

**TECHNICAL REVIEW DOCUMENT  
OPERATING PERMIT 95OPRB017**

to be issued to:

Canyon Gas Resources  
Foundation Creek Gas Conditioning Plant  
Rio Blanco County  
Source ID 1030020

Prepared by Geoffrey D. Drissel  
September 3, 2001

I. Purpose:

This document will establish the basis for decisions made regarding the applicable requirements, emission factors, monitoring plan and compliance status of emission units covered within the Operating Permit proposed for this site. It is designed for reference during review of the proposed permit by the EPA and during Public Comment. This narrative is intended only as an adjunct for the reviewer and has no legal standing. This version of the Technical Review Document reflects the change of ownership from Wildhorse Energy Partners to Canyon Gas Resources.

Williams Field Services (WFS) submitted the original operating permit application for this facility on December 30, 1994 and an additional information package on August 1, 1995. Performance testing that took place in June 1996 modified some of the previously submitted material. Wildhorse Energy Partners (WEP) purchased this facility in October of 1996 and submitted revisions to the original application on September 30, 1998.

On April 16, 1998 the Colorado Air Quality Control Commission directed the Division to implement new procedures regarding the use of short term emission and production/throughput limits on Construction permits. These procedures are being directly implemented in all operating permits that had not started their Public Comment period as of April 16, 1998. All short term emission and production/ throughput limits that appeared in the construction permits associated with this facility that are not required by a specific State or Federal standard or by the above referenced Division procedures have been deleted and all annual emission and production/throughput limits converted to a rolling 12 month total. Note that, if applicable, appropriate modeling to demonstrate compliance with the National Ambient Air Quality Standards was conducted as part of the Construction Permit processing procedures. If required by this permit, portable monitoring results and/or EPA reference test method results will be multiplied by 8760 hours for comparison to annual emission limits unless there is a specific condition in the permit restricting hours of operation.

Any revisions made to the underlying construction permits associated with this facility made in conjunction with the processing of this operating permit application have been reviewed in accordance with the requirements of Regulation No. 3, Part B, Construction Permits, and have been found to meet all applicable substantive and procedural requirements. This operating permit incorporates and shall be considered to be a combined construction/operating permit for any such revision, and the permittee shall be allowed to operate under the revised conditions upon issuance of this operating permit without applying for a revision to this permit or for an additional or revised Construction Permit.

## II. Source Description:

This source is classified as a natural gas compression facility defined under Standard Industrial Classification 4922. Gas is compressed to specification for transmission to sales pipelines using one natural gas-fired turbine to power a compressor unit. This plant also conditions the field gas and recovers natural gas liquids. Additional equipment includes several small storage tanks and natural gas liquids loading facilities.

The facility is located in a rural area approximately 35 miles south of Rangely in Rio Blanco County, Colorado, in an area designated as attainment for all criteria pollutants. Utah is designated as an affected state located within a 50 mile radius of the facility. This source is major with respect to future Prevention of Significant Deterioration (PSD) requirements, although the source was minor when first installed and a major modification has not occurred that would trigger PSD review. The facility-wide potential and actual emissions as follows:

	<u>Pollutant</u>		<u>Potential to Emit (tpy)</u>	<u>Actual Emissions (tpy)</u>
	NOx	182.2	101.5	
VOC	297.0	297.0		
	CO		82.8	21.0
	HAPs		126.3	126.3

Potential emissions are taken from the new and revised construction permits for this facility and from revised APEN data provided with the 9/30/98 resubmittal. Actual emissions are taken from AIRS data sheets issued in May of 1995, with the addition of emission estimates for the glycol dehydrators, amine regenerator and facility fugitives. The Division assumes that emissions from the facility have remained the same or

decreased from the levels listed above.

WEP certified that the facility was in not compliance with all applicable requirements at the time of the September 30, 1998 application resubmittal, primarily because some of the units have been operating without Construction Permits. The applicant also indicated that the facility is subject to 112(r), the Accidental Release Prevention Program of the Federal Clean Air Act.

### III. Emission Sources:

The following sources are specifically regulated under terms and conditions of the operating permit for this Site:

#### **Unit P001- Solar Centaur Model T-3550, Natural Gas Fired Turbine Site-Rated at 2,732 HP, Serial No. 1087C41**

##### Discussion:

**1. Applicable Requirements-** Prior to Title V application submittal, Colorado Emission Permit C-12,354 defined applicable requirements for a Solar Centaur Model 3000R turbine, Serial No. CT79330. As a result of the Title V application submittal, Construction Permit 12RB354 was written that set emission limits consistent with the Title V application. However, processing was stopped at the request of the applicant and this permit was never issued. Subsequent to the Title V application submittal, WFS applied for a Construction Permit for a Solar Centaur Model T-3550 turbine, Serial No. 1087C41. Construction Permit 95RB422 was issued for the Model T-3550 turbine on July 11, 1995. Terms of permit 95RB422 required the removal of the Model 3000R turbine from the Foundation Creek site and the cancellation of Construction Permit C-12,354. Thus, the Model T-3550 turbine replaced the Model 3000R turbine as Unit P001 in the Title V application.

Construction Permit 95RB422 established hourly and annual emission limits for NO<sub>x</sub>, CO and VOC, as well as hourly and annual fuel use limits. It also required the completion of a compliance test to verify emissions of NO<sub>x</sub> and CO. The required compliance test was performed in June of 1996, and the results indicated that the turbine was unable to meet the NO<sub>x</sub> limits contained in Permit 95RB422. Consequently, Wildhorse Energy Partners requested an increase in the permitted NO<sub>x</sub> emission levels and fuel use limits. In addition, on September 30, 1998, WEP submitted a revised APEN for this unit which

modified the annual NOx emission limit and fuel use limit. The terms contained in the revised APEN, and in Permit 95RB422, are as follows:

<u>Parameter</u>	<u>Short Term Limit</u>	<u>Long Term Limit</u>
NOx	N/A	89.4 tons/yr
VOC	0.01 lbs/hr	0.3 tons/yr
CO	12.7 lbs/hr	31.5 tons/yr
Fuel Use	N/A	361.0 MMscf/yr

As mentioned above, the short term limits listed above will not be incorporated into the Operating Permit. The Regulation No. 1 particulate limit for fuel burning equipment will be the only short term limit included as an applicable requirement. The annual NOx, CO and fuel use limitations and the 20% opacity limit will be incorporated into the Operating Permit. Because the emission limits for VOC contained in Permit 95RB422 are less than APEN de minimis levels (0.01 lb/hr, 0.3 tpy) and there is a fuel use limitation, those requirements will not be included in the draft Operating Permit.

Construction Permit 95RB422 also established this turbine as being subject to NSPS Subpart GG, including limitations on the turbine exhaust gas NOx concentration (150 ppmv) and exhaust gas SO<sub>2</sub> concentration or the fuel sulfur content. Subpart GG requires that turbine fuel be analyzed for sulfur content and that the sulfur dioxide emissions cannot exceed 0.015% by volume at 15% O<sub>2</sub> on a dry basis and that the sulfur content of the fuel cannot exceed 0.8% by weight. Based on engineering judgement, the Division has determined that the exclusive use of natural gas as a fuel will be sufficient to monitor compliance with these standards. The appropriate limitations and recordkeeping and reporting requirements contained in Subpart GG have been incorporated into the draft Operating Permit.

**2. Emission Factors-** Emissions from this turbine are produced during the combustion process, and are dependent upon certain operating parameters and specific properties of the natural gas being burned. The pollutants of concern are nitrogen oxides (NOx), carbon monoxide (CO) and volatile organic compounds (VOCs). Small quantities of Hazardous Air Pollutants (HAPs) are also emitted when combustion is incomplete.

The emission factors that will be used to calculate NOx and CO emissions are

derived from the annual NOx and CO limits, listed above, and the maximum design fuel rate of the turbine. Detailed calculations demonstrating this derivation are provided in the attached Summary of Emission Factor Derivations. These emission factors are as follows:

<u>Pollutant</u>	<u>Emission Factor</u>	<u>Source</u>
NOx	0.646 lb/MMBtu	Conversion
CO	0.228 lb/MMBtu	Conversion

These emission factors are acceptable to the Division because they are higher than corresponding AP-42 emission factors, which the Division considers default values.

**3. Monitoring Plan-** Conditions 1.1 through 1.9 of Section II of the Operating Permit list the monitoring and recordkeeping provisions necessary to verify compliance with applicable requirements for this turbine.

The Division has determined that turbines that are subject to NSPS Subpart GG, and that do not utilize CEMs to monitor emissions, shall conduct portable monitoring analyses for NOx and CO on a quarterly basis. This will be necessary to verify both the mass emission rates of both pollutants as well as the concentration of NOx in the turbine exhaust gases. Comparison of the measured values with the annual mass emission limit and the outlet concentration limit will determine compliance with those permit conditions. Note that the measured outlet NOx concentration must be corrected to 15% O<sub>2</sub> and ISO standard day conditions. In addition, this turbine shall conduct a stack test during the term of the Operating Permit within 365 days prior to permit expiration. A stack test conducted on June 26, 1996 satisfies the requirement for an initial demonstration of compliance with the Operating Permit limits.

In addition to the monitoring and stack test requirements described above, the source will be required to perform emission calculations utilizing the appropriate emission factors and fuel use. For the purpose of demonstrating compliance with annual NOx and CO emission limits, the applicant will be required to conduct the emission calculation monthly. Rolling twelve month emission and fuel use totals will be maintained for comparison with the annual emission and fuel use limits. For the purpose of calculating fees, the applicant will be required to conduct the emission calculation annually and submit a revised APEN to the Division if emissions increase as described in Regulation No. 3, Part A,

Section II.C.2.

Compliance with the opacity standard of 20% will be demonstrated by a certification that each unit has used natural gas exclusively during the reporting period.

**4. Compliance Status-** This unit completed performance testing in June 1996. At that time the unit was unable to meet the NO<sub>x</sub> emission limits contained in Construction Permit 95RB422. Consequently, the draft Operating Permit contains NO<sub>x</sub> limits that are slightly higher than the emission levels experienced during the performance test. Ambient impacts resulting from these higher emission levels have been reviewed and are documented in the source file to demonstrate NAAQS compliance. Additionally, compliance with the NSPS fuel sulfur limit was not demonstrated during the performance test, although it is not likely that the NSPS limit was exceeded. The original operating permit application indicated that the Foundation Creek facility was in compliance with all applicable requirements. A revised compliance certification was submitted indicating that this unit was not in compliance because daily fuel sulfur monitoring was not initiated when the replacement turbine began operation. WEP stated in the 9/30/98 resubmittal that emission testing has demonstrated compliance with the emission limits listed on the most recent revised APEN.

**Unit P002 - Cooper Superior Model 6G825, Natural Gas Fired 4 Cycle Standard Rich Burn Internal Combustion Engine Site-Rated at 480 HP, Serial No. 273179**

Discussion:

**1. Applicable Requirements-** This source was installed in 1979. At that time Colorado Regulation No. 3 exempted internal combustion engines less than 1,000 horsepower in size from permitting requirements. Consequently, the only applicable requirements for this engine are a 20% opacity limitation and APEN reporting in accordance with Regulation No. 3, Part A.II.

**2. Emission Factors-** Emissions from this reciprocating engine are produced during the combustion process, and are dependent upon the air to fuel ratio adjustment and specific properties of the natural gas being burned. The pollutants of concern are nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO) and volatile organic compounds (VOCs). Small quantities of Hazardous Air Pollutants (HAPs) are also emitted when combustion is incomplete. The

applicant proposes to calculate NO<sub>x</sub>, CO and VOC emissions using emission factors that are equal to, or slightly higher than AP-42, Table 3.2-2. These emission factors are as follows:

<u>Pollutant</u>	<u>Emission Factor</u>	<u>Source</u>
NO <sub>x</sub>	15.0 g/hphr	Mfr data
CO	8.6 g/hphr	AP-42
VOC	1.25 g/hphr	AP-42

These emission factors are acceptable to the Division because the Division considers AP-42 factors to be default values.

**3. Monitoring Plan-** Conditions 2.1 through 2.4 of Section II of the Operating Permit list the monitoring and recordkeeping provisions necessary to verify compliance with applicable requirements for this engine. Specific monitoring guidance for internal combustion engines in attainment areas has been developed by the Division as shown on the attached grid titled "Compliance/Scenario Summary - Gas Fired IC Engines." This grid defines emission calculation and measurement of fuel use or operating hours as minimum requirements for this engine.

Emission calculation for fee purposes will be based on actual annual hours of operation, maximum engine horsepower and the emission factors listed above. The applicant will be required to conduct the emission calculation annually and submit a revised APEN to the Division if emissions increase as described in Regulation No. 3, Part A, Section II.C.2.

The opacity standard of 20% will be demonstrated by a certification that the engine has used natural gas exclusively during the reporting period. The Division has determined, based on AP-42 emission factors and engineering judgement, that particulate emissions from this engine will be insignificant if natural gas is used as the fuel.

**4. Compliance Status-** The applicant submitted certified information stating that this engine burns only natural gas. Since the only applicable requirement for this unit is the opacity limit, and since the combustion of natural gas satisfies that requirement, this unit is considered to be in compliance with all applicable requirements.

**Unit P003-Propak System Amine Heater Model H-410, Equipped With Two Identical Burners Rated at 4.5 MMBTU Each, Serial No. 84214-C**

Discussion:

**1. Applicable Requirements-** Prior to Title V application submittal, Colorado Emission Permit 84RB304 defined applicable requirements for this heater. Although a revised APEN was provided in the 9/30/98 resubmittal, revisions to the existing permit limits were not requested by the applicant. The terms contained in Permit 84RB304 are as follows:

<u>Parameter</u>	<u>Short Term Limit</u>	<u>Long Term Limit</u>
NOx	1.4 lbs/hr	6.0 tons/yr
CO	0.34 lbs/hr	1.5 tons/yr
Fuel Use	N/A	86.0 MMscf/yr

As mentioned above, the short term limits listed above will not be incorporated into the Operating Permit. The Regulation No. 1 particulate limit for fuel burning equipment will be the only short term limit included as an applicable requirement. The annual NOx and fuel use limitations and the 20% opacity limit will be incorporated into the Operating Permit. Because the annual emission limit for CO contained in Permit 84RB304 is less than APEN de minimis levels and there is a fuel use limitation, that limit will not be included in the draft Operating Permit.

**2. Emission Factors-** Emissions from this heater are produced during the combustion process, and are dependent upon certain operating parameters and specific properties of the natural gas being burned. The pollutants of concern are nitrogen oxides (NOx) and carbon monoxide (CO) and volatile organic compounds (VOCs). Small quantities of Hazardous Air Pollutants (HAPs) are also emitted when combustion is incomplete. The applicant proposes to calculate NOx emissions using an emission factor taken from Section 1.4 of AP-42. The emission factor proposed by the applicant is as follows:

<u>Pollutant</u>	<u>Emission Factor</u>	<u>Source</u>
NOx	100 lb/MMscf	AP-42

The emission factors presented in AP-42 are based on an assumed natural gas higher heating value of 1,020 Btu/scf. Because the heating value of the natural gas combusted at this facility is slightly higher (1,050-1,100 Btu/scf) than the AP-42 heating value, the emission factor will be expressed in lb/MMBtu to account for differences in gas heating value. The emission factors that will be used to calculate emissions from this source are as follows:

<u>Pollutant</u>	<u>Emission Factor</u>	<u>Source</u>
NOx	0.098 lb/MMBtu	Conversion

**3. Monitoring Plan-** Conditions 3.1 through 3.5 of Section II of the Operating Permit list the monitoring and recordkeeping provisions necessary to verify compliance with applicable requirements for this heater. Specific monitoring guidance for heaters in attainment areas has been developed by the Division as shown on the attached grid titled "Compliance/Scenario Summary - Gas Fired Boilers." This grid defines emission calculation and measurement of fuel use as the minimum requirements for this heater.

The applicant will be required to calculate emissions monthly using actual monthly fuel use and the fuel-based emission factors. Rolling twelve month emission and fuel use totals will be maintained for comparison with the annual emission and fuel use limits.

Emission calculation for fee purposes will be based on actual annual fuel use and the fuel-based emission factor. The applicant will be required to conduct the emission calculation annually and submit a revised APEN to the Division if emissions increase as described in Regulation No. 3, Part A, Section II.C.2.

Compliance with the opacity standard of 20% will be demonstrated by a certification that the heater has used natural gas exclusively during the reporting period. The Division has determined, based on AP-42 emission factors and engineering judgement, that particulate emissions from this heater will be insignificant if natural gas is used as the fuel.

**4. Compliance Status-** The applicant certified in the operating permit application that this heater was in compliance with all applicable requirements at the time of submittal. Using AP-42 emission factors, maximum fuel input and annual operating hours to calculate this source's potential to emit, the

construction permit emission limits cannot be exceeded. The use of natural gas satisfies the opacity and Regulation No. 1 particulate limits. Thus, this source is considered to be in compliance with all applicable requirements.

**Unit E004- Sivals Triethylene Glycol Regeneration Unit, Model GCP-750-450-EC, Serial Number 32.286, 0.75 MMBtu Per Hour, Rated at 19 MMSCF Per Day**

Discussion:

**1. Applicable Requirements-** The applicant had not reported emissions from this regeneration unit prior to submittal of the operating permit application. WFS submitted calculations estimating VOC emissions from this unit to be 174.7 tons per year. Consequently, permitting requirements apply to this source and Construction Permit 95RB617-1 was written, but never issued. WEP provided a revised APEN in their application resubmittal that requested a VOC limit of 200.0 tons per year. That emission limit and the throughput limitation listed in Permit 95RB617-1 have been directly incorporated into the draft Operating Permit under the combined construction/operating permit provisions of Regulation 3, Part C.

**2. Emission Factors -** Triethylene glycol is contacted with the natural gas stream to remove moisture. The glycol is then heated in the regeneration unit to drive off water, which also drives off VOCs that were absorbed from the gas stream. Combustion emissions from the heater, as estimated by AP-42, are typically very small and the heater is usually considered to be an insignificant activity. Emissions from the regeneration vent are typically predicted using the Gas Research Institute's GLYCalc Version 3.0 Model. Emissions of VOCs and associated HAPs are dependent on process operating parameters that are input into this model. These parameters include glycol recirculation rate, amount of gas processed, desired moisture content of the processed gas, and a breakdown of the constituents in the natural gas.

**3. Monitoring Plan -** WEP will use the GRI GLYCalc Version 3.0 or higher model to predict annual emissions of VOC and HAPs from the regeneration unit of this dehydrator in order to determine compliance with the VOC emission limit. Monthly recording of process operating parameters will be conducted as outlined in Condition 4.1 of Section II of the draft Operating Permit to insure accurate input to the GLYCalc model. Extended wet analysis of the gas to be processed will be required quarterly to verify the constituent composition in the

gas stream.

Permit 95RB617-1 required a performance test to verify compliance with the VOC emission limits. This requirement has been incorporated into the draft Operating Permit.

**4. Compliance Status** - The regenerator heater is considered to be an insignificant activity and the only requirements applicable to the heater are the 20 percent opacity and Regulation No. 1 particulate limits. Because this unit burns only natural gas, this heater is considered to be in compliance with each of those limits.

Emissions from the regenerator vent were previously not reported. Because there was not adequate emissions data available for this type of source until recently, the Division has determined that the failure to obtain a construction permit for emissions from an existing dehydrator vent is not considered noncompliance. As a result of the operating permit application submittal, an APEN was filed, a construction permit application was submitted and a construction permit was written. The applicable requirements from the construction permit have been incorporated into the draft Operating Permit. The emissions predicted by the GLYCalc modeling are consistent with the construction permit limits and the Division considers this source to be in compliance with all applicable requirements.

#### **Unit P005- Amine Regeneration Unit**

Discussion:

**1. Applicable Requirements**- The applicant had not reported emissions from the amine regeneration unit prior to submittal of the operating permit application. WFS submitted calculations estimating VOC emissions from this unit to be 50.3 tons per year. Consequently, permitting requirements apply to this source and Construction Permit 95RB617-3 was written, but never issued. WEP provided a revised APEN in their application resubmittal that requested a VOC limit of 64.0 tons per year. That emission limit and the throughput limitation listed in Permit 95RB617-3 have been directly incorporated into the draft Operating Permit under the combined construction/operating permit provisions of Regulation 3, Part C. Because the facility was a minor source when this unit was installed, PSD review was not triggered.

**2. Emission Factors** - Amine is contacted with the natural gas stream to remove carbon dioxide. The amine is then heated in the regeneration unit to drive off the carbon dioxide, which also drives off VOCs that were absorbed from the gas stream. Combustion emissions from the heater, as estimated by AP-42, are accounted for as Point S002. Emissions of VOCs and associated HAPs from the regeneration vent of this unit are based on stack test results of this amine unit. Those stack tests provided a VOC emissions result of 11.2 pounds per hour, which will be the factor used to estimate annual emissions for compliance and fee purposes. The annual emission limit listed in the draft Operating Permit is derived from this stack test result, with a 30% safety factor added, extrapolated to tons per year.

**3. Monitoring Plan** - WEP will use the pound per hour emission rate derived from the stack test, and the unit operating hours, to predict annual emissions of VOC and HAPs from the amine regeneration unit. In addition, permit 95RB617-3 required a performance test to verify compliance with the VOC emission limits. Since the compliance emission factor was derived from a stack test, this requirement has been satisfied.

**4. Compliance Status** - Emissions from the regenerator vent were previously not reported. Because there was not adequate emissions data available for this type of source until recently, the Division has determined that the failure to obtain a construction permit for emissions from an existing amine regenerator vent is not considered noncompliance. As a result of the operating permit application submittal, an APEN was filed, a construction permit application was submitted, and an Initial Approval construction permit was written. Consequently, the Division considers this source to be in compliance with all applicable requirements.

### **Unit P006- Ethylene Glycol Regeneration Unit and Heater**

Discussion:

**1. Applicable Requirements** - In the original submittal the applicant claimed that the heater for this unit qualifies as an insignificant activity, based on the quantity of emissions. The applicant did not provide emission calculations, but that is not required for each insignificant activity. The applicant also stated that emissions from the regenerator vent are small, but did not quantify them. WEP

provided a revised APEN in their application resubmittal of 9/30/98 that requested a VOC limit of 5.0 tons per year for this unit. That emission limit and a throughput limitation consistent with the information provided in the revised APEN have been incorporated into the draft Operating Permit.

The emission limit provided on the revised APEN assumed that the emissions from the dehydrator flash tank were routed through a flare. WEP attributed a 95% VOC control efficiency to this flare. The Division will require monitoring to ensure that this flare is operating effectively.

**2. Emission Factors** - Ethylene glycol is injected into the natural gas stream downstream of the triethylene glycol dehydrator and is recovered by flashing further downstream. Because the ethylene glycol is injected into dehydrated gas, very little additional water or hydrocarbons are absorbed.

Combustion emissions from the heater are typically very small and are usually estimated using factors from Section 1.4 of AP-42. Because the emissions are so small, the heater is usually considered to be an insignificant activity.

Emissions from the regeneration vent are typically predicted using the Gas Research Institute's GLYCalc Version 3.0 Model. Emissions of VOCs and associated HAPs are dependent on process operating parameters that are input into this model. These parameters include glycol recirculation rate, amount of gas processed, desired moisture content of the processed gas, and a breakdown of the constituents in the natural gas. The emissions predicted for this unit are based on the GLYCalc results, assuming the flash tank emissions are routed to the plant flare which has an assumed VOC destruction efficiency of 95 percent.

**3. Monitoring Plan** - WEP will use the GRI GLYCalc Version 3.0 or higher model to predict annual emissions of VOC and HAPs from the regeneration unit of this dehydrator in order to determine compliance with the VOC emission limit. Monthly recording of process operating parameters will be conducted as outlined in Condition 6.1 of Section II of the draft Operating Permit to insure accurate input to the GLYCalc model. Extended wet analysis of the gas to be processed will be required quarterly to verify the constituent composition in the gas stream.

**4. Compliance Status** - The regenerator heater is considered to be an

insignificant activity and the only requirements applicable to the heater are the 20 percent opacity and Regulation No. 1 particulate limits. Because this unit burns only natural gas, this heater is considered to be in compliance with each of those limits.

Emissions from the regenerator vent were previously not reported. The Division has determined that the failure to obtain a construction permit for emissions from an existing dehydrator vent is not considered noncompliance. As a result of the operating permit application submittal, an APEN was filed and emission and throughput limits will be incorporated into the draft Operating Permit. Consequently, the Division considers this source to be in compliance with all applicable requirements.

### **Unit P007- Facility Fugitive Emissions**

#### Discussion:

**1. Applicable Requirements** - The Division has determined that fugitive VOC emissions at gas compression or processing facilities must be calculated and evaluated in terms of appropriate permitting requirements. Facility fugitive emissions had not been reported prior to submittal of the original operating permit application. WFS submitted calculations estimating fugitive VOC emissions to be 104.8 tons per year. Consequently, Construction Permit 95RB617-2 was written, but never issued, which limited fugitive VOC emissions to 104.8 tons per year. It also defined a facility component count that was not to be exceeded. WEP provided a revised APEN in their application resubmittal that requested a VOC limit of 25.5 tons per year. That emission limit has been directly incorporated into the draft Operating Permit under the combined construction/operating permit provisions of Regulation 3, Part C. No specific component limit has been specified in the Operating Permit to allow flexibility under the VOC emission limitation.

Construction Permit 95RB617-2 recognized the existence of a pit type flare that controls relief valve emission releases. Emissions from the flare were not included in the VOC emissions limit contained in the permit and the flare was not specified as a required control device. Consequently, the flare will not be included as part of the Operating Permit for this emission unit.

This plant is considered to be an onshore natural gas processing facility as

defined in 40CFR60 Subpart KKK. This subpart contains requirements for inspection and monitoring of fugitive leaks at these facilities. The effective date for this subpart is January 20, 1984. Since the amine regeneration unit was constructed after that date, Subpart KKK applies to that unit.

**2. Emission Factors** - Emissions from this source consist of VOC leaks from equipment and associated piping and components at the facility. Emissions from leaking equipment and piping are estimated using facility component counts and EPA emission factors as described in the 1995 EPA document AProtocol for Equipment Leak Emission Estimates@.

**3. Monitoring Plan** - Conditions 7.1 through 7.3 of Section II of the Operating Permit lists the monitoring and recordkeeping provisions necessary to verify compliance with the applicable requirements. Specifically, Wildhorse Energy Partners must make an initial count of equipment components and then maintain an annual accounting of the number of all equipment components, by tracking all component additions and deletions, that could contribute to fugitive VOC leaks. The resulting leak calculation will be compared to the annual VOC limit to determine compliance.

**4. Compliance Status** - WFS submitted an Air Pollution Emission Notice (APEN) and construction permit application for this emission point. The facility did not indicate that they were out of compliance for failing to report this emission point. As a result of the operating permit application submittal, an APEN was filed and emission limits will be incorporated into the draft Operating Permit. Therefore, this source is considered to be currently in compliance with all applicable requirements.

#### IV. Insignificant Activities

Several insignificant activities were listed by the applicant in an introductory letter submitted with the operating permit application. These activities consist of lube oil, glycol, methanol, amine, condensate, propane and natural gas liquids storage tanks, and the triethylene glycol regeneration heater.

#### V. Alternative Operating Scenarios

The applicant did not request any alternative operating scenarios for this facility. However, based on scenarios requested by WEP for other facilities, an alternative operating scenario has been incorporated that provides for temporary or permanent replacement of compressor engines as a result of breakdown or periodic maintenance.

VI. Permit Shield

The regulation citations identified as not applicable to this source in Section III of the Operating Permit are based on a condensed version of the requested Permit Shield citations as submitted with the original application for this facility. The original list contained many citations that were clearly unnecessary for the shield. For example, the original application stated that incinerator regulations would not apply since this facility does not operate incinerators. It is the Division's opinion that the Shield should be reserved for regulations that might reasonably otherwise apply to equipment at the facility in question. Therefore, the review engineer decided that many of the requested shield items were unnecessary and so included only certain ones. The Division proposes that the requested list of citations be condensed to the list contained in Section III of the Operating Permit.

VII. Accidental Release Program - 112(r)

A provision under Part 70 of the Clean Air Act (amended) is the Accidental Release provisions of section 112(r). Under this program, EPA established a list of substances which pose the greatest risk of death or serious injury to humans or extreme harm to the environment. Additionally, a list of flammable substances and high explosives were set forth. Each substance was given a threshold or de minimis level by considering their individual toxicity, reactivity, volatility, flammability, explosiveness, and dispersiveness. Facilities using any of these substances in greater-than-threshold quantities are required to prepare and implement a Risk Management/Prevention Plan for those substances.

WFS, in the original Operating Permit application, indicated that this facility is subject to section 112(r) and that a prevention plan had not been prepared. WEP did not modify this information in the 9/30/98 resubmittal.