV.H. Administrative Permit Amendments [40 CFR 71.7(d)]

The permittee may request the use of administrative permit amendment procedures for a permit revision that:

1. Corrects typographical errors;

2. Identifies a change in the name, address, or phone number of any person identified in the permit, or provides a similar minor administrative change at the source;

3. Requires more frequent monitoring or reporting by the permittee;

4. Allows for a change in ownership or operational control of a source where the EPA determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the EPA;

5. Incorporates into the Part 71 permit the requirements from preconstruction review permits authorized under an EPA-approved program, provided that such a program meets procedural requirements substantially equivalent to the requirements of §71.7 and §71.8 that would be applicable to the change if it were subject to review as a permit modification, and compliance requirements substantially equivalent to those contained in §71.6; or

6. Incorporates any other type of change which EPA has determined to be similar to those listed above in subparagraphs 1 through 5 above.

[Note to permittee: If subparagraphs 1 through 5 above do not apply, please contact EPA for a determination of similarity prior to submitting your request for an administrative permit amendment under this provision.]

IV.I. Minor Permit Modifications [40 CFR 71.7(e)(1)]

1. The permittee may request the use of minor permit modification procedures only for those modifications that:

   (a) Do not violate any applicable requirements;

   (b) Do not involve significant changes to existing monitoring, reporting, or recordkeeping requirements in the permit;

   (c) Do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;

   (d) Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:

      (i) A federally enforceable emissions cap assumed to avoid classification as a modification under any provision of Title I; and
      (ii) An alternative emissions limit approved pursuant to regulations promulgated under Section 112(i)(5) of the CAA;

   (e) Are not modifications under any provision of Title I of the CAA; and

   (f) Are not required to be processed as a significant modification.

   [40 CFR 71.7(e)(1)(i)(A)]

2. Notwithstanding the list of changes ineligible for minor permit modification, minor permit modification procedures may be used for permit modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches, to the extent that such minor permit modification procedures are explicitly provided for in an applicable implementation plan or in applicable requirements promulgated by EPA.

   [40 CFR 71.7(e)(1)(i)(B)]

3. An application requesting the use of minor permit modification procedures shall meet the requirements of §71.5(c) and shall include the following:

   (a) A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;

(b) The source's suggested draft permit;

(c) Certification by a responsible official, consistent with §71.5(d), that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and

(d) Completed forms for the permitting authority to use to notify affected States as required under §71.8.

[40 CFR 71.7(e)(1)(ii)]

4. The source may make the change proposed in its minor permit modification application immediately after it files such application. After the source makes the change allowed by the preceding sentence, and until the permitting authority takes any of the actions authorized by §71.7(e)(1)(iv)(A) through (C), the source must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this time period, the source need not comply with the existing permit terms and conditions it seeks to modify. However, if the source fails to comply with its proposed permit terms and conditions during this time period, the existing permit terms and conditions it seeks to modify may be enforced against it.

[40 CFR 71.7(e)(1)(v)]

5. The permit shield under §71.6(f) may not extend to minor permit modifications.

[40 CFR 71.7(e)(1)(vi)]

IV.J. <u>Group Processing of Minor Permit Modifications</u> [40 CFR 71.7(e)(2)]

1. Group processing of modifications by EPA may be used only for those permit modifications:

   (a) That meet the criteria for minor permit modification procedures under the Minor Permit Modifications section of this permit; and

   (b) That collectively are below the threshold level of 10 percent of the emissions allowed by the permit for the emissions unit for which the change is requested, 20 percent of the applicable definition of major source in §71.2, or 5 tpy, whichever is least.

   [40 CFR 71.7(e)(2)(i)]

2. An application requesting the use of group processing procedures shall be submitted to EPA, shall meet the requirements of §71.5(c), and shall include the following:

   (a) A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;

   (b) The source's suggested draft permit;

   (c) Certification by a responsible official, consistent with §71.5(d), that the proposed

modification meets the criteria for use of group processing procedures and a request that such procedures be used;

(d) A list of the source's other pending applications awaiting group processing, and a determination of whether the requested modification, aggregated with these other applications, equals or exceeds the threshold set under this section of this permit;

(e) Completed forms for the permitting authority to use to notify affected States as required under §71.8.

[40 CFR 71.7(e)(2)(ii)]

3. The source may make the change proposed in its minor permit modification application immediately after it files such application. After the source makes the change allowed by the preceding sentence, and until the permitting authority takes any of the actions authorized by §71.7(e)(1)(iv)(A) through (C), the source must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this time period, the source need not comply with the existing permit terms and conditions it seeks to modify. However, if the source fails to comply with its proposed permit terms and conditions during this time period, the existing permit terms and conditions it seeks to modify may be enforced against it.

[40 CFR 71.7(e)(2)(v)]

4. The permit shield under §71.6(f) may not extend to group processing of minor permit modifications.

[40 CFR 71.7(e)(2)(vi)]

IV.K. Significant Permit Modifications [40 CFR 71.7(e)(3)]

1. The permittee must request the use of significant permit modification procedures for those modifications that:

(a) Do not qualify as minor permit modifications or as administrative amendments;

(b) Are significant changes in existing monitoring permit terms or conditions; or

(c) Are relaxations of reporting or recordkeeping permit terms or conditions.

[40 CFR 71.7(e)(3)(i)]

2. Nothing herein shall be construed to preclude the permittee from making changes consistent with Part 71 that would render existing permit compliance terms and conditions irrelevant.

[40 CFR 71.7(e)(3)(i)]

3. Permittees must meet all requirements of Part 71 for applications, public participation, and review by affected states and tribes for significant permit modifications. For the application to be determined complete, the permittee must supply all information that is required by §71.5(c) for permit issuance and renewal, but only that information that is related to the proposed change.

[40 CFR 71.7(e)(3)(ii), 71.8(d), and 71.5(a)(2)]

IV.L. Reopening for Cause [40 CFR 71.7(f)]

The permit may be reopened and revised prior to expiration under any of the following circumstances:

1. Additional applicable requirements under the Act become applicable to a major Part 71 source with a remaining permit term of 3 or more years. Such a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended pursuant to §71.7 (c)(3);

2. Additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit;

3. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or

4. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

IV.M. Property Rights [40 CFR 71.6(a)(6)(iv)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

IV.N. Inspection and Entry [40 CFR 71.6(c)(2)]

Upon presentation of credentials and other documents as may be required by law, the permittee shall allow EPA or an authorized representative to perform the following:

1. Enter upon the permittee's premises where a Part 71 source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;

3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and

4. As authorized by the CAA, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

IV.O. Emergency Provisions [40 CFR 71.6(g)]

1. In addition to any emergency or upset provision contained in any applicable requirement, the permittee may seek to establish that noncompliance with a technology-based emission limitation under this permit was due to an emergency. To do so, the permittee shall

demonstrate the affirmative defense of emergency through properly signed, contemporaneous operating logs, or other relevant evidence that:

(a) An emergency occurred and that the permittee can identify the cause(s) of the emergency;

(b) The permitted facility was at the time being properly operated;

(c) During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards, or other requirements in this permit; and

(d) The permittee submitted notice of the emergency to EPA within 2 working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. This notice fulfills the requirements for prompt notification of deviations.

2. In any enforcement proceedings the permittee attempting to establish the occurrence of an emergency has the burden of proof.

3. An emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.

IV.P. Transfer of Ownership or Operation [40 CFR 71.7(d)(1)(iv)]

A change in ownership or operational control of this facility may be treated as an administrative permit amendment if the EPA determines no other change in this permit is necessary and provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to EPA.

V.Q. Off Permit Changes [40 CFR 71.6(a)(12) and 40 CFR 71.6(a)(3)(ii)]

The permittee is allowed to make certain changes without a permit revision, provided that the following requirements are met, and that all records required by this section are kept at the Operations Center for a period of 5 years:

1. Each change is not addressed or prohibited by this permit;

2. Each change shall meet all applicable requirements and shall not violate any existing permit term or condition;

3. Changes under this provision may not include changes subject to any requirement of 40 CFR Parts 72 through 78 or modifications under any provision of Title I of the CAA;

4. The permittee must provide contemporaneous written notice to EPA of each change, except for changes that qualify as insignificant activities under §71.5(c)(11). The written notice must describe each change, the date of the change, any change in emissions, pollutants emitted, and any applicable requirements that would apply as a result of the change;

5. The permit shield does not apply to changes made under this provision;

6. The permittee must keep a record describing all changes that result in emissions of any regulated air pollutant subject to any applicable requirement not otherwise regulated under this permit, and the emissions resulting from those changes; and

7. Replacement of a permitted turbine with a new or overhauled turbine of the same make, model, MMBtu/hr, and configured to operate in the same manner as the turbine being replaced, in addition to satisfying all other provisions for off permit changes, shall satisfy the following provisions:

   (a) The replacement turbine must employ air emissions control devices, monitoring, record keeping and reporting that are equivalent to those employed by the turbine being replaced;

   (b) The replacement of the existing turbine must not constitute a major modification or major new source as defined in Federal PSD regulations (40 CFR 52.21);

   (c) No new applicable requirements, as defined in 40 CFR 71.2, are triggered by the replacement; and

   (d) The following information must be provided in a written notice to EPA, prior to installation of the replacement turbine, in addition to the standard information listed above for contemporaneous written notices for off permit changes:

      (i) Make, model number, serial number MMBtu/hr and configuration of the permitted turbine and the replacement turbine;
      (ii) Manufacturer date, commence construction date (per the definitions in 40 CFR 60.2, 60.4230(a), and 63.2), and installation date of the replacement turbine at the facility;
      (iii) If applicable, documentation of the cost to rebuild a replacement turbine versus the cost to purchase a new turbine in order to support claims that a turbine is not "reconstructed," as defined in 40 CFR 60.15 and 63.2;
      (iv) 40 CFR Part 60, Subpart KKKK (New Turbine NSPS) non-applicability documentation;
      (v) 40 CFR Part 63, Subpart YYYY (Turbine MACT) non-applicability documentation; and
      (vi) Documentation to demonstrate that the replacement does not constitute a major new source or major modification, as defined in Federal PSD rules (40 CFR 52.21), as follows:

         (A) If the replacement will not constitute a "physical change or change in the method of operation" as described in §52.21(b)(2)(i), an explanation of how that conclusion was reached shall be provided.

(B) If the replacement will constitute a "physical change or change in the method of operation" as described §52.21(b)(2)(i), the following information shall be provided:

(1) If the existing source is a "major stationary source" as defined in §52.21(b)(1): For each "regulated NSR pollutant" as defined in §52.21(b)(50), a demonstration (including all calculations) that the replacement will not be a "major modification" as defined in §52.21(b)(2). A modification is major only if it causes a "significant emissions increase" as defined in §52.21(b)(40), and also causes a "significant net emissions increase" as defined in §§52.21(b)(3) and (b)(23).

The procedures of §52.21(a)(2)(iv) shall be used to calculate whether or not there will be a significant emissions increase. If there will be a significant emissions increase, then calculations shall be provided to demonstrate there will not be a significant net emissions increase. These latter calculations shall include all sourcewide contemporaneous and creditable emission increases and decreases, as defined in §52.21(b)(3), summed with the PTE of the replacement unit(s).

If netting is used to demonstrate that the replacement will not constitute a "major modification," verification shall be provided that the replacement engine(s) or turbine(s) employ emission controls at least equivalent in control effectiveness to those employed by the engine(s) or turbine(s) being replaced.

PTE of replacement unit(s) shall be determined based on the definition of PTE in §52.21(b)(4). For each "regulated NSR pollutant" for which the PTE is not "significant," calculations used to reach that conclusion shall be provided.

(2) If the existing source is not a "major stationary source" as defined in §52.21(b)(1): For each "regulated NSR pollutant," a demonstration (including all calculations) that the replacement turbine(s), by itself, will not constitute a "major stationary source" as defined in §52.21(b)(1)(i).

8. The notice shall be kept at the Operations Center and made available to EPA on request, in accordance with the general recordkeeping provision of this permit.

9. Submittal of the written notice required above shall not constitute a waiver, exemption, or shield from applicability of any applicable standard or PSD permitting requirements under 40 CFR 52.21 that would be triggered by the replacement of any one turbine, by replacement of multiple turbines, by the replacement of any one engine, or by the replacement of multiple engines.

IV.R. Permit Expiration and Renewal [40 CFR 71.5(a)(1)(iii), 71.5(a)(2), 71.5(c)(5), 71.6(a)(11), 71.7(b), 71.7(c)(1), and 71.7(c)(3)]

1. This permit shall expire upon the earlier occurrence of the following events:

   (a) 5 years elapses from the date of issuance; or

   (b) The source is issued a Part 70 or Part 71 permit under an EPA approved or delegated permit program.

   [40 CFR 71.6(a)(11)]

2. Expiration of this permit terminates the permittee's right to operate unless a timely and complete permit renewal application has been submitted at least 6 months but not more than 18 months prior to the date of expiration of this permit.

   [40 CFR 71.5(a)(1)(iii)]

3. If the permittee submits a timely and complete permit application for renewal, consistent with §71.5(a)(2), but EPA has failed to issue or deny the renewal permit, then all the terms and conditions of the permit, including any permit shield granted pursuant to §71.6(f) shall remain in effect until the renewal permit has been issued or denied.

   [40 CFR 71.7(c)(3)]

4. The permittee's failure to have a Part 71 permit is not a violation of this part until EPA takes final action on the permit renewal application. This protection shall cease to apply if, subsequent to the completeness determination, the permittee fails to submit any additional information identified as being needed to process the application by the deadline specified in writing by EPA.

   [40 CFR 71.7(b)]

5. Renewal of this permit is subject to the same procedural requirements that apply to initial permit issuance, including those for public participation, affected State, and tribal review.

   [40 CFR 71.7(c)(1)]

6. The application for renewal shall include the current permit number, description of permit revisions and off permit changes that occurred during the permit term, any applicable requirements that were promulgated and not incorporated into the permit during the permit term, and other information required by the application form.

   [40 CFR 71.5(a)(2) and 71.5(c)(5)]

V. Appendix

V.A. Inspection Information

1. Directions to Plant: From the City of Durango, Colorado go east on Highway 172 to County Road 307. Then go south on County Road 307 for approximately 2.8 miles. Then go east into the Florida River Compression Facility.

2. Location: Lat. 37°09'23.0" Long. -107°46'50.0"

3. Safety Considerations: All visitors to the BP American Production Company's Florida River Compression Facility are required to wear a hard hat, safety glasses, safety shoes, hearing protection and fire retardant clothing.

V.B. Custom Fuel Monitoring Schedule

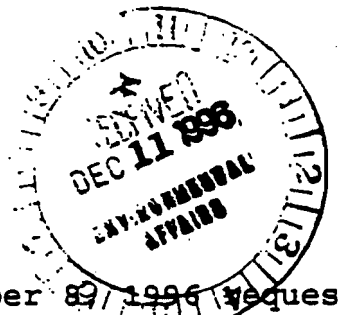
Attached

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII
999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2466

DEC -2 1996

Ref: 8ENF-T

Mr. Richard Duarte
El Paso Natural Gas
3801 Atrisco Blvd., NW
Albuquerque, NM 87120



Dear Mr. Duarte:

This is in response to your November 8, 1996 request for a custom fuel monitoring schedule (CFMS) for El Paso Natural Gas Company's Florida River Compressor Station, Units 1 & 2, located in La Plata County, Colorado. El Paso Natural Gas Company also requested to be allowed to use gas chromatograph monitoring for Phase I and the "Length of Stain Tube" test for Phases II and III for measuring the sulfur content of the natural gas to be burned in the turbines.

Florida River's Units 1 & 2 are subject to 40 CFR Part 60 Subpart GG - Standards of Performance for Stationary Gas Turbines. The custom fuel monitoring schedule for sulfur content, proposed by El Paso, meets the custom sampling schedule set forth for approval in an August 14, 1987 memorandum signed by John B. Rasnic with EPA's Compliance Monitoring Branch. Therefore, EPA Region VIII approves your proposed CFMS for your Florida River's Units 1 & 2.

Your request for the use of a gas chromatograph monitoring system for measuring the natural gas sulfur content falls under the authority of Section 60.13(i) of 40 CFR as a request for alternative monitoring to replace the specified ASTM test methods. According to the tariff specifications in El Paso's gas transmission contracts, the natural gas received from suppliers is limited to approximately 0.0025 weight percent sulfur. This is far below the allowable sulfur content of 0.8 percent. Based on that, the use of El Paso's gas chromatograph monitoring system is sufficient to be used to determine the natural gas sulfur content, and therefore, is approved for use during Phase I sampling at your Florida River's Units 1 & 2. Should the sulfur content of the fuel approach the regulatory limit, EPA reserves the right to revisit this decision.

El Paso also requested the use of the "Length of Stain Tube" test for Phase II and III under the CFMS. In an April 26, 1991 memo from William G. Laxton, Director of the U.S. Environmental Protection Agency's Technical Support Division, the "Length of Stain Tube" test used to test for sulfur in natural gas was determined to be an acceptable alternative test provided that the sulfur content of the fuel gas is well below the 0.8 percent

Subpart GG standard. Since El Paso's fuel gas is low in sulfur, EPA Region VIII agrees to your use of the "Length of Stain Tube" test for Phases II & III for monitoring the sulfur content of the natural gas.

If you have any questions concerning our approval of your custom fuel monitoring schedule, the use of your gas chromatograph as an alternative monitoring procedure or the use of the "Length of Stain Tube" test, you may call Cindy Reynolds of my staff (303) 312-6206.

Sincerely,

Martin Hestmark, Director
Technical Enforcement Program

cc: Jim Geier, CDPHE

EL PASO NATURAL GAS
3801 Atrisco Blvd., NW
Albuquerque, NM 87120

November 8, 1996

Martin Hestmark, Director
Technical Enforcement Program
US EPA Region 8
999 18th Street, Suite 500
Denver, Colorado 80202-2466

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
P 591 541 749

Re: Custom Fuel Monitoring Schedule request for El Paso Natural Gas Company's ("El Paso") Florida River Compressor Station, La Plata County, Colorado.

Dear Mr. Hestmark:

El Paso submits this request for a custom fuel monitoring schedule ("CFMS") for the referenced compressor station. The proposed CFMS demonstrates continuous compliance by incorporating the following:

- El Paso's constant gas quality monitoring system required by the Federal Energy Regulatory Commission ("FERC"); and,
- Segments of a previously approved EPA schedule using the length-of-stain technique.

El Paso presently operates under a tariff, approved by the FERC, which contains more stringent sulfur specifications than the EPA standard in § 60.333.

By combining the FERC-required monitoring with portions of the EPA-approved schedule, the proposed CFMS helps to fulfill one of the main directives in the President's Regulatory Reinvention Initiative for the EPA. In short, the proposed protocol reduces unnecessary reporting and monitoring while at the same time maintaining a high level of environmental protection for the nation.

El Paso believes the proposed CFMS is amenable and appropriate. We would be glad to meet with you to discuss this protocol further and to assist in your review. If you should have any questions, please contact me at 505/831-7763.

Very truly yours,

Richard Duarte
Sr. Environmental Engineer
Compliance Services

Enclosure (Florida River CFMS)

Copy (with enclosure):

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
P 591 541 750

James S. Geier, P.E., Chief
Permit Section
Stationary Sources Program -- Air Pollution Control Division
Colorado Department of Public Health & Environment
4300 Cherry Creek Drive South
Denver, Colorado 80222-1530

EL PASO
NATURAL GAS

Custom Fuel Monitoring Schedule
for

Florida River Compressor Station

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Appendices

EL PASO
NATURAL GAS

Custom Fuel Monitoring Schedule
for
Florida River Compressor Station

1.0 Introduction.

El Paso Natural Gas Company ("El Paso") provides pipeline-quality natural gas transportation services for natural gas suppliers and end users throughout the Southwestern United States. EPNG owns and operates a large pipeline network for which Florida River Compressor Station ("Florida River") is one of many stations that provide natural gas compression. The amount of pipeline quality natural gas transported in the system varies depending on customer demand for natural gas. Compression is needed to maintain enough pressure in the pipeline to make required deliveries to customers. Compression at Florida River is accomplished by two simple-cycle natural gas-fired turbines that drive compressor units. This compressor station is automated and therefore is an unattended location.

The two turbines currently operate under Colorado Department of Health and Environment Air Pollution Control Division's (CDH&E) Permit No. 95LP423 and 90LP014-2 (see Appendix A). The monitoring requirements listed under Florida River's air permits require fuel monitoring, and thus the purpose of this Custom Fuel Monitoring Schedule.

El Paso had initially submitted its request for a Custom Fuel Monitoring Schedule (CFMS) for this facility on December 13, 1994. However, the request had erroneously been submitted to EPA's Region 6 office. The plan was returned to El Paso on August 15, 1996, (which noted the submittal mix-up). In the interim, El Paso developed a different CFMS from that one proposed in 1994, which was recently submitted to Region 6 for turbine facility in Northwestern New Mexico. The enclosed plan and that one submitted to Region 6 are identical (in monitoring protocol) and were adapted from EPA-approved custom schedules for natural gas fueled turbines in the gas transportation industry. Thus the enclosed schedule is more detailed than the one submitted in 1994 and demonstrates continuous compliance with NSPS Subpart GG, specifically Title 40 CFR §60.332 and §60.333.

2.0 Title 40 CFR §60.332 (nitrogen oxides) and §60.333 (sulfur oxides) Applicability.

The station comprises two Solar Centaur Type H turbines. The Centaur's peak load is 5,500 hp (14.56 Gigajoules/hr). Therefore, both turbines are included by the standards (greater than 10.7 Gigajoules/hr) in Subpart GG, specifically at §60.330(a). Accordingly,

the monitoring requirements of the Florida River CFMS are applicable to both turbines (El Paso reference: Florida River Unit Numbers 1 & 2).

This proposed CFMS demonstrates continuous compliance by incorporating El Paso's constant gas quality monitoring system required by the Federal Energy Regulatory Commission ("FERC") and segments of an EPA-approved schedule using the length-of-stain ("LOS") technique. El Paso operates under a tariff approved by the FERC that establishes strict specifications for the sulfur content of the natural gas delivered by El Paso. Therefore, the gas received from suppliers is continuously monitored by El Paso at strategic locations at or very near receipt points to ensure compliance with the tariff specifications. A small portion of this gas is then used to fuel the various natural gas-fired engines used throughout the pipeline system, which includes Florida River. The pertinent sections of the tariff sheet are enclosed for your reference in Appendix B.

3.0 Nitrogen Monitoring Protocol.

3.1 Overview. In general, nitrogen monitoring is not necessarily required, unless fuel sources other than pipeline-quality natural gases are used. Therefore, this nitrogen monitoring protocol is specific to those conditions when non-pipeline-quality natural gas is used as fuel.

3.2 Nitrogen monitoring has been excluded as a requirement from the air permit. In brief, the motives for deleting this requirement are:

a. the nitrogen content of pipeline quality natural gas (and correspondingly the fuel that is used) does not vary significantly like other fuels often used by turbines;
b. El Paso is not taking fuel-bound nitrogen credits; and,
c. free nitrogen does not contribute appreciably to NO_x emissions.

Therefore, the primary focus of the monitoring protocol is chiefly on sulfur content. A copy of Florida River's permits are in Appendix C.

3.3 Regardless of the above, the following CFMS is an alternative to the monitoring requirements contained in §60.334(b)(2).

a. Monitoring of fuel nitrogen content shall **not be required** while pipeline-quality natural gas is the only fuel fired in the gas turbine. This includes use of a bulk storage tank(s) whose source is pipeline-quality natural gas.
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, El Paso shall immediately notify the CDH&E Air Pollution Control Division ("CDH&E") and the US EPA of the excess emissions, and the CFMS shall be re-examined by the CDH&E 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, El Paso will immediately notify the CDH&E and EPA of such change for re-examination of the CFMS. For purposes of this CFMS, it is understood subtle changes or variations in fuel quality occur. These variations or changes are specific heating values, gas composition (methane, ethane, propane, isobutane, isopentane, n-pentane and hexanes) and inert gases, as allowed by El Paso's tariff. A change in fuel supply shall therefore be considered a change in the supply **apart from** pipeline-quality natural gas. Nitrogen monitoring shall be conducted daily during the interim period when this CFMS is being re-examined.

4.0 Sulfur Monitoring Protocol.

4.1 Overview. As its monitoring protocol, El Paso is proposing to use a combination of its natural gas quality monitors, which it is obligated to maintain under its FERC tariff, and EPA's Length-of-stain ("LOS") technique. Sulfur monitoring is proposed in three separate monitoring periods or phases (I, II and III).

Briefly, in the first phase, El Paso is proposing to utilize its 35-year operational knowledge of gas quality produced in the San Juan Basin and current gas quality measurements to replace the EPA's traditional phase I LOS alternative. Phase I of this protocol will serve to minimize duplication of effort, unnecessary paperwork and more importantly reduce personnel burdens for El Paso, CDH&E and EPA. Phases II and III are derived from previously approved EPA protocols.

4.2. Gas Quality Measurement System.

Overview. El Paso maintains, at a minimum three types of continuously operating gas quality monitors at strategic locations at or very near receipt points. The purpose of these monitors is to ensure that on a continuous basis "sweet" pipeline-quality natural gas is always in the pipeline as required by the FERC tariff. The tariff specifications are in turn written into El Paso's gas transmission contracts, which ensure a minimum quality (not solely for H_2S) of all natural gas received from and delivered to any customer. Accordingly as specified in the tariff sheets (on Original Sheet No. 220, Section 5.1(c)), natural gas received from suppliers is limited to total sulfur content of 5 grains/100 standard cubic feet. Reference Appendix B. This amount is equivalent to approximately 0.0025 weight percent sulfur, well below the 0.8 percent limit within Subpart GG.

These monitors may perform a gas analysis for the following components (individually or in select combinations): hydrogen sulfide (H_2S), total sulfur, nitrogen (N_2), carbon dioxide (CO_2), heat value, hydrocarbon content and specific gravity. These continuous composite samplers are either two types of automated gas chromatographs ("GC"), or H_2S-lead acetate tape analyzers ("H_2S analyzers") with data processing resulting in a versatile instrument system that can be adapted to a wide array of analysis methods. The two type of GCs used within the system either monitor solely for sulfur content (H_2S & organic

sulfur) or hydrocarbons and other inert gases. The basic components of these three continuous composite samplers are the automatic injection system, chromatography column or lead acetate tape, sensor, controls and communications connector. Sample gas is intermittently injected auotmatically through a chromatographic column or exposed to lead acetate tape in an H_2S analyzer.

Gas Chromatography of H_2S & Hydrocarbons

The chromatography column is a Teflon tube packed with an adsorbent material that separates the sample gas into its constituents by adsorption and then elution. Each constituent adsorbs for a finite period of time that is determined by the molecular weight and structure of the constituent compound. Thus, the adsorption and elution period are a predictable characteristic of each individual compound and can be programmed into the memory of the integrator or timed by the operator for identification purposes.

In normal operation of a sulfur-monitoring GC, nitrogen is used as the inert carrier gas which travels constantly through the column and into the sensor. This sample cycle normally takes 30 minutes. The carrier gas for the hydrocarbon-monitoring GC is helium. The sampling cycle for a hydrocarbon GC takes approximately 4 minutes. During the injection sequence, sample flow is diverted briefly to the sample loop and then is flushed from the sample loop into the column, where sulfur compounds and other gases are adsorbed. Flow of the carrier gas causes elution of sample components that are separated according to their affinity for the adsorbent material in the column. With some constituents this separation is almost immediate. This process exposes the natural gas constituents to an electrochemical sensor. Sulfur compounds in the sample react with the electrolyte in the sensor that causes a detectable current proportional to sulfur concentration. GCs that are designated for hydrocarbon-quality monitoring sample once every 4 minutes. Whereas, GCs designated for sulfur compounds sample the natural gas stream once every 30 minutes. These values are then averaged once every 24-hours to attain a daily average.

H_2S Analyzers

The H_2S analyzer operation is chiefly a quantitative analysis based on the classic lead acetate test for hydrogen sulfide. The procedure consists of exposing a piece of lead acetate to the gas stream. Any H_2S in the gas stream reacts with the lead acetate on the tape turning it varying shades of brown, depending on the H_2S concentration. The measuring portion of the H_2S analyzer consists of two photocells coupled to a millivolt recorder. Each photocell unit contains a lamp and optical filter. One photocell is the reference while the other serves for measuring the exposed stream. This produces a differential in millivolt output between the photocells. The difference is translated into an H_2S concentration value.

These H_2S analyzers are typically placed at receipt points where "sour gas" fields supply the natural gas treatment plants, which in turn deliver treated pipeline quality natural gas onto El Paso's pipeline network. In the New Mexico San Juan producing basin, El Paso operates only one H_2S analyzer. This is due to El Paso's 35-year operation in this producing area. In contrast, within the "sour" gas producing fields of the West Texas Permian Basin, El Paso maintains well over 70 H_2S Analyzers.

GC and Rubicon Quality Control

GCs and H_2S analyzers are checked by trained and skilled technicians. H_2S analyzers and GCs are inspected for general operation once every week. H_2S analyzers are manually calibrated once every month and GCs once every quarter. However, all GCs auto-verify at a preset time every day. The verification process consists of flowing a gas through the GC with known concentrations and checking the response factor and retention time. If these calculated values are within acceptable tolerances, the GC continues operation. Whenever, a verification fails an alarm is sent to El Paso's Gas Control Center (manned 24-hrs per day) and the equipment is checked and re-calibrated. Manual inspection includes reviewing the general operation of the systems and, at minimum, includes the inspection of temperature sensors, gas flow paths (sample line and purge line), recording devices, communication system and housekeeping.

Calibration on a GC consists of challenging the system with known concentrations of NIST traceable gases per manufacturer procedures. At a minimum, hydrocarbon monitoring GCs are calibrated monthly (verified daily, however); and, sulfur monitoring GCs are calibrated at least once every six months (also verified daily). The sensitivity is rated at 0.1 mg sulfur per cubic meter of gas (approximately 0.1 ppm H_2S). The GC's repeatability is ± 5%.

An H_2S analyzer is challenged monthly with tile standards that have been verified with concentrations of NIST traceable gas at a concentrations of less than or equal to 0.25 grains of H_2S. Accuracy for these systems is ± 0.5% of calibrated range.

GC and Rubicon Operation

The real-time information from any GC is monitored continuously, and if it exceeds 75% of H_2S tariff grain standard, an alarm is sent to El Paso's Gas Control Center. Once again, sulfur-monitoring GCs are typically installed where multiple and combined gas streams can be monitored. These sulfur-monitoring GCs are not used at or near the reciept point where H_2S is not produced with the natural gas and historically has never been a problem for El Paso. Such is the case at Florida River. An H_2S analyzer is not required at the inlet natural gas stream at Florida River because in El Paso's 35-year history of transporting this gas, it has been known as "sweet" from the point of production. The GC monitoring Florida River's sulfur content of the natural gas stream is down-stream of the station (based on El Paso's experience in this production area). The data from this GC is

included in Appendix C. This GC monitors the combined natural gas streams from three other sources (including gas from Florida River). The sole GC monitor upstream of Florida River only monitors hydrocarbon content and inert gases. It does not monitor sulfur compounds since it has never been a source problem. As a matter of fact, El Paso had operated an sulfur monitoring GC immediately downstream of Florida River for an estimated 10 years. The readings never exceeded zero for H_2S, so El Paso discontinued its use in 1992.

An H_2S analyzer functions more independently than a GC. All data is recorded on a chart recorder and any alarms or valve shut-ins are immediately sent to El Paso's Gas Control Center. Typically, the analyzers are set to "alarm" at 0.20 grains and shut-in the valve at 0.25 grains. Whenever a valve is shut-in, gas flow is immediately stopped from the treatment plant, and El Paso then notifies the natural gas treating plant. If a gas limit is exceeded, the gas treating plant operator must correct the H_2S problem before El Paso resets the slam valve and begins receiving pipeline-quality natural gas again. El Paso has only one H_2S analyzer in the San Juan Basin pipeline transportation system and connected to a gathering system downstream, and apart from, the gas flowing from Florida River. This is entirely based on El Paso's 35-year experience in the basin.

4.3 Sulfur Monitoring.

a. Analysis of fuel Sulfur content of the gas turbine (natural gas or any other type of fuel) shall be conducted using the appropriate methods specified in 40 CFR §60.335(d).; or,
b. For Phase I sampling only, use El Paso's GC monitoring system for daily sulfur; See Appendix C, for the proposed Phase I data.
c. Under Phases II and III, 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).
d. 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 of fuel sulfur allowed under this CFMS fuel schedule is as follows:

PHASE	FREQUENCY	TECHNIQUE	PERIOD
I	Daily	El Paso's GC Data	Six months *(data included)*
II	Quarterly	LOS	Eighteen months
III	Semi-annually	LOS	Two years

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 with written notice to the CDH&E and EPA.

e. 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 the CDH&E and EPA of such excess emissions and sulfur monitoring shall be conducted daily during the interim period while this CFMS is being re-examined.

f. If there is a change in fuel supply, the owner or operator must notify the CDH&E 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.

4.4 General Provisions

a. Approval of this CFMS is based on the application submitted El Paso, dated November 8, 1996, for the firing of 100% pipeline-quality natural gas. Any change in any representation made by the company in this application shall cause this CFMS to be suspended and re-examined by the CDH&E and EPA. CDH&E 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, except for Phase I testing using El Paso's GC and Phases II and III using the LOS.

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 the EPA.

d. CDH&E and the 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 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 3.3 (c) and/or 4.3 (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 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, record-keeping and notification requirements as stipulated in Phase III of the schedule. However, the

CDH&E and the EPA may choose to terminate the CFMS and require the company to reapply for a CFMS. Termination of the CFMS will require that the company begin as required by 40 CFR SS 60.334.

g. Date of issuance _____. The contents of this shall be implemented no later than 30-days from date of issuance. The effective start date shall be noted on all documents required by Phases II and III.

h. Records required by the sulfur monitoring protocol will be maintained at El Paso Natural Gas Company's Albuquerque Division Office, 3801 Atrisco Blvd., NW, Albuquerque, New Mexico 87120.

Last page of plan

First Revised Sheet No. 10

Superseding Original Sheet No. 10

Preliminary Statement

PRELIMINARY STATEMENT

El Paso Natural Gas Company, hereinafter referred to as "El Paso" is a "natural gas company" as defined by the Natural Gas Act (52 Stat. 821, 15 U.S.C. 717–717w) and, as such, is subject to the jurisdiction of the Federal Energy Regulatory Commission, hereinafter referred to as "FERC" or "Commission." As used herein, "El Paso" shall not include any of El Paso's affiliates.

El Paso's jurisdictional sales for resale operations are described in the Preliminary Statement contained in Volume No. 1 of El Paso's FERC Gas Tariff.

El Paso is in the business of providing jurisdictional transportation services to or for others as an open–access transporter under authority of Part 284 of the Commission's Regulations pursuant to written contracts containing or incorporating by reference terms and conditions which are acceptable to El Paso. El Paso also provides jurisdictional transportation services on behalf of various shippers pursuant to pre–existing individual contracts which were entered into prior to the effective date of this Volume No. 1–A FERC Gas Tariff. Said pre–existing individual contracts, insofar as they provide for transportation services other than those open–access services which El Paso has agreed to provide under authority of Part 284 of the Commission's Regulations, have and will continue, after the effective date of the Volume No. 1–A FERC Gas Tariff, to be included as special rate schedules in El Paso's Volume No. 2 FERC Gas Tariff. El Paso specifically disclaims any undertaking on its part to provide service as a common or public carrier of natural gas or other goods for hire. Services which El Paso may provide under compulsion of emergency circumstances involving public or private need or of governmental directive shall not serve to constitute El Paso a common or public carrier of natural gas or other goods for hire.

This FERC Gas Tariff is filed in compliance with Part 154, Subchapter E, Chapter I, Title 18, of the Code of Federal Regulations.

Issued by: Patricia A. Shelton, Vice President
Issued on: November 28, 1995
Effective: January 01, 1996
Issued to comply with order of the Federal Energy Regulatory Commission, Docket No. CP94–183–000 and 001, dated SEPTEMBER 13, 1995

First Revised Sheet No. 10

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Original Sheet No. 200

Transportation General Terms and Conditions

Issued by: A. W. Clark, Vice President
Issued on: May 23, 1994
Effective: July 01, 1994

5. QUALITY

5.1 All natural gas received by El Paso at any mainline Receipt Point(s) shall conform to the following specifications and must be, in El Paso's reasonable judgment, otherwise merchantable:

(a) Liquids – The gas shall be free of water and hydrocarbons in liquid form at the temperature and pressure at which the gas is received. The gas shall in no event contain water vapor in excess of seven (7) pounds per million standard cubic feet.

(b) Hydrocarbon Dew Point – The hydrocarbon dew point of the gas received shall not exceed twenty degrees Fahrenheit (20°F) at normal pipeline operating pressures.

(c) Total Sulfur – The gas shall not contain more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, which includes hydrogen sulfide, carbonyl sulfide, carbon disulfide, mercaptans, and mono–, di– and poly–sulfides. The gas shall also meet the following individual specifications for hydrogen sulfide, mercaptan sulfur or organic sulfur:

(i) Hydrogen Sulfide – The gas shall not contain more than one–quarter (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet.

(ii) Mercaptan Sulfur – The mercaptan sulfur content shall not exceed more than three–quarters (0.75) grain per one hundred (100) standard cubic feet.

(iii) Organic Sulfur – The organic sulfur content shall not exceed one and one–quarter (1.25) grains per one hundred (100) standard cubic feet, which includes mercaptans, mono–, di– and poly–sulfides, but it does not include hydrogen sulfide, carbonyl sulfide or carbon disulfide.

(d) Oxygen – The oxygen content shall not exceed two–tenths of one percent (0.2%) by volume and every reasonable effort shall be made to keep the gas delivered free of oxygen.

Example Calculations & Fuel Analyses

The table below is representative of a typical fuel-gas analysis for the Rio Vista station. Gas chromatograph analysis results for nitrogen, carbon dioxide, and hydrocarbons (methane,"C1", through hexane+, "C6+") are reported on a percent molar basis. Hydrogen sulfide ("H_2S") and total organic sulfur ("TOS") results are generally reported in units of "grains per 100 standard cubic feet" (or "gr/100 scf"). The majority of the TOS measurement consists of mercaptans mono-sulfide, di-sulfide, and poly-sulfide.

Component	Mole Percent	gr / 100 scf	Molecular Weight	Mole % * MW	Weight Percent
Nitrogen	0.244	-	28.013	0.068	0.383
Carbon Dioxide	0.806	-	44.010	0.355	1.997
Methane	92.723	-	16.043	14.876	83.695
Ethane	3.640	-	30.070	1.095	6.161
Propane	1.524	-	44.097	0.672	3.781
ISO-Butane	0.253	-	58.123	0.147	0.827
N-Butane	0.380	-	58.123	0.221	1.243
ISO-Pentane	0.134	-	72.150	0.097	0.546
N-Pentane	0.103	-	72.150	0.074	0.416
Hexane +	0.193	-	86.177	0.166	0.934
Hydrogen Sulfide	0.0004	0.250	34.082	0.0001	0.0006
Total Organic Sulfur	0.0035	5.000	77.000	0.0027	0.0152
TOTAL	**100.00**			**17.774**	**100.00**

To convert a sulfur compound grain measurement "grains of H2S or TOS per 100 standard cubic feet " to a weight basis, the following methodology is used:

1. Calculate the weight of total sulfur in 100 SCF of gas.

$$\left(\frac{\text{grains } H_2S \text{ or TOS}}{}\right) \times \left(\frac{1.0 \text{ lb}}{7000 \text{ grains}}\right) \times \left(\frac{(\text{MW of Sulfur}) \text{ lbs}}{(\text{MW of } H_2S \text{ or TOS}) \text{lbs}}\right) = \text{lbs of Sulfur in 100 scf of gas.}$$

Note: the sum of elemental sulfur in H_2S and TOS should equal the total sulfur in 100 SCF of fuel gas.

2. Calculate the total weight of 100 SCF of fuel gas:

$$\left(\frac{100 \text{ SCF of fuel gas}}{}\right) \times \left(\frac{1 \text{ lb-mol fuel gas}}{379 \text{ SCF}}\right) \times \left(\frac{(\text{average MW of fuel gas}) \text{ lbs}}{\text{lb-mol of fuel gas}}\right) = \text{lbs of 100 SCF of gas}$$

3. Weight percent of sulfur is calculated by:

$$\left(\frac{\text{lbs of Sulfur in 100 SCF of gas}}{\text{lbs of 100 SCF of fuel gas}}\right) \times 100 = \text{Wt \% of Sulfur in fuel}$$

For example, to convert 0.25 grains / 100 scf of hydrogen sulfide (assume TOS = 0.0 grains):

$$\left(\frac{0.25 \text{ grains } H_2S}{}\right) \times \left(\frac{\text{lb}}{7000 \text{ grains}}\right) \times \left(\frac{32 \text{ lbs of Sulfur}}{34 \text{ lbs of } H_2S}\right) = 0.000034 \text{ lbs of Sulfur in 100 SCF}$$

Next, calculate the weight of 100 SCF of fuel gas:

$$\left(\frac{100 \text{ SCF of fuel gas}}{}\right) \times \left(\frac{1 \text{ lb-mol fuel gas}}{379 \text{ SCF}}\right) \times \left(\frac{17.774 \text{ lbs}}{\text{lb-mol of fuel gas}}\right) = 4.69 \text{ lbs of 100 SCF of gas}$$

Next, calculate the weight percent of sulfur:

$$\left(\frac{0.000034 \text{ lbs of sulfur}}{4.69 \text{ lbs fuel gas}}\right) \times 100 = 0.0007 \%$$

NOTE: At standard conditions (generally, "60°F" and "14.73 psia" for the natural gas transportation industry), the molar specific volume of any ideal gas, v, is approximately 379 scf/lb-mol. This value is calculated using the ideal gas law,

$$v = \left(\frac{R_u \times T}{P}\right)$$

where:

v = molar specific volume, ft^3/ lb-mol [scf / lb-mol]
R_u = universal gas constant, 10.73164 psia•ft^3 / (lb-mol•°R)
T = standard temperature, °R
P = standard pressure, psia

Total Organic Sulfur, or TOS, is derived from the odorant (mercaptan) contained in the gas transported by El Paso. Where necessary, El Paso may inject varing amounts of mercaptan to ensure minimum levels are delivered to customers.