

United States Environmental Protection Agency
Region VIII
Air and Radiation Program
999 18th Street, Suite 300
Denver, Colorado 80202



AIR POLLUTION CONTROL
TITLE V PERMIT TO OPERATE

Permit Number: V-SU-0032-02.02
Replaces Permit No.: V-SU-0032-02.01

Issue Date: December 6, 2005
Effective Date: December 16, 2005
Expiration Date: April 7, 2008

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

ConocoPhillips Company
Sunnyside Compressor Station

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
SW 1/4 NW 1/4 Section 9, T33N, R9W
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.

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

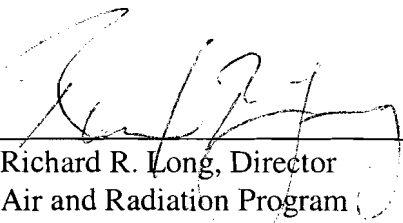

Richard R. Long, Director
Air and Radiation Program
US EPA Region VIII

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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
H ₂ S	Hydrogen sulfide
gal	gallon
HAP	Hazardous Air Pollutant
hr	Hour
Id. No.	Identification Number
kg	Kilogram
lb	Pound
MACT	Maximum Achievable Control Technology
MVAC	Motor Vehicle Air Conditioner
Mg	Megagram
MMBtu	Million British Thermal Units
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 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
RMP	Risk Management Plan
scfm	Standard cubic feet per minute
SNAP	Significant New Alternatives Program
SO ₂	Sulfur Dioxide
tpy	Ton Per Year
US EPA	United States Environmental Protection Agency
VOC	Volatile Organic Compounds

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I. Source Information and Emission Unit Identification

I.A. Source Information

Parent Company Name: ConocoPhillips Company

Parent Company Mailing Address: P.O. Box 2197
Houston, TX 77252-2197

Plant Name: Sunnyside Compressor Station

Plant Mailing Address: 5525 Highway 64
Farmington, NM 87401-1564

Plant Location: SW 1/4 NW 1/4 Section 9, T33N, R9W

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

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

Facility Contact: Robert Wirtanen **Phone:** 505-599-3462
Fax: 505-599-3442

Responsible Official: Greg Laveille **Phone:** 505-599-3401

Tribal Contact: Christopher Lee **Phone:** 970-563-4705

Local Government Contact: N/A **Phone:** N/A

SIC Code: 1311

AFS Plant Identification Number:

Other Clean Air Act Permits: No other Federal Clean Air Act Permits

Description of Process:

The Sunnyside Compressor Station, owned and operated by the ConocoPhillips Company (ConocoPhillips), dehydrates and compresses coalbed methane gas. The gas comes from wells located in the vicinity of the Florida River and the wells are producing the gas from the Fruitland Coal Formation. The gas entering the compressor station flows through an inlet separator and mist screens where most of the water is removed. The water produced by this step is transferred to an on-site storage tank and eventually disposed of into a Class II underground disposal well.

I.B. Source Emission Points

Table 1 - Emission Units
ConocoPhillips, Sunnyside Compressor Station

Emission Unit Id.	Description	Control Equipment
E001 E002	Two Waukesha L 7042 GL Compressor Engines, 1330 site rated hp, natural gas fired: Serial No. C10788/1 Installed 3/03/05 Serial No. C13155/1 Installed 3/12/02	Lean Burn Technology
E003	One Waukesha L 7042 GL Compressor Engine, 1330 site rated hp, natural gas fired: Serial No. C13403/1 Installed 3/12/02	Lean Burn Technology and Oxidation Catalyst
E004	45 MM cf/day NATCO Glycol Dehydrator, Installed 3/12/02	None
E005	One Waukesha L 7042 GSI Compressor Engine, 1463 site rated hp, natural gas fired: Serial No. TBD Installed (proposed for late 2005)	Non-Selective Catalytic Reduction (NSCR) w/ Air/Fuel Ratio Controller (AFRC)

Table 2 -- Insignificant Emission Units
ConocoPhillips, Sunnyside Compressor Station

Emission Unit ID	Description
IEU1-IEU2	2 - 500 gallon lubricating oil day tanks
IEU3-IEU4	2 - 500 gallon used oil tanks
IEU5	273 gallon triethylene glycol storage tank
IEU6	80 bbl fiberglass wastewater tank
IEU7	63 gallon glycol overflow tank
IEU8	45 bbl slop tank
IEU9	1.5 MMBtu/hr natural gas heater
IEU10	Fugitive emissions
IEU11	0.25 MMBtu/hr natural gas-fueled water tank heater
IEU12	500 barrel water tank

II. Specific Requirements for E003 and E005

Certain requirements in section II of this permit have been created, at the permittee's request, to recognize emissions control equipment on engine units E003 and E005 for limiting the PTE of nitrogen oxides (NO_x), carbon monoxide (CO), and formaldehyde (CH₂O). Specifically:

For the existing Waukesha lean burn compressor engine E003, conditions II.A1, II.B, II.C, II.D.1, II.E, II.F to recognize oxidation catalysts for limiting CO and CH₂O emissions; and

For the new Waukesha rich burn engine E005, conditions II.A.2, II.B, II.C, II.D.2, II.E, II.F to recognize NSCR and an air/fuel ratio controller for limiting NO_x, CO, and CH₂O.

[CAA 304(f)(4), 40 CFR 71.6(b) and 71.7(e)(1)(i)(A)(4)(i)]

II.A. Emission Limits

1. Emissions from engine unit E003 equipped with an oxidation catalyst shall not exceed:
 - (a) 0.9 pounds per hour of carbon monoxide (CO) emissions; and
 - (b) 0.1 pounds per hour of formaldehyde (CH₂O) emissions.
2. Emissions from engine unit E005 equipped with a 3-way catalyst (NSCR) and an air/fuel ratio controller shall not exceed:
 - (a) 20.6 pounds per hour of carbon monoxide (CO) emissions;
 - (b) 0.1 pounds per hour of formaldehyde (CH₂O) emissions; and
 - (c) 7.1 pounds per hour of nitrogen oxide (NO_x) emissions.

II.B. Work Practice and Operational Requirements

1. Unit E003, a Waukesha 7042 GL reciprocating natural gas compressor engine with 1,330 site-rated brake horsepower (bhp), shall be equipped with an oxidation catalyst control system capable of reducing uncontrolled emissions of CO by at least 88% and CH₂O emissions by at least 90% at maximum operating rate (90% to 110% of engine capacity at site elevation).
2. Unit E005, a Waukesha 7042 GSI reciprocating natural gas compressor engine with 1463 site rated brake horsepower (bhp), shall be equipped with a non-selective catalytic reduction (NSCR - three way catalyst) with air-to-fuel ratio control system capable of reducing uncontrolled emissions of NO_x by at least 90%,

CO emissions by at least 80%, and CH₂O emissions by at least 50% at maximum operating rate (90% to 110% of engine capacity at site elevation).

3. The permittee shall install thermocouples before the catalyst for units E003 and E005 in order to monitor the inlet temperatures of the catalyst for each engine.
[Comment: The catalyst inlet temperature is important; it has to be hot enough to work, but not so hot as to damage the catalyst. The outlet temperature is not an indicator of performance, but a material constraint].
4. The engine exhaust temperature at the inlet to each catalyst, shall be maintained at all times the engines operate within the following limits:
 - (a) For engine unit E003, an inlet temperature of at least 575°F and no more than 1250°F in accordance with manufacturer's specifications.
 - (b) For engine unit E005, an inlet temperature of at least 700°F and no more than 1250°F in accordance with manufacturer's specifications.
5. The permittee shall install gauges before and after the catalyst for units E003 and E005 in order to monitor pressure drop across the catalyst. The pressure drop across the catalyst for units E003 and E005 shall not change by more than 10% at 100% load plus or minus 10% from the pressure drop across the catalyst measured during the initial performance test. *[Comment: Pressure drop is a good indication of catalyst operation; too low, the catalyst is blown out; too high, it's clogged].*
6. The permittee shall follow, for each engine and its respective catalyst, the manufacturer's recommended maintenance schedule and procedures to ensure optimum performance of each engine and catalyst.
7. All emission units at the Sunnyside Compressor Station shall be fired only with natural gas. The natural gas shall be pipeline-quality in all respects except that CO₂ concentration in the gas shall not be required to be within pipeline-quality.

[The purpose of this permit condition is to ensure there are no contaminants in the fuel that might foul the catalyst. CO₂ is not a potential foulant of the catalyst.]

II.C. Testing Requirements [40 CFR 71.6(a)(3)(i)(A) through (C)]

1. An initial performance test shall be conducted for engine units E003 and E005 for measuring NO_x (E005 only), CO and CH₂O emissions from the engines to demonstrate initial compliance with the emission limits in section II.A.

- (a) The initial performance tests for engine unit E003 shall be conducted within ninety (90) calendar days of the effective date of this permit.
 - (b) The initial performance tests for engine unit E005 shall be conducted within ninety (90) calendars days of the effective date of this permit.
- 2. Upon change out of the catalyst for engine units E003 and E005, a performance test shall be conducted for measuring NO_x (E005 only), CO and CH₂O emissions from the engines to demonstrate compliance with the emission limits in section II.A and re-establish temperature and pressure correlations. The performance test shall be conducted within ninety (90) calendar days of the catalyst change out.
- 3. The performance test for CO shall be conducted in accordance with the test methods specified in 40 CFR part 60, appendix A. EPA Reference Method 10 shall be used to measure CO emissions.
- 4. The performance test for CH₂O shall be conducted in accordance with the test methods specified in 40 CFR part 63, appendix A. EPA Reference Method 320 or 323 shall be used to measure CH₂O emissions.
- 5. The performance test for NO_x shall be conducted in accordance with the test methods specified in 40 CFR part 60, appendix A. EPA Reference Method 7D shall be used to measure NO_x emissions.
- 6. All tests for NO_x, CO and CH₂O emissions must meet the following requirements:
 - (a) All tests shall be performed at a maximum operating rate (90% to 110% of engine capacity at site elevation).
 - (b) During each test run, data shall be collected on all parameters necessary to document how NO_x, CO and CH₂O emissions in pounds per hour were measured or calculated (such as test run length, minimum sample volume, volumetric flow rate, moisture and oxygen corrections, etc.). The temperature at the inlet to the catalyst and the pressure drop across the catalyst shall also be measured and recorded during each test run for each engine.
 - (c) Each source test shall consist of at least three (3) 1-hour or longer valid test runs. Emission results shall be reported as the arithmetic average of all valid test runs and shall be in terms of the emission limits (pounds per hour and grams per horsepower-hour).

- (d) A source test plan for engine unit E003 for CO and CH₂O emissions shall be submitted to EPA for approval at least forty five (45) calendar days prior to the scheduled performance test.
- (e) A source test plan for engine unit E005 for NO_x, CO and CH₂O emissions shall be submitted to EPA for approval at least forty five (45) calendar days prior to the scheduled performance test.
- (f) The source test plan shall include and address the following elements:
 - (i) Purpose of the test;
 - (ii) Engines and catalysts to be tested;
 - (iii) Expected engine operating rate(s) during test;
 - (iv) Schedule/dates for test;
 - (v) Sampling and analysis procedures (sampling locations, test methods, laboratory identification);
 - (vi) Quality assurance plan (calibration procedures and frequency, sample recovery and field documentation, chain of custody procedures); and
 - (vii) Data processing and reporting (description of data handling and quality control procedures, report content).

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

1. Engine Unit E003

- (a) The permittee shall measure CO emissions from unit E003 at least semi-annually or once every six (6) month period to demonstrate compliance with the emission limits in section II.A above. To meet this requirement, the permittee shall measure CO emissions from the engine unit using a portable analyzer and a monitoring protocol approved by EPA. The permittee shall submit the analyzer specifications and monitoring protocol to EPA for approval within forty-five (45) calendar days of the effective date of this permit. Monitoring for CO emissions shall commence within nine (9) months of the permittee's submittal of the initial compliance test results for CO to EPA.

- (b) The permittee shall measure CH₂O emissions from unit E003 at least annually to demonstrate compliance with the emission limits in section II.A above. To meet this requirement, the permittee shall measure CH₂O emissions from the engine using the performance test methods and requirements listed in section II.C above and the test plan approved by EPA as required in section II.C.5. Monitoring for CH₂O emissions shall commence no sooner than the second calendar quarter after the permittee's submittal of the initial compliance test results for CH₂O to EPA.
- (c) The engine exhaust temperature at the inlet to the oxidation catalyst shall be measured at least **once per week**. The pressure drop across the oxidation catalyst shall be measured monthly. Each temperature-sensing thermocouple shall be accurate to within plus or minus three (3) degrees F and the pressure sensing devices shall be accurate to within plus or minus one tenth (0.1) inches of water.

2. Engine Unit E005

- (a) Engine unit E005 at this facility uses a control device to achieve compliance with an emission limitation or standard to which it is subject and has pre-control emissions of NO_x and CO that exceed or are equivalent to the major source threshold. It is therefore subject to the provisions of the CAM program as set forth in 40 CFR part 64. See section II.G for monitoring requirements for NO_x and CO emissions.

[40 CFR part 64]

- (b) The permittee shall measure CH₂O emissions from unit E005 at least annually to demonstrate compliance with the emission limits in section II.A above. To meet this requirement, the permittee shall measure CH₂O emissions from the engine using the performance test methods and requirements listed in section II.C above and the test plan approved by EPA as required in section II.C.5. Monitoring for CH₂O emissions shall commence no sooner than the second calendar quarter after the permittee's submittal of the initial compliance test results for CH₂O to EPA.

II.E. Recordkeeping Requirements [40 CFR 71.6(a)(3)(ii)]

- 1. The permittee shall comply with the following recordkeeping requirements:
 - (a) Records shall be kept of all temperature and pressure measurements required by this permit.

- (b) Records shall be kept of vendor specifications for the thermocouples and pressure gauges.
 - (c) Records shall be kept of vendor specifications for the oxidation catalyst on E003, the 3-way catalyst on E005, and the air-to-fuel ratio controller on E005.
 - (d) Records shall be kept that are sufficient to demonstrate, pursuant to condition II.B.7. of this permit, that the fuel for the engines is pipeline-quality natural gas in all respects, with the exception of CO₂ concentration in the natural gas.
2. The permittee shall keep records of all required testing (section II.C) and monitoring (section II.D) 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 or measurements; and
 - (f) The operating conditions as existing at the time of sampling or measurement.
3. Records shall be kept of off-permit changes, as required by condition IV.Q.
4. The permittee shall retain records of all required monitoring data and support information 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 Region VIII. 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.

II.F. Reporting Requirements [40 CFR 71.6(a)(3)(iii)]

1. The permittee shall submit to EPA a written report of the results of the performance tests required in condition II.C. of this permit. This report shall be submitted within ninety (90) calendar days of the date of testing completion.

2. The permittee shall submit to EPA reports of any monitoring and recordkeeping required under this permit semi-annually by April 1 and October 1 of each year. The report due on April 1 shall cover the prior six-month period from September 1 through the end of February. The report due on October 1 shall cover the prior six-month period from March 1 through the end of August. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with section IV.E of this permit.

[Explanatory note: To help part 71 permittees meet reporting responsibilities, EPA has developed a form "SIXMON" for six-month monitoring reports. The form may be found on EPA website at:

<http://www.epa.gov/air/oagps/permits/p71forms.html>]

3. The permittee shall submit to EPA, as part of the semi-annual monitoring reports required by condition II.F.2 above, a report of any instances where the temperature at the inlet to the catalyst is outside the limits established in Condition II.B, where the pressure drop across the catalyst is outside the limits established in Condition II.B, or where an excursion of the NO_x or CO emission limit has occurred, as well as a description of any corrective actions taken. If no such instances have been detected, then a statement shall be provided to say so.
4. The permittee shall promptly report to the EPA Regional Office 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 hazardous air pollutant or a toxic air pollutant (as identified in the applicable regulation) that continue for more than an 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 hazardous air pollutant or a toxic air pollutant that continues for more than two 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.
- 5. If any of the conditions in II.F.4.(b)(i) or (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, certified consistent with section IV.E 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 condition II.F.2.

[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 EPA website at: <http://www.epa.gov/air/oaqps/permits/p71forms.html>]

- 6. "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.

II.G. Compliance Assurance Monitoring (CAM) [40 CFR part 64]

The Compliance Assurance Monitoring (CAM) requirements in 40 CFR part 64 apply to engine unit E005 as follows:

- 1. The permittee shall follow the CAM Plan provided in the Appendix of this permit. Excursions, for purposes of reporting are any instance when a 24 hour average inlet temperature to the NSCR catalyst is either below 700°F or above 1250°F, the pressure drop across the NSCR catalyst varies by more than 10% from the value

determined at the initial compliance test, the NO_x emissions are above 7.1 lb/hr, or the CO emissions are above 20.6 lb/hr, or the AFR alarm is triggered. Excursions shall be reported as required by section II.F of this permit.

[40 CFR 64.6(c)(1) and (2)]

2. Operation of Approved Monitoring

- (a) The permittee shall conduct the monitoring required under 40 CFR part 64 upon issuance of this permit.

[40 CFR 64.7(a)]

- (b) At all times, the permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

[40 CFR 64.7(b)]

- (c) Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of these CAM requirements, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

[40 CFR 64.7(c)]

- (d) Response to excursions or exceedances

- (i) Upon detecting an excursion or exceedance, the permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing

emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

[40 CFR 64.7(d)(1)]

- (ii) Determination of whether the permittee has acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

[40 CFR 64.7(d)(2)]

- (e) After approval of the monitoring required under the CAM requirements, if the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the owner or operator shall promptly notify EPA and, if necessary submit a proposed modification for this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

[40 CFR 64.7(e)]

3. Quality Improvement Plan (QIP) Requirements

- (a) Based on the results of a determination made under the provisions of condition II.G.2(d), EPA may require the permittee to develop and implement a QIP.

[40 CFR 64.8(a)]

(b) The owner or operator shall maintain a written QIP, if required, and have it available for inspection.

[40 CFR 64.8(b)(1)]

(c) The QIP initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the owner or operator shall modify the plan to include procedures for conducting one or more of the following actions, as appropriate:

(i) Improved preventative maintenance practices;

(ii) Process operation changes;

(iii) Appropriate improvements to control methods;

(iv) Other steps appropriate to correct control performance;

(v) More frequent or improved monitoring (only in conjunction with one or more steps under Conditions (c)(i) through (iv) above).

[40 CFR 64.8(b)]

(d) If a QIP is required, the permittee shall develop and implement a QIP as expeditiously as practicable and shall notify EPA if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.

[40 CFR 64.8(c)]

(e) Following implementation of a QIP, upon any subsequent determination pursuant to condition II.G.2(d), EPA may require that the permittee make reasonable changes to the QIP if the QIP is found to have:

(i) Failed to address the cause of the control device performance problems; or

(ii) Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

[40 CFR 64.8(d)]

- (f) Implementation of a QIP shall not excuse the permittee of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the CAA.

[40 CFR 64.8(e)]

4. Reporting and Recordkeeping Requirements

- (a) Reporting Requirements: The reports required by section II.F of this permit shall include the following information, as applicable:

- (i) Summary information on the number, duration and cause (including unknown cause, if applicable), for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
- (ii) The permittee shall submit, if necessary, a description of the actions taken to implement a QIP during the reporting period as specified in condition II.G.3 of this permit. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring

[40 CFR 64.9(a)(2)(iii)]

- (b) General Recordkeeping Requirements: In addition to the recordkeeping requirements in section II.E,

- (i) The owner or operator shall maintain records of any written QIP required pursuant to Condition II.G.3 and any activities undertaken to implement a QIP, and any supporting information required to be maintained under these CAM requirements (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

[40 CFR 64.9(b)(1)]

- (ii) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.

[40 CFR 64.9(b)(2)]

5. Savings Provisions

- (a) Nothing in these CAM requirements shall excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the CAA. These CAM requirements shall not be used to justify the approval of monitoring less stringent than the monitoring which is required under separate legal authority and are not intended to establish minimum requirements for the purposes of determining the monitoring to be imposed under separate authority under the CAA, including monitoring in permits issued pursuant to title I of the CAA. The purpose of the CAM requirements is to require, as part of the issuance of this title V operating permit, improved or new monitoring at those emissions units where monitoring requirements do not exist or are inadequate to meet the requirements of CAM.

[40 CFR 64.10(a)(1)]

- (b) Nothing in these CAM requirements shall restrict or abrogate the authority of the U.S. EPA to impose additional or more stringent monitoring, recordkeeping, testing or reporting requirements on any owner or operator of a source under any provision of the CAA, including but not limited to sections 114(a)(1) and 504(b).

[40 CFR 64.10(a)(2)]

- (c) Nothing in these CAM requirements shall restrict or abrogate the authority of the U.S. EPA to take any enforcement action under the CAA for any violation of an applicable requirement or of any person to take action under section 304 of the CAA.

[40 CFR 64.10(a)(2)]

6. CAM Implementation Plan and Schedule

If the monitoring submitted by the permittee requires installation, testing, or other necessary activities prior to use of the monitoring for purposes of this part, the permittee shall include an implementation plan and schedule for installing, testing and performing any other appropriate activities prior to use of the monitoring. The implementation plan and schedule shall provide for use of the monitoring as expeditiously as practicable after approval of the monitoring in this part 71 permit pursuant to §64.6, but in no case shall the schedule for completing installation and beginning operation of the monitoring exceed 180 days after approval this permit.

[40 CFR 64.4(e)]

Table 3 - CAM Compliance Schedule

Action Item	Compliance Date
Submit Engine Test Plan to EPA	Within 45 days of effective date of this permit
Conduct Engine Performance Test	Within 90 days of effective date of this permit
Submit CAM parameter monitoring correlation	Within 180 days of effective date of this permit

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 Table 1 and Table 2 of section I.B.

[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) one or more hazardous air pollutants 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 on site at the source for a period of five 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. Records shall be kept of off-permit changes, as required by condition IV.Q. below.

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

1. Nothing in this permit shall alter or affect the following:
 - (a) The liability of a permittee for any violation of applicable requirements prior to or at the time of permit issuance;
 - (b) The ability of the EPA to obtain information under section 114 of the Clean Air Act; or
 - (c) The provisions of section 303 of the Clean Air Act (emergency orders), including the authority of the Administrator under that section.

III.C. Alternative Operating Scenarios [40 CFR 71.6(a)(9) and 40 CFR 71.6(a)(3)(ii)]

1. Gas- Fired Engine Replacement/Overhaul

Replacement of an existing permitted engine with a new or overhauled engine of the same make, model, horsepower rating, and configured to operate in the same manner as the engine being replaced, and which satisfies all of the provisions for Off Permit Changes (condition IV.R. of this permit), including the provisions specific to engine replacement, shall be considered an allowed alternative operating scenario under this permit.

Any emission limits, requirements, or provisions that apply to engines that are replaced under this Alternative Operating Scenarios section shall also apply to the replacement engines. A replacement engine for units E003 and E005 shall be considered a new unit and thus subject to the initial compliance test required by condition II.C. and all other conditions applicable to units E003 and E005 in this permit.

III.D. Compliance Schedule

1. 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)]

2. 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)]

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 1. 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:

Mellon Bank
Attn: Part 71 Permit Accounting
Lockbox 360859
Pittsburgh, PA 15251-6859
[40 CFR 71.9(k)(2)]
 5. 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 section IV.E. 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>]*
6. 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;

[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 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 1.

The annual emissions report shall be submitted to EPA at the address listed in section IV.E. 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

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 Clean Air Act and is grounds for enforcement action; for permit termination, revocation and reissuance, 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 section IV.C.2 of 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 Act, 40 CFR 51.212, 52.12, 52.33, 60.11(g), and 61.12.]

2. 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 12 month period ending on February 28th of the year the certification of compliance is due.

[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 method(s) 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 Clean Air Act, 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 (ii) above. 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/oaqps/permits/p71/forms.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 and Radiation Program, 8P-AR
U.S. Environmental Protection Agency,
999 18th Street, Suite 300
Denver, Colorado 80202-2466

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)]

3. The permittee may request the use of administrative permit amendment procedures for a permit revision that:
 - (a) Corrects typographical errors;
 - (b) 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;
 - (c) Requires more frequent monitoring or reporting by the permittee;
 - (d) 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;
 - (e) 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
 - (f) Incorporates any other type of change which EPA has determined to be similar to those listed above in subparagraphs (i) through (v) above.

[Note to permittee: If subparagraphs (i) through (v) 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 requirement;
 - (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 Clean Air Act;
- (e) Are not modifications under any provision of title I of the Clean Air Act; 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 procedures in paragraph (a) above, 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. Group Processing of Minor Permit Modifications. [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 section IV.I. (a) 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 tons per year, 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 subparagraph (a)(ii) above; and
- (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) does not extend to group processing of minor permit modifications.

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

1. The permit may be reopened and revised prior to expiration under any of the following circumstances:
 - (a) 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);
 - (b) 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;
 - (c) 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
 - (d) 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 Clean Air Act, 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)]

5. 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.
6. In any enforcement proceeding the permittee attempting to establish the occurrence of an emergency has the burden of proof.

7. 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.

IV.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 on site at the source for a period of five 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 Clean Air Act;
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. For replacement of an existing permitted compressor engine with a new or overhauled engine of the same make, model, horsepower rating, and configured to operate in the same manner as the engine being replaced, in addition to satisfying all other provisions for Off-Permit Changes, the permittee satisfies the following provisions:
- (a) The replacement engine employs air emissions control devices, monitoring, record keeping and reporting that are equivalent to those employed by the engine being replaced;
 - (b) The replacement of the existing engine does 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 is provided in a written notice to EPA, prior to installation of the replacement engine, in addition to the standard information listed above for contemporaneous written notices for off-permit changes:
 - (i) Make, model number, serial number, horsepower rating and configuration of the existing engine and the replacement engine, and
 - (ii) 40 CFR part 63, subpart ZZZZ (RICE MACT) non-applicability documentation, as follows:

[Explanatory note: RICE means reciprocating internal combustion engine. The terms "existing stationary RICE," "new stationary RICE," and "reconstructed stationary RICE" have the same meaning provided at 40 CFR 63.6590.]

- (A) If the permitted facility is a major source of hazardous air pollutant (HAP) emissions, as defined by 40 CFR 63.6585(b), and an existing stationary RICE is replaced by a new stationary RICE, a demonstration of RICE MACT non-applicability.
- (B) If the permitted facility is a major source of hazardous air pollutant (HAP) emissions, as defined by 40 CFR 63.6585(b), and an existing stationary RICE is replaced by a reconstructed stationary RICE:

- (1) A demonstration, including all calculations, that the fixed capital cost of the new components does not exceed 50 percent of the fixed capital cost that would be required to construct a comparable new source; and
 - (2) A demonstration that it is technologically and economically infeasible for the reconstructed source to meet the relevant standards established by the administrator pursuant to section 112 of the CAA.
 - (C) If the permitted facility is not a major source of HAP emissions as defined by 40 CFR 63.6585(b), documentation with calculations to show that the PTE of the facility, for HAP pollutants regulated under the Act, is below the level defined as a major HAP source in 40 CFR 63.6585(b).
- (iii) 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 engine(s) or 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 on site 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 engine, or by 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) For sources other than those identified in subparagraph (a)(i) above, five (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. Permit Revision History

DATE OF REVISION	TYPE OF REVISION	SECTION NUMBER, CONDITION NUMBER	DESCRIPTION OF REVISION
5/2005	Significant Modification	Section II	Added Section II, Requirements for Specific Units. Incorporated federally enforceable requirements (emission limits, monitoring, record keeping and reporting requirements) to recognize emission controls on engine units E003 and E005.

V.B. Inspection Information

1. Driving Directions to Plant

From the intersection of US Highway 550 and County Road 218 in La Plata County Colorado, go east on County Road 218 for 1.1 miles, to a "t" road intersection. Turn south (right) and proceed 0.3 miles. Turn east (left) and down the hill and cross the Florida River and follow the road around to the compressor station; about 1 mile total from the top of the hill.

2. Latitude and Longitude coordinates:

Lat. 37° 07' 11.828308" Long 107° 50' 10.643585" (dms)

3. Safety Considerations:

All visitors to the Sunnyside Compressor Station are required to wear a hard hat, safety glasses, safety toe footwear, hearing protection, and fire retardant clothing.

V.C. CAM Plan for Engine Unit E005

I. Background

A. Emissions Unit

Description:	Waukesha L7042 GSI rich burn natural gas compressor engine
Identification:	E005
Facility:	Sunnyside Compressor Station Southern Ute Indian Reservation

B. Applicable Regulation, Emission Limit, and Pre-CAM Monitoring Requirements

Regulation:	Emission limits, monitoring, recordkeeping and reporting requirements created in part 71 permit to establish federally enforceable recognition of emission control on engine.
Emission limits:	NO _x : 7.1 lb/hr CO: 20.6 lb/hr

C. Control Technology, Capture System, Bypass, PTE

Controls:	Non-selective catalytic reduction and air to fuel ratio controller (NSCR w/ AFRC).
Capture System:	N/A
Bypass:	N/A
Potential pre-control device emissions:	NO _x : 310.8 TPY CO: 452.1 TPY
Potential post-control device emissions:	NO _x : 31.1 TPY CO: 90.4 TPY (Based on typical catalyst performance)

II. Monitoring Approach

The key elements of the monitoring approach are presented in the attached table.

III. Response to Excursion

- A. Excursions of the average inlet temperature range to the catalyst, pressure differential across the catalyst, or NO_x or CO levels during emission testing, in addition to an alarm signaling the improper functioning the AFR will trigger an inspection, corrective action, and reporting. Maintenance personnel will inspect the AFR controller, compressors and catalyst within 24 hours and make needed repairs as soon as practicable.
- B. QIP Threshold: Any two excursions of NO_x or CO levels during consecutive emission tests, regardless of whether the alarm for the AFR is silent or the inlet temperature to the catalyst is within the ranges of this plan, shall trigger a QIP. Any seven (7) excursions the 24 hour average inlet temperature to the catalyst, pressure differential across the catalyst, or AFR controller alarm, over a one week (7-day) period, despite corrective action specified in III.A above, shall also trigger a QIP.

Monitoring Approach: Sunnyside Compressor Station Catalytic Converter for E005

	Indicator No. 1	Indicator No. 2	Indicator No. 3	Indicator No. 4
I. Indicator	O ₂ concentration in the engine exhaust to assure proper operation of the AFR (that is, no alarm).	Pressure differential across the catalyst	Temperature of exhaust gas into the thermocouple.	NOx and CO measurement.
Measurement Approach	O ₂ concentration into the catalyst is measured continuously using an in-line O ₂ sensor.	Pressure at the inlet and outlet of the catalyst is monitored continuously using pressure gauges; or pressure differential is measured using a pressure gauge.	Exhaust gas temperature is measured continuously using an in-line thermocouple.	NOx and CO are measured using a portable analyzer.
II. Indicator Range	The indicator range is $0.2\% < O_2\% < 0.8\%$. May need to be adjusted based on set-point established during the initial stack test. If the O ₂ % deviates from this range the AFR goes into alarm.	The pressure differential shall not vary by more than 10% from the value determined during the initial compliance test.	Temperature at the inlet of the catalyst shall be maintained between 700°F and 1250°F.	NOx above 7.1 lb/hr CO above 20.6 lb/hr
III. Performance Criteria				Gases are measured at the exhaust of the catalyst under normal operating conditions.
A. Data Representativeness ^a	O ₂ % is measured at the engine exhaust while the engine is operating.	Pressure differential is measured across the catalyst. The minimum accuracy is 0.1 inches of water.	Temperature is measured at the inlet of the catalyst by a thermocouple. The minimum accuracy is ±1 percent.	
B. QA/QC Practices and Criteria	O ₂ sensors will be replaced quarterly, or more frequently as needed. Inspection and preventative maintenance of the oxygen sensor, the AFRC, and other components of the engine shall be performed to ensure the catalyst working conditions are appropriate.	Pressure measuring devices(s) calibrated per manufacturers specifications, at least quarterly. Pressure taps will be checked monthly for plugging.	Thermocouple calibrated per manufacturers specifications, at least quarterly. Inspection and preventative maintenance of thermocouple, the over-temperature device, and other components of the engine and catalyst system shall be performed to ensure the catalyst bed is providing an ideal reduction reaction per manufacturer's specifications.	As stated in the portable monitoring protocol to be developed by ConocoPhillips and approved by EPA.
C. Monitoring Frequency	O ₂ percent monitored continuously.	Pressure is measured monthly	Temperature is measured continuously.	Quarterly testing to verify compliance with permitted emissions limits.

	O ₂ % set-point for the AFR re-established whenever the oxygen sensor is replaced. Records are maintained to document alarmed events and any required maintenance.	Pressure data will be measured while the engine is operating at 100% load $\pm 10\%$. Records will be maintained to document monthly readings and any required maintenance.	The temperature is recorded continuously. No recording required for days when engine is not operated.	As specified in the portable monitoring protocol to be developed by ConocoPhillips and approved by EPA.
	None.	None to exceed maximum or go below the minimum.	24 hour average	Each test shall consist of at least three (3) valid test runs. Emissions results shall be arithmetic average of all valid test runs.

Justification

I. Background

The monitoring approach outlined here applies to the three-way non-selective catalyst reduction (NSCR) and air-to-fuel ratio (AFR) system used on a rich-burn natural gas fired compressor engine (E005). The NSCR lowers NO_x, as well as CO, CH₂O, and hydrocarbon emissions.

II. Rationale for Selection of Performance Indicators

The oxygen content of the engine exhaust has been selected as a performance indicator because oxygen content of the exhaust gas is important for the proper functioning of the catalyst. The AFR controller and oxygen sensor are set up on a feedback loop. The AFR monitors the O₂ and adjusts the mixture to maintain a constant O₂ level. When the AFR can longer hold the O₂ at the set-point because the O₂ is either too high or too low, it should go into alarm. The reasons for the inability of the AFR to hold the O₂ level could include a bad sensor, mechanical failure, engine problems causing excessively rich or lean mixture (misfire, air leak, etc.). Therefore, the AFR is equipped with an alarm (or "engine light") to monitor its proper operation, including the proper O₂ level. The alarm triggers an investigation and repairs.

Temperature into the catalyst unit is measured because temperature excursions can indicate problems with engine operation that can prevent the chemical reaction from taking place in the catalyst bed. Too low of an exhaust gas temperature reduces the activity of the intended chemical/catalyst reaction. Too high of an exhaust gas temperature can indicate engine problems which can damage the catalyst unit. Continuous monitoring of inlet temperature by thermocouple, and inspection and preventative maintenance (IPM) of temperature thermocouples, the over-temperature device, and other components of the engine and catalyst system ensures the catalyst bed is providing an ideal reduction reaction.

Pressure differential across the catalyst can indicate whether the catalyst is damaged resulting in channeling or other problems such as fouling or plugging in the catalyst. Any of these conditions would result in reduced catalyst performance.

Quarterly NO_x and CO emissions testing will demonstrate continued compliance with emission limits and the link between the output voltage range on the oxygen sensor, temperature indicator range, implementation of the IPM plan, and proper operation of the engines and catalyst.

III. Rationale for Selection of Indicator Ranges

The output voltage range on the oxygen sensor is site-specific and must be set during the initial performance test to determine the set point voltage that results in the best emission performance. Once the set point is established, an alarm will be triggered if the position of an AFR controller stepper valve is at the minimum travel limit (indicating the engine is too rich and the controller cannot close the valve any further) or maximum travel limit (indicating that the engine is too lean and the controller cannot open the valve any further to enrich the mixture). The AFR alarm will be checked daily (along with the engine exhaust temperature) to see if it has been triggered.

The exhaust gas temperature range of 700°F to 1250°F was selected based upon the catalyst manufacturer's suggested operating parameters for optimal chemical reaction and this company's field experience. The reduction reaction does not take place properly if the engine exhaust gas into the catalyst system is not at least 750°F. An engine exhaust temperature greater than 1250°F could damage the catalyst. The exhaust gas temperature will be measured continuously and the 24 hour average recorded daily.

Acceptable pressure differential shall be based on measurements obtained during the initial performance test, and shall not vary by more than 10% from the value measured at that time. A pressure drop that is too low can indicate that the catalyst is blown out, while a high pressure drop can indicate that the catalyst is clogged. The pressure differential will be checked monthly.

Emissions testing, using an approved EPA Reference Methods (see section II of the draft permit), will be conducted. The purpose of this testing will be: (1) To demonstrate initial compliance with NO_x and CO emissions

limits in the permit; (2) To establish the output voltage range on the oxygen sensor for the AFR; and (3) To establish quantitative relationship between emissions and the pressure differential across the catalyst. During this test, the average NOx and CO emissions will be measured. In addition, the inlet temperature to the catalyst will be measured. The complete test results will be documented in a test report and parameter ranges will be adjusted as necessary.

A correlation between the output voltage range on the oxygen sensor for the AFR and the average NOx and CO emissions must be established within six (6) months of permit issuance. A correlation between output the pressure differential and the average NOx and CO emissions must be established within six (6) months of permit issuance.

A performance test must be conducted and correlations confirmed or re-established if/when catalyst is changed or the engine is replaced via the alternative operating scenario in this permit