TECHNICAL REVIEW DOCUMENT
for
OPERATING PERMIT 95OPRB045

to be issued to:

Coastal Field Services Company
West Douglas Creek Station
Rio Blanco County
Source ID 1030032

Prepared August, 2000
By Cathy Rhodes

I. Purpose:

This document will establish the basis for decisions made regarding the applicable requirements, emissions factors, monitoring plan and compliance status of emission units covered by the operating permit proposed for this site. It is designed for reference during the review of the proposed permit by the EPA, the public, and other interested parties. This narrative is intended only as an adjunct for the reviewer and has no legal standing. The conclusions made in this report are based on information provided in the original application submittal March 1, 1995, and subsequent supplemental technical submittals.

Any revisions made to the underlying construction permits associated with this facility 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 facility is primarily classified as a natural gas compression facility defined under Standard Industrial Classification 4922. Gas is compressed to specification for transmission to sales pipelines using Internal Combustion Engines (ICE) to power compressor units. In addition, a glycol dehydrator is used to remove water from the gas stream.

The source indicated that 112(r) is not applicable to this facility.

The facility is located west of Colorado Highway 139 approximately 23 miles south of Rangely, Rio Blanco County, Colorado. Utah is an affected state within 50 miles of the facility. There are no Federal Class I areas within 100 Kilometers of the facility. Colorado National Monument and Dinosaur National Monument are Federal land areas within 100 kilometers of the facility. Although they are not Federal Class I areas, they have been designated by the State to have the same sulfur dioxide increment as a Federal Class I area.

The area in which the plant operates is designated as attainment for all federally regulated pollutants. This source is considered to be a minor source in an attainment area (Potential To Emit < 250 Tons/Year).The EPA promulgated Maximum Available Control Technology (MACT) standards for Oil and Natural Gas Production Facilities, and for Natural Gas Transmission and Storage Facilities on June 17, 1999. At this time, the facility is not a major source of HAPs, and is not subject to the MACT standards. The permittee submitted a notice of non-applicability to the Division.

Facility wide emissions (tons/year) are as follows:

Pollutant	Potential Emissions	Actual Emissions
NO_X	112	112
VOC	213	213
CO	112	112
HAPs	N/A	23

Potential emissions are from permit limits.HAPs consist mainly of benzene, toluene, and xylene. Actual emissions are based on the most recent reported APEN data.

III. Emission Sources:

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

S001 - Worthington, SLHC-10, S/N: G 2811, 1100 HP Natural Gas Fired ICE
S002, S003 and S004 - Cooper Bessemer GMVH-6, 1350 HP Natural Gas Fired ICEs, S/Ns: 47844, 47845, and 48078

Final approval Construction Permits 96RB347(1-4) were issued for these sources. Applicable requirements are as follows:

Construction Permits 99RB347(1-4)

- Limits opacity to 20%, except during certain operating conditions, when opacity shall not exceed 30% (Colorado Regulation No. 1, Section II.A.1 and 4)
- Limits emissions of NO_x, VOC, and CO on a twelve month rolling basis
- Limits consumption rate of natural gas on a rolling twelve month basis
- Requires stack heights of at least 32 feet

Emission Factors - Emission estimates are based on manufacturer's estimates.

Monitoring - The permittee will calculate monthly emissions based on actual fuel use. The Division has developed specific monitoring guidance for Internal Combustion engines located in attainment areas, as shown on the attached grid titled "Compliance/Scenario Summary - Gas Fired IC Engines." The emission factors proposed are below AP-42 factors, therefore, according to the monitoring grid, the source will be required to: conduct the emission calculations and record hours of operation on a rolling twelve month basis; monitor air/fuel ratio (millivolt reading) on a monthly basis; and perform quarterly portable monitoring. Compliance

with the opacity limits is assumed when natural gas is used as a fuel.

Compliance Status - The Division believes that these source were in compliance with all applicable requirements as of the date of operating permit application.

S006 - Fugitive VOC Emissions from Equipment Leaks

This source is grandfathered from construction permit requirements. The only applicable requirement is APEN reporting.

Emission Factors - Coastal has calculated emissions from equipment leaks based on emission factors from EPA's Protocol for Emission Leak Estimates (Table 2-6 (EPA 453/R-95-017)). Factors are multiplied by the number of components of each type (e.g. Compressor Seals) and the VOC weight percentage in the organic portion of the gas stream as determined in the most recent analysis. EPA factors are given in terms of Total Organic Compounds.

Monitoring Plan - The permittee will be required to conduct an initial count of valves, seals, etc. in order to verify levels of emissions based on the EPA Protocol within 90 days of the permit issuance date. Records shall be kept of all additions and deletions and a running tally maintained, and a "hard count" shall be conducted every five years. The emission factors are based on a leak detection and repair program, therefore, they must also document steps taken to repair or mitigate leaks discovered during the reporting period.

Compliance Status - This source is currently considered to be in compliance with all applicable requirements.

S007- Natco, S/N: 9090102-02 Glycol Dehydration Unit

Initial Approval Construction Permit 95RB994 was issued for this unit. A Final Approval self-certification was submitted in 1997. Applicable requirements are as follows.

Construction Permit 95RB994

- Limits processing of natural gas on a rolling twelve month basis
- Limits VOC emissions on a rolling twelve month basis

Emission Factors- Triethylene glycol is contacted with the natural gas stream to remove moisture. This mixture is heated in the still vent portion of the unit which drives off the water and some entrained VOCs. Emissions from this process are typically predicted using the Gas Research Institute's GlyCalc Version (3.0 or higher) Model. Emission factors of VOCs and various HAPs are dependent upon the variables input into this Model. These variables include glycol recirculation rate, cubic feet of gas processed, moisture content (dew point) of processed gas, and percentage breakdown by weight of constituents in the natural gas.

Monitoring Plan - The Gas Research Institute's manual for their GlyCalc Version (3.0 or higher) Model defines the wet gas (inlet) temperature, glycol recirculation rate, and gas BTEX content as the three critical inputs to the Model for triethylene glycol units. Changes to the gas flow rate and inlet pressure do not radically affect emissions from glycol dehydrators. Therefore, parametric monitoring of the inlet temperature, recirculation rate and BTEX content

will be required as part of the monitoring plan for this site as detailed in Condition 3.1 of Section II of the Operating Permit. Inlet pressure and flow rate will be held constant for modeling purposes. Modeling will only be required when the measured values for inlet temperature, recirculation rate and BTEX content do not meet the comparison criteria as related to the stipulated values in Condition 3.1 of the permit. The specific parameter values listed in the permit were supplied by Coastal and define a worst-case scenario for dehydrator emissions. Alternatively, the permittee may perform monthly GLYCalc calculations.

Compliance Status- This unit is currently considered to be in compliance with all applicable requirements.

III. Short Term Limits

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 with annual emission limits unless there is a specific condition in the permit restricting hours of operation. The construction permits for this facility contained no short term limits.

IV. Final Approval for Initial Construction Permits

Some Construction Permits that have not yet been issued Final Approval. Since these pieces of equipment will have been in operation for more than 180 days by the due date of the first semi-annual monitoring required by the operating permit, the Division will consider the Responsible Official certification submitted with that report to serve as the self-certification for Final Approval for these sources.

V. Emission Factors

From time to time published emission factors are changed based on new or improved data. A logical concern is what happens if the use of the new emission factor in a calculation results in a source being out of compliance with a permit limit. For this operating permit, the emission factors or emission factor equations included in the permit are considered to be fixed until changed by the permit. Factors dependent on the fuel sulfur content or heat content can not be fixed and will vary with the test results. The formula for determining the emission factors is, however, fixed. It is the responsibility of the permittee to be aware of changes in the factors, and to notify the Division in writing of impacts on the permit requirements when there is a change in factors. Upon notification, the Division will work with the permittee to address the situation.