



Colorado Department of Public Health and Environment

OPERATING PERMIT

Brush Cogeneration Partnership

First Issued: February 1, 2000

Renewed: July 1, 2009

Last Revised: October 5, 2011

AIR POLLUTION CONTROL DIVISION COLORADO OPERATING PERMIT

FACILITY NAME: Brush Cogeneration Partnership OPERATING PERMIT NUMBER
FACILITY ID: 0870027 **96OPMR153**
RENEWED: July 1, 2009
EXPIRATION DATE: July 1, 2014
MODIFICATIONS: See Appendix F of Permit

Issued in accordance with the provisions of Colorado Air Pollution Prevention and Control Act, 25-7-101 et seq. and applicable rules and regulations.

ISSUED TO: Brush Cogeneration Partnership
2575 Park Lane, Suite 200
Lafayette, CO 80026

PLANT SITE LOCATION:
1500 S. Clayton Street
Brush, Colorado 80723
Morgan County

INFORMATION RELIED UPON

Operating Permit Renewal Application
Received: July 30, 2008
And Additional Information Received: March 22, 2006, December 5, 2007 and May 14, 2008

Nature of Business: Electrical Power Cogeneration
Primary SIC: 4911

RESPONSIBLE OFFICIAL
Name: Jim Hinrichs
Title: Vice President, Power
VERESEN, Inc.
Phone: (619) 224-4747

FACILITY CONTACT PERSON
Name: Daniel Dunlap
Title: Director of EH & S,
Colorado Energy Management
Phone: (303) 607-5600

SUBMITTAL DEADLINES

Semi-Annual Monitoring Periods: July 1 - December 31, January 1 - June 30
Semi-Annual Monitoring Reports: Due on February 1, 2010 & August 1, 2010 and subsequent years
First Annual Compliance Period: July 1 - December 31
Subsequent Annual Compliance Period: January 1 - December 31
Annual Compliance Certification: Due on February 1, 2010 and subsequent years

Note that the Semi-Annual Monitoring Reports and Annual Compliance Certifications must be received at the Division office by 5:00 p.m. on the due date. Postmarked dates will not be accepted for the purposes of determining the timely receipt of those reports/certifications.

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SECTION I - General Activities and Summary

1. Permitted Activities

- 1.1 This facility consists of a cogeneration facility defined under Standard Industrial Classification 4911. One combustion turbine, which is equipped with a heat recovery steam generator (HRSG) and duct burner, produces electricity for sale. This combustion turbine/HRSG/duct burner is part of the Brush Cogeneration Facility. A separate Operating Permit has been issued for each operating company, however, for permitting purposes the Brush Cogeneration Facility is considered one stationary source. The combustion turbine serves a generator rated at 32 MW and is equipped with a dry low NO_x combustion system to reduce NO_x emissions. Waste heat from the combustion turbine flows through the HRSG (equipped with a duct burner to provide additional heat) to generate steam, which is used to drive a steam turbine (39 MW) to generate additional electricity. A diesel-fired internal combustion engine is used to start the turbine. There is also a cooling tower at the facility, which has emissions above APEN de minimis levels, and is therefore considered a significant emission unit and is included in Section II of this permit. The turbine at this facility is referred to as Brush 2 or GT-3.

In the past, waste heat from the HRSG also provided thermal energy to heat a local greenhouse complex. When waste heat from the HRSG was not available or inadequate to meet the demand, auxiliary boilers were used to provide heat to the greenhouse. Previously three of the auxiliary boilers were addressed in this permit. However, in August 2007, the auxiliary boilers were bought by a third party and a separate operating permit was issued for the greenhouse. In December 2009, the new greenhouse owner submitted a permit application requesting that the greenhouse be considered a separate source from the Brush Cogeneration Facility and that a construction permit be issued for the auxiliary boilers. The Division agreed that the greenhouse was considered a separate source from the Brush Cogeneration Facility.

The facility is located in a 90 acre industrial area shared with the greenhouse complex and is just south of Brush. The area in which the plant operates is designated as attainment for all criteria pollutants.

There are no affected states within 50 miles of the plant. The following Federal Class I designated areas are within 100 kilometers of the plant: None.

- 1.2 Until such time as this permit expires or is modified or revoked, the permittee is allowed to discharge air pollutants from this facility in accordance with the requirements, limitations, and conditions of this permit.
- 1.3 This Operating Permit incorporates the applicable requirements contained in the underlying construction permits, and does not affect those applicable requirements, except as modified during review of the application or as modified subsequent to permit issuance using the modification procedures found in Regulation No. 3, Part C. These Part C procedures meet all applicable substantive New Source Review requirements of Part B. Any revisions made using the provisions of Regulation No 3, Part C shall become new applicable requirements for

purposes of this operating permit and shall survive reissuance. Any requirements that were designated in the Compliance Order on Consent signed June 20, 2005 (No. 2004-033) as applicable requirements have been incorporated into this operating permit and shall survive reissuance as applicable requirements. This permit incorporates the applicable requirements (except as noted in Section II) from the following construction permits: 91MR934-1.

- 1.4 All conditions in this permit are enforceable by US Environmental Protection Agency, Colorado Air Pollution Control Division (hereinafter Division) and its agents, and citizens unless otherwise specified. **State-only enforceable conditions are:** Permit Condition Number(s): Section II, Conditions 1.14 (opacity) and Section IV - Conditions 3.d, 3.g (last paragraph), 14 and 18 (as noted)
- 1.5 All information gathered pursuant to the requirements of this permit is subject to the Recordkeeping and Reporting requirements listed under Condition 22 of the General Conditions in Section IV of this permit.

2. Alternative Operating Scenarios

- 2.1 The permittee shall be allowed to make the following changes to its method of operation without applying for a revision of this permit.
 - 2.1.1 No separate operating scenarios have been specified.

3. Prevention Of Significant Deterioration (PSD)

- 3.1 This source is located in an area designated attainment for all pollutants. It is a fossil fuel-fired steam electric plant of more than 250 million Btu per hour input and is categorized as a major stationary source (Potential to Emit \geq 100 Tons/Year). Future modifications at this facility resulting in a significant net emissions increase (see Reg 3, Part D, Sections II.A.26 and 42) for any pollutant as listed in Regulation No. 3, Part D, Section II.A.42 or a modification which is major by itself will result in the application of the PSD review requirements.
- 3.2 The following Operating Permits are associated with this facility for purposes of determining applicability of Prevention of Significant Deterioration regulations: 96OPMR171 (Colorado Power Partnership – Brush 1 and 3) and 00OPMR224 (BIV Generation Company, LLC – Brush 4).

4. Accidental Release Prevention Program (112(r))

- 4.1 Based on the information provided by the applicant, this facility is not subject to the provisions of the Accidental Release Prevention Program (section 112(r)) of the Federal Clean Air Act.

5. Compliance Assurance Monitoring (CAM)

5.1 The following emission points at this facility use a control device to achieve compliance with an emission limitation or standard to which they are subject and have pre-control emissions that exceed or are equivalent to the major source threshold. They are therefore subject to the provisions of the CAM program as set forth in 40 CFR Part 64, as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV:

None

6. Summary of Emission Units

6.1 The emissions units regulated by this permit are the following:

Facility Identifier	AIRS Stack Number	Description	Startup Date	Pollution Control Device
GT-3	004	General Electric PG6541B-MS6001B Natural Gas Combustion Turbine, Nominally Rated at 350 MMBtu/hr, SN: 296003, Equipped with One (1) Duct Burner, Nominally Rated at 240 MMBtu/hr.	January 1994	Dry Low NO _x Combustion Technology (Turbine)
	006	Detroit Diesel Model No. 12-71-TT, Diesel Fired Reciprocating Starter Engine, rated at 660 hp, SN: 12VA86777.	1995	Uncontrolled
S005	008	GEA Cooling Tower, Two Cell Counter Flow, 29,900 gallons/minute.	January 1994	Drift Eliminators

SECTION II - Specific Permit Terms

1. S001 - One Natural Gas Fired Turbine (Nominally Rated at 350 MMBtu/hr), One HRSG, One Natural Gas Fired Duct Burner (Nominally Rated at 240 MMBtu/hr) and One Diesel Fired Starter Engine (660 HP)

Brush 2 operates in combined cycle mode only (turbine exhaust routed to HRSG with duct burner to provide further heat). Note that the unit can be operated with or without fuel fired in the duct burner.

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor	Monitoring	
		Short Term	Long Term		Method	Interval
BACT Requirements	1.1	N/A	N/A	N/A	See Condition 1.1.	
PM	1.2.	N/A	5.1 tons/yr	See Condition 1.2.	Recordkeeping and Calculation	Monthly
		Turbine/HRSG/Duct Burner: 0.113 lbs/MMBtu			Fuel Restriction	Only Natural Gas is Used As Fuel
		N/A	5.1 tons/yr		Recordkeeping and Calculation	Monthly
PM ₁₀		N/A	5.1 tons/yr			
VOC		N/A	32 tons/yr			
SO ₂	1.3.	N/A	1.2 tons/yr	Turbine and Duct Burner: 0.0006 lbs/MMBtu Starter Engine: 55.3 lb/Mgallon	Recordkeeping and Calculation	Monthly
		Turbine only: 150 ppmvd @ 15% O ₂ OR Use of Fuel Which Contains Less than 0.8 Weight % Sulfur		NA	Fuel Restriction	See Condition 1.3.
		Turbine: 0.35 lbs/MMBtu				
		Engine: 0.8 lbs/MMBtu				

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor	Monitoring	
		Short Term	Long Term		Method	Interval
NO _x	1.4.	N/A	105.7 ton/yr	N/A	Continuous Emission Monitoring System	Continuously
		<u>All limitations are on a 1-hr average:</u> 21 ppmvd @ 15% O ₂ , except as provided for below During Periods of Startup and Shutdown: 50 ppmvd @ 15% O ₂ and 65 lbs/hr				
CO	1.5.	N/A	44 ton/yr	N/A	Continuous Emission Monitoring System	Continuously
		<u>All limitations are on a 1-hr average:</u> 20 ppmvd @ 15% O ₂ , except as provided for below During Periods of Startup and Shutdown: 250 ppmvd @ 15% O ₂ and 198 lbs/hr				
Fuel Usage	1.6.	N/A	Turbine and Duct Burner: 3,580 MMscf/yr Natural Gas	N/A	Fuel Meters	Duct Burner: Daily Turbine and Engine: Monthly
			Engine: 4000 gallons/yr #2 Diesel Fuel			
Continuous Emission Monitoring Requirements	1.7.	N/A	N/A	N/A	See Condition 1.7.	
Duct Burner: NSPS Recordkeeping Requirements	1.8.	Determination of Annual Capacity Factor		N/A	Monthly	Monthly
Sulfur Content of Natural Gas	1.9.	N/A	N/A	N/A	See Condition 1.9.	
Btu Content of Natural Gas	1.10.	N/A	N/A	N/A	ASTM Methods or In-Line Gas Chromatograph-	Monthly
NSPS General Provisions	1.11.	N/A	N/A	N/A	As required in the NSPS General Provisions	
Opacity	1.12.	Not to Exceed 20% Except as Provided for in 1.13		N/A	See Condition 1.12.	
Opacity	1.13.	For Certain Operational Activities - Not to Exceed 30%, for a Period or Periods Aggregating More than Six (6) Minutes in any 60 Consecutive Minutes		N/A	See Condition 1.13.	

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor	Monitoring	
		Short Term	Long Term		Method	Interval
State-Only Opacity	1.14.	Not to Exceed 20%		N/A	See Condition 1.14.	

1.1 The combustion turbine and duct burner are subject to the requirements of the Prevention of Significant Deterioration (PSD) Program.

1.1.1 Best Available Control Technology (BACT) shall be applied for control of Nitrogen Oxides (NO_x), Carbon Monoxide (CO) and Particulate Matter Emissions (PM and PM₁₀). BACT has been determined as follows:

1.1.1.1 BACT for NO_x has been determined to a dry low NO_x combustion system (DLN) for the combustion turbine and emission limits as identified in Condition 1.4.1 (Colorado Construction Permit 91MR934-1, final approval, dated December 15, 1994).

1.1.1.2 BACT for CO has been determined to be good combustion practices with the emission limits as identified in Condition 1.5.1 (Colorado Construction Permit 91MR934-1, final approval, dated December 15, 1994).

1.1.1.3 BACT for VOC has been determined to be good combustion practices.

1.1.1.4 BACT for PM and PM₁₀ has been determined to be use of pipeline quality natural gas.

1.2 PM, PM₁₀ and VOC emissions are subject to the following requirements:

1.2.1 **Total Emissions of PM, PM₁₀ and VOCs from the turbine, engine and duct burner** shall not exceed the limitations stated above (Colorado Construction Permit 91MR934-1, final approval, dated December 15, 1994, as modified under the provisions of Section I, Condition 1.3, based on the APEN submitted on March 14, 2003). Monthly emissions from each emission unit shall be calculated by the end of the subsequent month using the emission factors (EF) in the table below, the monthly fuel consumption (as determined by Condition 1.6) and for the turbine and duct burner the heat content of the natural gas (as determined by Condition 1.10) in the following equations:

Turbine and Duct Burner:

$$\text{tons/month} = \frac{(\text{EF, lbs/MMBtu}) \times (\text{Fuel Use, MMSCF/mo}) \times (\text{Heat Content of Fuel, MMBtu/MMSCF})}{2000 \text{ lbs/ton}}$$

Engine:

$$\text{tons/month} = \frac{(\text{EF, lbs/Mgal}) \times (\text{Fuel Use, Mgal/mo})}{2000 \text{ lbs/ton}}$$

Pollutant	Turbine and Duct Burner Emission Factors	Source of Emission Factor ¹	Engine Emission Factors	Source of Emission Factor
PM	0.0027 lb/MMBtu	January 7, 2002 Performance Test (average of 3 runs)	13.7 lb/Mgal	AP-42, Section 3.4 (dated 10/96), Table 3.4-1, converted to lb/Mgal based on diesel heat content of 137,000 Btu/gal. Weight percent sulfur presume to be 0.4%.
PM ₁₀	0.0027 lb/MMBtu		13.7 lb/Mgal	
SO ₂	0.0006 lb/MMBtu	Default Emission Factor from 40 CFR Part 75, Appendix D for Units Burning Pipeline Quality Natural Gas	55.3 lb/Mgal	
NO _x	CEM	N/A	438.4 lb/Mgal	
VOC	0.017 lb/MMBtu	January 7, 2002 Performance Test (Highest of 3 runs)	11.2 lb/Mgal	
CO	CEM	N/A	116.4lb/Mgal	

¹The performance test were conducted with both the turbine and the duct burner running.

Monthly emissions, from each emission unit shall be summed and used in a twelve month rolling total to monitor compliance with the annual limitations. Each month a new twelve month total shall be calculated using the previous twelve months data.

1.2.2 Particulate Matter (PM) emissions **from the turbine/HRSG/duct burner combination** shall not exceed the above limitations (Colorado Regulation No. 1, Section III.A.1). In the absence of credible evidence to the contrary, compliance with the particulate matter emission limits is presumed since only natural gas is permitted be used as fuel in the turbine and the duct burner.

Note that the numeric PM standards for were determined using the design heat input for the turbine (350 mmBtu/hr) and the duct burner (240 mmBtu/hr) in the following equation:

$$PE = \frac{PE_T \times FI_T + PE_{DB} \times FI_{DB}}{FI_T + FI_{DB}}$$

Where $PE = 0.5 \times (FI)^{-0.26}$
 PE = particulate standard in lbs/mmBtu
 FI = fuel input in mmBtu/hr

Note that if unit is operated without fuel fired in the duct burner, the PM emission limitation is 0.109 lb/mmBtu, which is based on PE_T only.

1.3 Sulfur Dioxide (SO₂) emissions shall not exceed the following limitations:

1.3.1 **Total Sulfur Dioxide (SO₂) emissions from the turbine, duct burner and starter engine** shall not exceed the above limitation (Colorado Construction Permit 91MR934-1, final approval, dated December 15, 1994, as modified under the provisions of Section I, Condition 1.3, based on the APEN submitted on March 14, 2003). Monthly emissions from the turbine/HRSG/duct burner combination shall be calculated by the end of the subsequent month using the emissions factor (EF) and equations identified in Condition 1.2.1, the monthly fuel consumption (as determined by Condition 1.6) and for the turbine and duct burner the heat content of the natural gas (as determined by Condition 1.10). Monthly emissions from each emission unit shall be summed together and used in a twelve month rolling total to monitor compliance with the annual limitation. Each month a new twelve month total shall be calculated using the previous twelve months data.

1.3.2 The turbine shall meet one of the following requirements:

1.3.2.1 Sulfur Dioxide (SO₂) emissions from the turbine shall not exceed 150 ppmvd at 15% O₂,

OR

1.3.2.2 No fuel, which contains sulfur in excess of 0.8 percent by weight, shall be used in this combustion turbine (40 CFR Part 60 Subpart GG §§ 60.333(a) & (b), as adopted by reference in Colorado Regulation No. 6, Part A).

In the absence of credible evidence to the contrary, compliance with the above requirements is presumed since only pipeline quality natural gas is permitted to be used as fuel. The pipeline quality natural gas used as fuel shall meet the requirements in Condition 1.9.

1.3.3 Sulfur Dioxide (SO₂) emissions **from the turbine** shall not exceed 0.35 lbs/MMBtu, on a 3-hr rolling average (Colorado Regulation No. 1, Section VI.B.4.c.(ii) and VI.B.2). In the absence of credible evidence to the contrary, compliance with the SO₂ limitations is presumed since only pipeline quality natural gas is permitted to be used as fuel in this turbine. The pipeline quality natural gas used as fuel shall meet the requirements in Condition 1.9.

1.3.4 Sulfur Dioxide (SO₂) emissions **from the starter engine** shall not exceed 0.8 lbs/mmBtu (Colorado Regulation No. 1, Section VI.B.4.b.(i)). In the absence of credible evidence to the contrary, compliance with the SO₂ limitation is presumed, since only diesel fuel is permitted to be used as fuel.

Note that based on the emission factor identified in the table in Condition 1.2.1, compliance with the SO₂ emission limitation is achieved as long as the heat content of the diesel fuel is not less than 39,000 Btu/gal. Typically the heat content of diesel fuel is 140,000 Btu/gal.

1.4 Emissions of Nitrogen Oxides (NO_x) shall not exceed the following limitations:

1.4.1 **Total** emissions of NO_x **from the turbine, starter engine and duct burner** shall not exceed the above limitations (Colorado Construction Permit 91MR934-1, final approval, dated December 15, 1994, as modified under the provisions of Section I, Condition 1.3, based on the APEN submitted on March 14, 2003). Monthly emissions from the turbine and duct burner shall be determined using the continuous emission monitor required by Condition 1.7. Monthly emissions from the starter engine shall be calculated using the emission factor and equation identified in Condition 1.2.1 and the monthly fuel consumed in the engine as determined by Condition 1.6. Monthly emissions from the turbine, engine and duct burner shall be summed and a twelve month rolling total of emissions shall be maintained to monitor compliance with the annual emission limitation. Each month a new twelve month total shall be calculated using the previous twelve months data.

1.4.2 For purposes of BACT Nitrogen Oxides (NO_x) emissions **from the turbine duct/HRSG/burner combination** shall not exceed the following limitations (Colorado Construction Permit 91MR934-1, final approval, dated December 15, 1994, as modified under the provisions of Section I, Condition 1.3):

1.4.2.1 Except as provided for below, emissions of NO_x shall not exceed 21 ppmvd at 15% O₂, on a 1-hour average.

1.4.2.2 During startup and shutdown, emissions of NO_x shall not exceed 50 ppmvd at 15% O₂ and 65 lbs/hr, both on a 1-hour average. In the event that emissions of NO_x exceed 50 ppmvd at 15% O₂, it shall be considered a violation of the NO_x BACT emissions limit if NO_x emissions exceed 65 lbs/hr and not a violation if emissions are less than or equal to 65 lbs/hr.

1.4.2.3 “Startup” means the setting in operation of any air pollution source for any purpose. Setting in operation for this turbine is defined as the period beginning with insertion of fuel into the turbine to when the gross MW (combustion turbine and steam turbine) is equal to or greater than 40 MW.

1.4.2.4 “Shutdown” means the cessation of operation of any air pollution source for any purpose. The cessation of operation for this turbine begins when the order to shutdown the unit is received and the gross power output (combustion turbine and steam turbine) is less than or equal to 40 MW and ends when fuel flow to the gas turbine stops (the gas valve is closed).

Compliance with the NO_x BACT limitations shall be monitored using the continuous emission monitoring system required by Condition 1.7. The emission limitation in Conditions 1.4.2.1 begins with the first full clock hour of operation after startup is complete and continues until the last full clock hour prior to shutdown.

1.5 Emissions of Carbon Monoxide (CO) shall not exceed the following limitations:

- 1.5.1 **Total emissions of CO from the turbine, starter engine and duct burner** shall not exceed the above limitations (Colorado Construction Permit 91MR934-1, final approval, dated December 15, 1994, as modified under the provisions of Section I, Condition 1.3, based on the APEN submitted on March 14, 2003). Monthly emissions from the turbine and duct burner shall be determined using the continuous emission monitor required by Condition 1.7. Monthly emissions from the starter engine shall be calculated using the emission factor and equation identified in Condition 1.2.1 and the monthly fuel consumed in the engine as determined by Condition 1.6. Monthly emissions from the turbine, engine and duct burner shall be summed and a twelve month rolling total of emissions shall be maintained to monitor compliance with the annual emission limitation. Each month a new twelve month total shall be calculated using the previous twelve months total.
- 1.5.2 For BACT purposes, Carbon Monoxide emissions **from the turbine/HRSG/duct burner combination** shall not exceed the following limitations (Colorado Construction Permit 91MR934-1, final approval, dated December 15, 1994, as modified under the provisions of Section I, Condition 1.3):
- 1.5.2.1 Except as provided for below, emissions of CO shall not exceed 20 ppmvd at 15% O₂, on a 1-hour average.
- 1.5.2.2 During periods of startup and shutdown, emissions of CO shall not exceed 250 ppmvd at 15% O₂ and 198 lbs/hr, both on a 1-hour average. In the event that emissions of CO exceed 250 ppmvd at 15% O₂, it shall be considered a violation of the CO BACT emissions limit if CO emissions exceed 198 lbs/hr and not a violation if emissions are less than or equal to 198 lbs/hr.
- 1.5.2.3 Startup and shutdown are defined in Conditions 1.4.2.3 and 1.4.2.4
- Compliance with the CO BACT limits shall be monitored the using the continuous emission monitoring system required by Condition 1.7. The emission limit in Condition 1.5.2.1 begins with the first full clock hour of operation after startup is complete and continues until the last full clock hour prior to shutdown.
- 1.6 Fuel consumption shall not exceed the limitations stated above (Colorado Construction Permit 91MR934-1, final approval, dated December 15, 1994, as modified under the provisions of Section I, Condition 1.3, based on the APEN submitted on March 14, 2003). Fuel consumed by the turbine and the starter engine shall be monitored and recorded monthly using fuel meters and other records as necessary. Fuel consumed by the duct burner shall be recorded daily, as required by 40 CFR Part 60 Subpart Db § 60.49b(d), as adopted by reference in Colorado Regulation No 6, Part A. Monthly quantities of fuel consumed by the turbine and the duct burner shall be summed and used in a rolling twelve month total to monitor compliance with the annual limitation. Monthly quantities of fuel consumed by the starter engine shall be used in a separate twelve month rolling total to monitor compliance with the annual limitation. Each

month a new twelve month rolling total for fuel consumed in the turbine and duct burner and fuel consumed in the starter engine shall be calculated using the previous twelve months data.

- 1.7 The exhaust stack shall be equipped with a continuous emission monitoring system to measure and record the following:
 - 1.7.1 Concentration of Oxides of Nitrogen, ppmvd @ 15% O₂, hourly average;
 - 1.7.2 Emission rate of Oxides on Nitrogen, pounds per hour, tons per 12-month period;
 - 1.7.3 Concentration of Carbon Monoxide, ppmvd @ 15% O₂, hourly average;
 - 1.7.4 Emission rate of Carbon Monoxide, pounds per hour, tons per 12-month period; and
 - 1.7.5 Gross output, in MW.

The continuous emission monitors shall meet the requirements in Condition 3 of this permit.

- 1.8 Daily fuel consumption records (Condition 1.6) shall be used to calculate the annual capacity factor of the duct burner. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month (40 CFR Part 60 Subpart Db § 60.49b(d), as adopted by reference in Colorado Regulation No. 6, Part A).
- 1.9 The permittee shall maintain records demonstrating that the natural gas burned meets the definition of pipeline quality natural gas as defined in 40 CFR Part 72 (0.5 grains or less of total sulfur per 100 standard cubic feet). The demonstration shall be made using any of the methods identified in 40 CFR Part 75, Appendix D, Section 2.3.1.4. These records shall be made available to the Division upon request.
- 1.10 The Btu content of natural gas used to fuel this equipment shall be determined monthly using the appropriate ASTM Methods or equivalent, if approved by the Division in advance. In lieu of collecting a sample, the Btu content of the natural gas may be determined using the in-line gas chromatograph to determine the gas composition and the appropriate GPA standard to calculate the Btu content. The Btu content shall be calculated using the average composition of the gas as determined by the in-line gas chromatograph for the month.

If sampling is conducted, calculation of monthly emissions outlined under Conditions 1.2.1 and 1.3.1 shall be based on the most recent required analysis. The Btu content shall be based on the saturated gross heating value (HHV) of the fuel.

If the gas chromatograph is used, calculation of monthly emissions outlined under Conditions 1.2.1 and 1.3.1 shall be based on the average Btu content for that month as determined by the gas chromatograph. The Btu content shall be based on the saturated gross heating value (HHV) of the fuel in accordance with the appropriate GPA method.

1.11 Regulation No. 6, Part A, Subpart A, General Provisions applies as follows:

1.11.1 No article, machine, equipment or process shall be used to conceal an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gasses discharged to the atmosphere. (40 CFR Part 60 Subpart A § 60.12)

1.11.2 At all times, including periods of startup, shutdown, and malfunction, owners and operators shall to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source (Colorado Construction Permit 91MR934-1, final approval, dated December 15, 1994 and 40 CFR Subpart A § 60.11(d)).

1.12 Except as provided for in Condition 1.13 below, no owner or operator of a source shall allow or cause the emission into the atmosphere of any air pollutant which is in excess of 20% opacity (Colorado Construction Permit 91MR934-1, final approval, dated December 15, 1994 and Colorado Regulation No. 1, Section II.A.1). This opacity standard applies to **the turbine/HRSG/duct burner combination and starter engine**.

Compliance with this requirement shall be monitored as follows:

1.12.1 **For the turbine/HRSG/duct burner combination:** In the absence of credible evidence to the contrary, compliance with the 20% opacity limit shall be presumed since only natural gas is permitted to be used as fuel for these units.

1.12.2 **For the starter engine:** Continued operation of the engine after the completion of the startup period shall require at least one opacity observation for each calendar day of operation. If the startup and operation is for a period that lasts less than a total of 4 hours from engine start to engine stop, no opacity observations are required. All opacity observations shall be performed by an observer with current and valid Method 9 certification. Results of Method 9 readings and a copy of the certified Method 9 reader's certification shall be made available to the Division upon request.

1.13 No owner or operator of a source shall allow or cause to be emitted into the atmosphere any air pollutant resulting from the building of a new fire, cleaning of fire boxes, soot blowing, start-up, process modifications, or adjustment or occasional cleaning of control equipment which is in excess of 30% for a period or periods aggregating more than six (6) minutes in any sixty (60) consecutive minutes (Colorado Construction Permit 91MR933, initial approval, modification 4, dated October 26, 1999 and Colorado Regulation No. 1, Section II.A.4). This opacity standard

applies to **the turbine/HRSG/duct burner combination and starter engine**. Compliance with this requirement shall be monitored as follows:

- 1.13.1 **For the turbine and/or turbine/duct burner combination:** In the absence of credible evidence to the contrary, compliance with the 30% opacity limit shall be presumed since only natural gas is permitted to be used as fuel for these units.
- 1.13.2 **For the starter engine:** An engine startup period of less than 60 minutes shall not require a startup opacity observation. If the engine startup period is greater than 60 minutes, one opacity observation shall be made for each consecutive 4 hour period of startup during daylight hours. In addition, a record shall be kept of the date and time the engine started and when it was shutdown. All opacity observations shall be performed by an observer with current and valid Method 9 certification. Results of Method 9 readings and a copy of the certified Method 9 reader's certification shall be made available to the Division upon request.
- 1.14 **State-Only Requirement:** No owner or operator may discharge, or cause the discharge into the atmosphere of any particulate matter which is greater than 20% opacity (Colorado Regulation No. 6, Part B, Section II.C.3). This opacity standard applies to **the turbine/HRSG/duct burner combination**. In the absence of credible evidence to the contrary, compliance with the 20% opacity requirement is presumed since only natural gas is permitted to be used as fuel for these units.

Note that this opacity standard applies at all times except during periods of startup, shutdown and malfunction (40 CFR Part 60 Subpart A § 60.11(c), as adopted by reference in Colorado Regulation No. 6, Part B, Section I.A).

Note that this opacity requirement is more stringent than the opacity requirement in Condition 1.13 during periods of building of a new fire, cleaning of fire boxes, soot blowing, process modifications and adjustment or occasional cleaning of control equipment.

2. S005 - GEA Cooling Tower

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor	Monitoring	
		Short Term	Long Term		Method	Interval
PM	2.1	NA	4.4 tons/yr	See Condition 2.1	Recordkeeping and Calculations	Monthly
PM ₁₀		NA	4.4 tons/yr			
Water Circulation	2.2	NA	14,352 MMgal/yr	NA	Pump Run Time	Monthly
Total Dissolved Solids (TDS)	2.3	NA	NA	NA	Approved Analysis Method	Monthly
Opacity	2.4.	Not to Exceed 20%		N/A	See Condition 2.4.	

2.1 PM and PM₁₀ emissions from the cooling tower shall not exceed the above limitations (as provided for under the provisions of Colorado Regulation No. 3, Part C, Sections I.A.7 and X, based on the APEN submitted on March 14, 2003). Monthly emissions shall be calculated by the end of the subsequent month using the following equation:

$$PM = PM_{10} \text{ (tons/month)} = \frac{Q \times d \times \% \text{ drift} \times 31.3\% \text{ drift dispersed} \times \text{total solids concentration}}{2000 \text{ lbs/ton}}$$

Where: Q = water circulated, gal/month as determined by Condition 2.2
 d = density of water, lbs/gal (from T5 application d = 8.34 lbs/gal)
 % drift = 0.02%
 31.3% drift dispersed (from EPA-600/7-79-251a, November 1979, "Effects of Pathogenic and Toxic Materials Transported Via Cooling Device Drift - Volume1 - Technical Report", Page 63)
 Total solids concentration (ppm) = measured specific conductivity x 0.67 - to be determined by Condition 2.3.

A twelve month rolling total shall be maintained to monitor compliance with the annual limitations. Each month a new twelve month total shall be calculated using the previous twelve months data.

2.2 Circulation of water shall not exceed the limitations above (as provided for under the provisions of Colorado Regulation No. 3, Part C, Sections I.A.7 and X, based on the APEN submitted on march 14, 2003, Worst Case based on 29,900 gallons per min and 8,000 hr/yr). The quantity of water circulated shall be determined each month by multiplying the hours of operation of each pump by the design flow rate of each pump as follows:

$$\text{Water Circulation Rate} = \text{pump run time (hrs/yr)} \times \text{Design Flow Rate (Gal/min)} \times 60 \text{ min/hr}$$

(Note pump run time is based on steam turbine hours of operation)

Monthly quantities of water circulated shall be used in the emission calculations identified in Condition 2.1. Monthly quantities of water circulated shall be used in a twelve month rolling

total to monitor compliance with the annual limitation. Each month, a new twelve month total shall be calculated using the previous twelve months data.

- 2.3 Total solids concentration shall be determined monthly using the measured monthly specific conductivity multiplied by 0.67. The monthly total solids concentration shall be used to calculate monthly emissions as required by Condition 2.1. A copy of the procedures used to obtain the specific conductivity measurement shall be maintained and made available to the Division upon request.
- 2.4 No owner or operator of a source shall allow or cause the emission into the atmosphere of any air pollutant which is in excess of 20% opacity (Colorado Regulation No. 1, Section II.A.1). In the absence of credible evidence to the contrary, compliance with the opacity standard shall be presumed, provided the drift eliminators on the tower are maintained and operated in accordance with manufacturers' requirements and good engineering practices.

3. Continuous Emission Monitoring Requirements

3.1 Equipment and QA/QC Requirements

3.1.1 Except as provided for below, the continuous emission monitoring systems are subject to the requirements of 40 CFR Part 60 (Colorado Construction permit 91MR934-1, final approval, December 15, 1994). The monitoring systems shall meet the equipment, installation and performance specifications of 40 CFR Part 60 Appendix B, Performance Specification 2 (NO_x monitors – ppm), 4/4A (CO monitors – ppm) and 6 (CO and NO_x – lbs/hr). These CEMS are subject to the quality assurance/quality control requirements in 40 CFR Part 60 Appendix F and Subpart A § 60.13.

3.1.1.1 Pursuant to 40 CFR Part 60 Subpart A § 6013(e)(2) and 40 CFR Part 75 § 75.10(d), the permittee will continue to record CEMS data for each unit for every quadrant of the hour in which that unit is operating. The permittee shall continue to employ the data validation methods set forth in 40 CFR Part 75 and report all exceedances of the applicable NO_x and CO limits that occur during valid hours (Compliance Order on Consent, No. 2004-033, paragraph 15, effective June 20, 2005).

3.1.2 The quality assurance/quality control plan for the continuous emissions monitoring systems shall be prepared in accordance with the requirements in 40 CFR Part 60, Appendix F. The quality assurance/quality control plan shall be made available to the Division upon request. Revisions shall be made to the plans at the request of the Division.

3.2 General Provisions

- 3.2.1 The permittee shall ensure that all continuous emission monitoring systems required are in operation and monitoring unit emissions or opacity at all times except for monitoring system breakdowns, repairs, calibration checks and zero and span adjustments required under 40 CFR Part 60 Subpart A § 60.13(d) (40 CFR Part 60 Subpart A § 60.13(e)).
- 3.2.2 Alternative monitoring systems, alternative reference methods, or any other alternatives for the required continuous emission monitoring systems shall not be used without having obtained prior written approval from the appropriate agency, either the Division or the U. S. EPA, depending on which agency is authorized to approve such alternative under applicable law. Any alternative continuous emission monitoring systems or continuous opacity monitoring systems must be certified in accordance with the requirements of 40 CFR Part 60 prior to use.
- 3.2.3 All test and monitoring equipment, methods, procedures and reporting shall be subject to the review and approval by the appropriate agency, either the Division or the U. S. EPA, depending on which agency is authorized to approve such item under applicable law, prior to any official use. The Division shall have the right to inspect such equipment, methods and procedures and data obtained at any time. The Division may provide a witness(s) for any and all tests as Division resources permit.
- 3.2.4 A file suitable for inspection shall be maintained of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by applicable portions of 40 CFR Part 60 Subpart A and Appendices B and F. This file may be in a hardcopy format, electronic format, or combination of these two methods.
- 3.2.5 Records shall be maintained of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the source; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative (40 CFR Part 60 Subpart A § 60.7(b)).
- 3.3 Recordkeeping and Reporting Requirements
- 3.3.1 The owner or operator of a facility required to install, maintain, and calibrate continuous monitoring equipment shall submit to the Division, by the end of the calendar month following the end of each calendar quarter, a report of excess emissions for all pollutants monitored for that quarter (40 CFR Part 60 Subpart A § 60.7(c)). This report shall consist of the following information and/or reporting requirements as specified by the Division:
- 3.3.1.1 The magnitude of excess emissions computed in accordance with 40 CFR

Part 60 Subpart A § 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions and the process operating time during the reporting period (40 CFR Part 60 Subpart A § 60.7(c)(1)).

- 3.3.1.2 Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted (40 CFR Part 60 Subpart A § 60.7(c)(2)).
- 3.3.1.3 The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments (40 CFR Part 60 Subpart A § 60.7(c)(3)).
- 3.3.1.4 When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report (40 CFR Part 60 Subpart A § 60.7(c)(4)).

- 3.3.2 The owner or operator of a facility required to install, maintain, and calibrate continuous monitoring equipment shall submit to the Division, by the end of the calendar month following the end of each calendar quarter, a summary report for that quarter (40 CFR Part 60 Subpart A § 60.7(c)). One summary report form shall be submitted for each pollutant monitored. This report shall contain the information and be presented in a format approved by the Division.

If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and continuous monitoring system (CMS) downtime is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in Condition 3.3.1 need not be submitted unless required by the Division (40 CFR Part 60 Subpart A § 60.7(d)(1)).

If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in Condition 3.3.1 shall both be submitted (40 CFR Part 60 Subpart A § 60.7(d)(1)).

SECTION III - Permit Shield

Regulation No. 3, 5 CCR 1001-5, Part C, §§ I.A.4; V.D., & XIII.B; § 25-7-114.4(3)(a), C.R.S.

1. Specific Non-Applicable Requirements

Based upon the information available to the Division and supplied by the applicant, the following parameters and requirements have been specifically identified as non-applicable to the facility to which this permit has been issued. This shield does not protect the source from any violations that occurred prior to or at the time of permit issuance. In addition, this shield does not protect the source from any violations that occur as a result of any modification or reconstruction on which construction commenced prior to permit issuance

No requirements have been specifically identified as non-applicable for this facility.

2. General Conditions

Compliance with this Operating Permit shall be deemed compliance with all applicable requirements specifically identified in the permit and other requirements specifically identified in the permit as not applicable to the source. This permit shield shall not alter or affect the following:

- 2.1 The provisions of §§ 25-7-112 and 25-7-113, C.R.S., or § 303 of the federal act, concerning enforcement in cases of emergency;
- 2.2 The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
- 2.3 The applicable requirements of the federal Acid Rain Program, consistent with § 408(a) of the federal act;
- 2.4 The ability of the Air Pollution Control Division to obtain information from a source pursuant to § 25-7-111(2)(I), C.R.S., or the ability of the Administrator to obtain information pursuant to § 114 of the federal act;
- 2.5 The ability of the Air Pollution Control Division to reopen the Operating Permit for cause pursuant to Regulation No. 3, Part C, § XIII.
- 2.6 Sources are not shielded from terms and conditions that become applicable to the source subsequent to permit issuance.

3. Streamlined Conditions

The following applicable requirements have been subsumed within this operating permit using the pertinent streamlining procedures approved by the U.S. EPA. For purposes of the permit shield, compliance with the listed permit conditions will also serve as a compliance demonstration for purposes of the associated subsumed requirements.

Permit Condition	Streamlined (Subsumed) Requirements
Section II, Condition 1.4.2	40 CFR Part 60, Subpart GG § 60.332(b) (as adopted by reference in Regulation No. 6, Part A, Subpart GG) [Nitrogen Oxide emissions shall not exceed 190 ppmvd at 15% oxygen and ISO standard day conditions]
Section II, Condition 1.9	40 CFR Part 60, Subpart GG § 60.334(h)(3) (as adopted by reference in Regulation No. 6, Part A, Subpart GG) [monitor sulfur content of fuel]
Section II, Condition 3.3	40 CFR Part 60, Subpart GG § 60.334(j)(1)(iii) (as adopted by reference in Regulation No. 6, Part A, Subpart GG) [NO _x excess emission reporting]
Section II, Condition 1.4.2	40 CFR Part 60 Subpart Db §§ 60.44b(a)(4)(i), (h) & (i), as adopted by reference in Colorado Regulation No. 6, Part A [NO _x emissions shall not exceed 0.20 lb/mmBtu, on a 30-day rolling average, applies at all times, including periods of startup, shutdown and malfunction]
Section II, Condition 1.2.2	Regulation No. 6, Part B, Section II.C.2 [particulate matter standard]
Section II, Condition 1.3.3	Regulation No. 6, Part B, Section II.D.3.b [sulfur dioxide standard]
Section IV, Conditions 22.b and c	40 CFR Part 60 Subpart Db § 60.49b(o) [retain records for 2 yrs]

SECTION IV - General Permit Conditions

11/16/10 version

1. Administrative Changes

Regulation No. 3, 5 CCR 1001-5, Part A, § III.

The permittee shall submit an application for an administrative permit amendment to the Division for those permit changes that are described in Regulation No. 3, Part A, § I.B.1. The permittee may immediately make the change upon submission of the application to the Division.

2. Certification Requirements

Regulation No. 3, 5 CCR 1001-5, Part C, §§ III.B.9., V.C.16.a.& e. and V.C.17.

- a. Any application, report, document and compliance certification submitted to the Air Pollution Control Division pursuant to Regulation No. 3 or the Operating Permit shall contain a certification by a responsible official of the truth, accuracy and completeness of such form, report or certification stating that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.
- b. All compliance certifications for terms and conditions in the Operating Permit shall be submitted to the Air Pollution Control Division at least annually unless a more frequent period is specified in the applicable requirement or by the Division in the Operating Permit.
- c. Compliance certifications shall contain:
 - (i) the identification of each permit term and condition that is the basis of the certification;
 - (ii) the compliance status of the source;
 - (iii) whether compliance was continuous or intermittent;
 - (iv) method(s) used for determining the compliance status of the source, currently and over the reporting period; and
 - (v) such other facts as the Air Pollution Control Division may require to determine the compliance status of the source.
- d. All compliance certifications shall be submitted to the Air Pollution Control Division and to the Environmental Protection Agency at the addresses listed in Appendix D of this Permit.
- e. If the permittee is required to develop and register a risk management plan pursuant to § 112(r) of the federal act, the permittee shall certify its compliance with that requirement; the Operating Permit shall not incorporate the contents of the risk management plan as a permit term or condition.

3. Common Provisions

Common Provisions Regulation, 5 CCR 1001-2 §§ II.A., II.B., II.C., II.E., II.F., II.I, and II.J

- a. To Control Emissions Leaving Colorado

When emissions generated from sources in Colorado cross the State boundary line, such emissions shall not cause the air quality standards of the receiving State to be exceeded, provided reciprocal action is taken by the receiving State.

b. Emission Monitoring Requirements

The Division may require owners or operators of stationary air pollution sources to install, maintain, and use instrumentation to monitor and record emission data as a basis for periodic reports to the Division.

c. Performance Testing

The owner or operator of any air pollution source shall, upon request of the Division, conduct performance test(s) and furnish the Division a written report of the results of such test(s) in order to determine compliance with applicable emission control regulations.

Performance test(s) shall be conducted and the data reduced in accordance with the applicable reference test methods unless the Division:

- (i) specifies or approves, in specific cases, the use of a test method with minor changes in methodology;
- (ii) approves the use of an equivalent method;
- (iii) approves the use of an alternative method the results of which the Division has determined to be adequate for indicating where a specific source is in compliance; or
- (iv) waives the requirement for performance test(s) because the owner or operator of a source has demonstrated by other means to the Division's satisfaction that the affected facility is in compliance with the standard. Nothing in this paragraph shall be construed to abrogate the Commission's or Division's authority to require testing under the Colorado Revised Statutes, Title 25, Article 7, and pursuant to regulations promulgated by the Commission.

Compliance test(s) shall be conducted under such conditions as the Division shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Division such records as may be necessary to determine the conditions of the performance test(s). Operations during period of startup, shutdown, and malfunction shall not constitute representative conditions of performance test(s) unless otherwise specified in the applicable standard.

The owner or operator of an affected facility shall provide the Division thirty days prior notice of the performance test to afford the Division the opportunity to have an observer present. The Division may waive the thirty day notice requirement provided that arrangements satisfactory to the Division are made for earlier testing.

The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

- (i) Sampling ports adequate for test methods applicable to such facility;
- (ii) Safe sampling platform(s);
- (iii) Safe access to sampling platform(s); and
- (iv) Utilities for sampling and testing equipment.

Each performance test shall consist of at least three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic mean of results of at least three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other

circumstances beyond the owner or operator's control, compliance may, upon the Division's approval, be determined using the arithmetic mean of the results of the two other runs.

Nothing in this section shall abrogate the Division's authority to conduct its own performance test(s) if so warranted.

d. Affirmative Defense Provision for Excess Emissions during Malfunctions

Note that until such time as the U.S. EPA approves this provision into the Colorado State Implementation Plan (SIP), it shall be enforceable only by the State.

An affirmative defense to a claim of violation under these regulations is provided to owners and operators for civil penalty actions for excess emissions during periods of malfunction. To establish the affirmative defense and to be relieved of a civil penalty in any action to enforce an applicable requirement, the owner or operator of the facility must meet the notification requirements below in a timely manner and prove by a preponderance of evidence that:

- (i) The excess emissions were caused by a sudden, unavoidable breakdown of equipment, or a sudden, unavoidable failure of a process to operate in the normal or usual manner, beyond the reasonable control of the owner or operator;
- (ii) The excess emissions did not stem from any activity or event that could have reasonably been foreseen and avoided, or planned for, and could not have been avoided by better operation and maintenance practices;
- (iii) Repairs were made as expeditiously as possible when the applicable emission limitations were being exceeded;
- (iv) The amount and duration of the excess emissions (including any bypass) were minimized to the maximum extent practicable during periods of such emissions;
- (v) All reasonably possible steps were taken to minimize the impact of the excess emissions on ambient air quality;
- (vi) All emissions monitoring systems were kept in operation (if at all possible);
- (vii) The owner or operator's actions during the period of excess emissions were documented by properly signed, contemporaneous operating logs or other relevant evidence;
- (viii) The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance;
- (ix) At all times, the facility was operated in a manner consistent with good practices for minimizing emissions. This section is intended solely to be a factor in determining whether an affirmative defense is available to an owner or operator, and shall not constitute an additional applicable requirement; and
- (x) During the period of excess emissions, there were no exceedances of the relevant ambient air quality standards established in the Commissions' Regulations that could be attributed to the emitting source.

The owner or operator of the facility experiencing excess emissions during a malfunction shall notify the division verbally as soon as possible, but no later than noon of the Division's next working day, and shall submit written notification following the initial occurrence of the excess emissions by the end of the source's next reporting period. The notification shall address the criteria set forth above.

The Affirmative Defense Provision contained in this section shall not be available to claims for injunctive relief.

The Affirmative Defense Provision does not apply to failures to meet federally promulgated performance standards or emission limits, including, but not limited to, new source performance standards and national emission standards

for hazardous air pollutants. The affirmative defense provision does not apply to state implementation plan (sip) limits or permit limits that have been set taking into account potential emissions during malfunctions, including, but not necessarily limited to, certain limits with 30-day or longer averaging times, limits that indicate they apply during malfunctions, and limits that indicate they apply at all times or without exception.

e. Circumvention Clause

A person shall not build, erect, install, or use any article, machine, equipment, condition, or any contrivance, the use of which, without resulting in a reduction in the total release of air pollutants to the atmosphere, reduces or conceals an emission which would otherwise constitute a violation of this regulation. No person shall circumvent this regulation by using more openings than is considered normal practice by the industry or activity in question.

f. Compliance Certifications

For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in the Colorado State Implementation Plan, nothing in the Colorado State Implementation Plan 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. Evidence that has the effect of making any relevant standard or permit term more stringent shall not be credible for proving a violation of the standard or permit term.

When compliance or non-compliance is demonstrated by a test or procedure provided by permit or other applicable requirement, the owner or operator shall be presumed to be in compliance or non-compliance unless other relevant credible evidence overcomes that presumption.

g. Affirmative Defense Provision for Excess Emissions During Startup and Shutdown

An affirmative defense is provided to owners and operators for civil penalty actions for excess emissions during periods of startup and shutdown. To establish the affirmative defense and to be relieved of a civil penalty in any action to enforce an applicable requirement, the owner or operator of the facility must meet the notification requirements below in a timely manner and prove by a preponderance of the evidence that:

- (i) The periods of excess emissions that occurred during startup and shutdown were short and infrequent and could not have been prevented through careful planning and design;
- (ii) The excess emissions were not part of a recurring pattern indicative of inadequate design, operation or maintenance;
- (iii) If the excess emissions were caused by a bypass (an intentional diversion of control equipment), then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
- (iv) The frequency and duration of operation in startup and shutdown periods were minimized to the maximum extent practicable;
- (v) All possible steps were taken to minimize the impact of excess emissions on ambient air quality;
- (vi) All emissions monitoring systems were kept in operation (if at all possible);
- (vii) The owner or operator's actions during the period of excess emissions were documented by properly signed, contemporaneous operating logs or other relevant evidence; and,
- (viii) At all times, the facility was operated in a manner consistent with good practices for minimizing emissions. This subparagraph is intended solely to be a factor in determining whether an affirmative defense is available to an owner or operator, and shall not constitute an additional applicable requirement.

The owner or operator of the facility experiencing excess emissions during startup and shutdown shall notify the Division verbally as soon as possible, but no later than two (2) hours after the start of the next working day, and shall submit written quarterly notification following the initial occurrence of the excess emissions. The notification shall address the criteria set forth above.

The Affirmative Defense Provision contained in this section shall not be available to claims for injunctive relief.

The Affirmative Defense Provision does not apply to State Implementation Plan provisions or other requirements that derive from new source performance standards or national emissions standards for hazardous air pollutants, or any other federally enforceable performance standard or emission limit with an averaging time greater than twenty-four hours. In addition, an affirmative defense cannot be used by a single source or small group of sources where the excess emissions have the potential to cause an exceedance of the ambient air quality standards or Prevention of Significant Deterioration (PSD) increments.

In making any determination whether a source established an affirmative defense, the Division shall consider the information within the notification required above and any other information the Division deems necessary, which may include, but is not limited to, physical inspection of the facility and review of documentation pertaining to the maintenance and operation of process and air pollution control equipment.

4. Compliance Requirements

Regulation No. 3, 5 CCR 1001-5, Part C, §§ III.C.9., V.C.11. & 16.d. and § 25-7-122.1(2), C.R.S.

- a. The permittee must comply with all conditions of the Operating Permit. Any permit noncompliance relating to federally-enforceable terms or conditions constitutes a violation of the federal act, as well as the state act and Regulation No. 3. Any permit noncompliance relating to state-only terms or conditions constitutes a violation of the state act and Regulation No. 3, shall be enforceable pursuant to state law, and shall not be enforceable by citizens under § 304 of the federal act. Any such violation of the federal act, the state act or regulations implementing either statute is grounds for enforcement action, for permit termination, revocation and reissuance or modification or for denial of a permit renewal application.
- b. It shall not be a defense for a permittee in an enforcement action or a consideration in favor of a permittee in a permit termination, revocation or modification action or action denying a permit renewal application that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.
- c. The permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of any request by the permittee for a permit modification, revocation and reissuance, or termination, or any notification of planned changes or anticipated noncompliance does not stay any permit condition, except as provided in §§ X. and XI. of Regulation No. 3, Part C.
- d. The permittee shall furnish to the Air Pollution Control Division, within a reasonable time as specified by the Division, any information that the Division 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 Division copies of records required to be kept by the permittee, including information claimed to be confidential. Any information subject to a claim of confidentiality shall be specifically identified and submitted separately from information not subject to the claim.
- e. Any schedule for compliance for applicable requirements with which the source is not in compliance at the time of permit issuance shall be supplemental, and shall not sanction noncompliance with, the applicable requirements on which it is based.

- f. For any compliance schedule for applicable requirements with which the source is not in compliance at the time of permit issuance, the permittee shall submit, at least every 6 months unless a more frequent period is specified in the applicable requirement or by the Air Pollution Control Division, progress reports which contain the following:
 - (i) dates for achieving the activities, milestones, or compliance required in the schedule for compliance, and dates when such activities, milestones, or compliance were achieved; and
 - (ii) an explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.
- g. The permittee shall not knowingly falsify, tamper with, or render inaccurate any monitoring device or method required to be maintained or followed under the terms and conditions of the Operating Permit.

5. Emergency Provisions

Regulation No. 3, 5 CCR 1001-5, Part C, § VII.

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 the technology-based emission limitation under the permit due to unavoidable increases in emissions attributable to the emergency. "Emergency" does not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error. An emergency constitutes an affirmative defense to an enforcement action brought for noncompliance with a technology-based emission limitation if the permittee demonstrates, 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 emission standards, or other requirements in the permit; and
- d. the permittee submitted oral notice of the emergency to the Air Pollution Control Division no later than noon of the next working day following the emergency, and followed by written notice within one month of the time when emissions 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 emergency provision is in addition to any emergency or malfunction provision contained in any applicable requirement.

6. Emission Controls for Asbestos

Regulation No. 8, 5 CCR 1001-10, Part B

The permittee shall not conduct any asbestos abatement activities except in accordance with the provisions of Regulation No. 8, Part B, "asbestos control."

7. Emissions Trading, Marketable Permits, Economic Incentives

Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.13.

No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are specifically provided for in the permit.

8. Fee Payment

C.R.S. §§ 25-7-114.1(6) and 25-7-114.7

- a. The permittee shall pay an annual emissions fee in accordance with the provisions of C.R.S. § 25-7-114.7. A 1% per month late payment fee shall be assessed against any invoice amounts not paid in full on the 91st day after the date of invoice, unless a permittee has filed a timely protest to the invoice amount.
- b. The permittee shall pay a permit processing fee in accordance with the provisions of C.R.S. § 25-7-114.7. If the Division estimates that processing of the permit will take more than 30 hours, it will notify the permittee of its estimate of what the actual charges may be prior to commencing any work exceeding the 30 hour limit.
- c. The permittee shall pay an APEN with the provisions of C.R.S. § 25-7-114.1(6) for each APEN or revised APEN filed.

9. Fugitive Particulate Emissions

Regulation No. 1, 5 CCR 1001-3, § III.D.1.

The permittee shall employ such control measures and operating procedures as are necessary to minimize fugitive particulate emissions into the atmosphere, in accordance with the provisions of Regulation No. 1, § III.D.1.

10. Inspection and Entry

Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.16.b.

Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Air Pollution Control Division, or any authorized representative, to perform the following:

- a. enter upon the permittee's premises where an Operating Permit source is located, or emissions-related activity is conducted, or where records must be kept under the terms of the permit;
- b. have access to, and copy, at reasonable times, any records that must be kept under the conditions of the permit;
- c. inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the Operating Permit;
- d. sample or monitor at reasonable times, for the purposes of assuring compliance with the Operating Permit or applicable requirements, any substances or parameters.

11. Minor Permit Modifications

Regulation No. 3, 5 CCR 1001-5, Part C, §§ X. & XI.

The permittee shall submit an application for a minor permit modification before making the change requested in the application. The permit shield shall not extend to minor permit modifications.

12. New Source Review

Regulation No. 3, 5 CCR 1001-5, Part B

The permittee shall not commence construction or modification of a source required to be reviewed under the New Source Review provisions of Regulation No. 3, Part B, without first receiving a construction permit.

13. No Property Rights Conveyed

Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.11.d.

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

14. Odor

Regulation No. 2, 5 CCR 1001-4, Part A

As a matter of state law only, the permittee shall comply with the provisions of Regulation No. 2 concerning odorous emissions.

15. Off-Permit Changes to the Source

Regulation No. 3, 5 CCR 1001-5, Part C, § XII.B.

The permittee shall record any off-permit change to the source that causes the emissions of a regulated pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from the change, including any other data necessary to show compliance with applicable ambient air quality standards. The permittee shall provide contemporaneous notification to the Air Pollution Control Division and to the Environmental Protection Agency at the addresses listed in Appendix D of this Permit. The permit shield shall not apply to any off-permit change.

16. Opacity

Regulation No. 1, 5 CCR 1001-3, §§ I., II.

The permittee shall comply with the opacity emissions limitation set forth in Regulation No. 1, §§ I.-II.

17. Open Burning

Regulation No. 9, 5 CCR 1001-11

The permittee shall obtain a permit from the Division for any regulated open burning activities in accordance with provisions of Regulation No. 9.

18. Ozone Depleting Compounds

Regulation No. 15, 5 CCR 1001-17

The permittee shall comply with the provisions of Regulation No. 15 concerning emissions of ozone depleting compounds. Sections I., II.C., II.D., III. IV., and V. of Regulation No. 15 shall be enforced as a matter of state law only.

19. Permit Expiration and Renewal

Regulation No. 3, 5 CCR 1001-5, Part C, §§ III.B.6., IV.C., V.C.2.

- a. The permit term shall be five (5) years. The permit shall expire at the end of its term. Permit expiration terminates the permittee's right to operate unless a timely and complete renewal application is submitted.
- b. Applications for renewal shall be submitted at least twelve months, but not more than 18 months, prior to the expiration of the Operating Permit. An application for permit renewal may address only those portions of the permit that require revision, supplementing, or deletion, incorporating the remaining permit terms by reference from the previous permit. A copy of any materials incorporated by reference must be included with the application.

20. Portable Sources

Regulation No. 3, 5 CCR 1001-5, Part C, § II.D.

Portable Source permittees shall notify the Air Pollution Control Division at least 10 days in advance of each change in location.

21. Prompt Deviation Reporting

Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.7.b.

The permittee shall promptly report any deviation from permit requirements, including those attributable to malfunction conditions as defined in the 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; or
- 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 shall 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 continue for more than two hours in excess of permit requirements, the report shall be made within 48 hours; and
 - (iii) For all other deviations from permit requirements, the report shall be submitted every six (6) months, except as otherwise specified by the Division in the permit in accordance with paragraph 22.d. below.
- c. If any of the conditions in paragraphs b.i or b.ii above are met, the source shall notify the Division by telephone (303-692-3155) or facsimile (303-782-0278) based on the timetables listed above. *[Explanatory note: Notification by telephone or facsimile must specify that this notification is a deviation report for an Operating Permit.]* A written notice, certified consistent with General Condition 2.a. above (Certification Requirements), shall be submitted within 10 working days of the occurrence. All deviations reported under this section shall also be identified in the 6-month report required above.

“Prompt reporting” does not constitute an exception to the requirements of "Emergency Provisions" for the purpose of avoiding enforcement actions.

22. Record Keeping and Reporting Requirements

Regulation No. 3, 5 CCR 1001-5, Part A, § II.; Part C, §§ V.C.6., V.C.7.

- a. Unless otherwise provided in the source specific conditions of this Operating Permit, the permittee shall maintain compliance monitoring records that include the following information:
 - (i) date, place as defined in the Operating Permit, and time of sampling or measurements;
 - (ii) date(s) on which analyses were performed;

- (iii) the company or entity that performed the analysis;
 - (iv) the analytical techniques or methods used;
 - (v) the results of such analysis; and
 - (vi) the operating conditions at the time of sampling or measurement.
- b. The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report or application. Support information, for this purpose, includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the Operating Permit. With prior approval of the Air Pollution Control Division, the permittee may maintain any of the above records in a computerized form.
- c. Permittees must retain records of all required monitoring data and support information for the most recent twelve (12) month period, as well as compliance certifications for the past five (5) years on-site at all times. A permittee shall make available for the Air Pollution Control Division's review all other records of required monitoring data and support information required to be retained by the permittee upon 48 hours advance notice by the Division.
- d. The permittee shall submit to the Air Pollution Control Division all reports of any required monitoring at least every six (6) months, unless an applicable requirement, the compliance assurance monitoring rule, or the Division requires submission on a more frequent basis. All instances of deviations from any permit requirements must be clearly identified in such reports.
- e. The permittee shall file an Air Pollutant Emissions Notice ("APEN") prior to constructing, modifying, or altering any facility, process, activity which constitutes a stationary source from which air pollutants are or are to be emitted, unless such source is exempt from the APEN filing requirements of Regulation No. 3, Part A, § II.D. A revised APEN shall be filed annually whenever a significant change in emissions, as defined in Regulation No. 3, Part A, § II.C.2., occurs; whenever there is a change in owner or operator of any facility, process, or activity; whenever new control equipment is installed; whenever a different type of control equipment replaces an existing type of control equipment; whenever a permit limitation must be modified; or before the APEN expires. An APEN is valid for a period of five years. The five-year period recommences when a revised APEN is received by the Air Pollution Control Division. Revised APENs shall be submitted no later than 30 days before the five-year term expires. Permittees submitting revised APENs to inform the Division of a change in actual emission rates must do so by April 30 of the following year. Where a permit revision is required, the revised APEN must be filed along with a request for permit revision. APENs for changes in control equipment must be submitted before the change occurs. Annual fees are based on the most recent APEN on file with the Division.

23. Reopenings for Cause

Regulation No. 3, 5 CCR 1001-5, Part C, § XIII.

- a. The Air Pollution Control Division shall reopen, revise, and reissue Operating Permits; permit reopenings and reissuance shall be processed using the procedures set forth in Regulation No. 3, Part C, § III., except that proceedings to reopen and reissue permits affect only those parts of the permit for which cause to reopen exists.
- b. The Division shall reopen a permit whenever additional applicable requirements become applicable to a major source with a remaining permit term of three or more years, unless the effective date of the requirements is later than the date on which the permit expires, or unless a general permit is obtained to address the new requirements; whenever additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program; whenever the Division determines 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 whenever the Division determines that the permit must be revised or revoked to assure compliance with an applicable requirement.

- c. The Division shall provide 30 days' advance notice to the permittee of its intent to reopen the permit, except that a shorter notice may be provided in the case of an emergency.
- d. The permit shield shall extend to those parts of the permit that have been changed pursuant to the reopening and reissuance procedure.

24. Section 502(b)(10) Changes

Regulation No. 3, 5 CCR 1001-5, Part C, § XII.A.

The permittee shall provide a minimum 7-day advance notification to the Air Pollution Control Division and to the Environmental Protection Agency at the addresses listed in Appendix D of this Permit. The permittee shall attach a copy of each such notice given to its Operating Permit.

25. Severability Clause

Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.10.

In the event of a challenge to any portion of the permit, all emissions limits, specific and general conditions, monitoring, record keeping and reporting requirements of the permit, except those being challenged, remain valid and enforceable.

26. Significant Permit Modifications

Regulation No. 3, 5 CCR 1001-5, Part C § III.B.2.

The permittee shall not make a significant modification required to be reviewed under Regulation No. 3, Part B ("Construction Permit" requirements) without first receiving a construction permit. The permittee shall submit a complete Operating Permit application or application for an Operating Permit revision for any new or modified source within twelve months of commencing operation, to the address listed in Item 1 in Appendix D of this permit. If the permittee chooses to use the "Combined Construction/Operating Permit" application procedures of Regulation No. 3, Part C, then the Operating Permit must be received prior to commencing construction of the new or modified source.

27. Special Provisions Concerning the Acid Rain Program

Regulation No. 3, 5 CCR 1001-5, Part C, §§ V.C.1.b. & 8

- a. Where an applicable requirement of the federal act is more stringent than an applicable requirement of regulations promulgated under Title IV of the federal act, 40 Code of Federal Regulations (CFR) Part 72, both provisions shall be incorporated into the permit and shall be federally enforceable.
- b. Emissions exceeding any allowances that the source lawfully holds under Title IV of the federal act or the regulations promulgated thereunder, 40 CFR Part 72, are expressly prohibited.

28. Transfer or Assignment of Ownership

Regulation No. 3, 5 CCR 1001-5, Part C, § II.C.

No transfer or assignment of ownership of the Operating Permit source will be effective unless the prospective owner or operator applies to the Air Pollution Control Division on Division-supplied Administrative Permit Amendment forms, for reissuance of the existing Operating Permit. No administrative permit shall be complete until a written agreement containing a specific date for transfer of permit, responsibility, coverage, and liability between the permittee and the prospective owner or operator has been submitted to the Division.

29. Volatile Organic Compounds

Regulation No. 7, 5 CCR 1001-9, §§ III & V.

The requirements in paragraphs a, b and e apply to sources located in an ozone non-attainment area or the Denver 1-hour ozone attainment/maintenance area. The requirements in paragraphs c and d apply statewide.

- a. All storage tank gauging devices, anti-rotation devices, accesses, seals, hatches, roof drainage systems, support structures, and pressure relief valves shall be maintained and operated to prevent detectable vapor loss except when opened, actuated, or used for necessary and proper activities (e.g. maintenance). Such opening, actuation, or use shall be limited so as to minimize vapor loss.

Detectable vapor loss shall be determined visually, by touch, by presence of odor, or using a portable hydrocarbon analyzer. When an analyzer is used, detectable vapor loss means a VOC concentration exceeding 10,000 ppm. Testing shall be conducted as in Regulation No. 7, Section VIII.C.3.
- b. Except when otherwise provided by Regulation No. 7, all volatile organic compounds, excluding petroleum liquids, transferred to any tank, container, or vehicle compartment with a capacity exceeding 212 liters (56 gallons), shall be transferred using submerged or bottom filling equipment. For top loading, the fill tube shall reach within six inches of the bottom of the tank compartment. For bottom-fill operations, the inlet shall be flush with the tank bottom.
- c. The permittee shall not dispose of volatile organic compounds by evaporation or spillage unless Reasonably Available Control Technology (RACT) is utilized.
- d. No owner or operator of a bulk gasoline terminal, bulk gasoline plant, or gasoline dispensing facility as defined in Colorado Regulation No. 7, Section VI, shall permit gasoline to be intentionally spilled, discarded in sewers, stored in open containers, or disposed of in any other manner that would result in evaporation.
- e. Beer production and associated beer container storage and transfer operations involving volatile organic compounds with a true vapor pressure of less than 1.5 PSIA actual conditions are exempt from the provisions of paragraph b, above.

30. Wood Stoves and Wood burning Appliances

Regulation No. 4, 5 CCR 1001-6

The permittee shall comply with the provisions of Regulation No. 4 concerning the advertisement, sale, installation, and use of wood stoves and wood burning appliances.

OPERATING PERMIT APPENDICES

A - INSPECTION INFORMATION

B - MONITORING AND PERMIT DEVIATION REPORT

C - COMPLIANCE CERTIFICATION REPORT

D - NOTIFICATION ADDRESSES

E - PERMIT ACRONYMS

F - PERMIT MODIFICATIONS

*DISCLAIMER:

None of the information found in these Appendices shall be considered to be State or Federally enforceable, except as otherwise provided in the permit, and is presented to assist the source, permitting authority, inspectors, and citizens.

APPENDIX A - Inspection Information

Directions to Plant:

The facility is located at 1500 S Clayton Street. The facility is located in a 90 acre industrial area shared with the greenhouse is just south of Brush.

Safety Equipment Required:

Eye Protection, Hard Hat, Safety Shoes and Hearing Protection.

Facility Plot Plan:

Figure 1 (following page) shows the plot plan as submitted on August 27, 2004 with the source's comments on the draft renewal Title V Operating Permit.

List of Insignificant Activities:

The following list of insignificant activities was provided by the source to assist in the understanding of the facility layout. Since there is no requirement to update such a list, activities may have changed since the last filing.

Insignificant activities and/or sources of emissions as submitted in the application are as follows:

One (1) small water treatment analysis labs

Water treatment chemical storage and dispensing tanks: three (3) @ 400 gallons each, two (2) @ 75 gallons each, one (1) @ 100 gallons and one (1) @ 600 gallons

Two (2) small propane gas tanks

Tank of waste lube oil, 250 gallons

Temporary storage for steam turbine lube oil, 3500 gallons

Diesel storage tank, 300 gallons

Two (2) unleaded gasoline storage tanks, 300 gallons each

Kerosene storage tank, 300 gallons

Gas unit and duct gas heaters, six (6) @ 75 MBtu, five (5) @ 100 MBtu, two (2) @ 125 MBtu, and two (2) @ 150 MBtu

One (1) Portable welding unit (driven by a 20 hp gasoline fired engine)

APPENDIX B

Reporting Requirements and Definitions

with codes ver 2/20/07

Please note that, pursuant to 113(c)(2) of the federal Clean Air Act, any person who knowingly:

- (A) makes any false material statement, representation, or certification in, or omits material information from, or knowingly alters, conceals, or fails to file or maintain any notice, application, record, report, plan, or other document required pursuant to the Act to be either filed or maintained (whether with respect to the requirements imposed by the Administrator or by a State);
- (B) fails to notify or report as required under the Act; or
- (C) falsifies, tampers with, renders inaccurate, or fails to install any monitoring device or method required to be maintained or followed under the Act shall, upon conviction, be punished by a fine pursuant to title 18 of the United States Code, or by imprisonment for not more than 2 years, or both. If a conviction of any person under this paragraph is for a violation committed after a first conviction of such person under this paragraph, the maximum punishment shall be doubled with respect to both the fine and imprisonment.

The permittee must comply with all conditions of this operating permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

The Part 70 Operating Permit program requires three types of reports to be filed for all permits. All required reports must be certified by a responsible official.

Report #1: Monitoring Deviation Report (due at least every six months)

For purposes of this operating permit, the Division is requiring that the monitoring reports are due every six months unless otherwise noted in the permit. All instances of deviations from permit monitoring requirements must be clearly identified in such reports.

For purposes of this operating permit, monitoring means any condition determined by observation, by data from any monitoring protocol, or by any other monitoring which is required by the permit as well as the recordkeeping associated with that monitoring. This would include, for example, fuel use or process rate monitoring, fuel analyses, and operational or control device parameter monitoring.

Report #2: Permit Deviation Report (must be reported “promptly”)

In addition to the monitoring requirements set forth in the permits as discussed above, each and every requirement of the permit is subject to deviation reporting. The reports must address deviations from permit

requirements, including those attributable to malfunctions as defined in this Appendix, the probable cause of such deviations, and any corrective actions or preventive measures taken. All deviations from any term or condition of the permit are required to be summarized or referenced in the annual compliance certification.

For purposes of this operating permit, “malfunction” shall refer to both emergency conditions and malfunctions. Additional discussion on these conditions is provided later in this Appendix.

For purposes of this operating permit, the Division is requiring that the permit deviation reports are due as set forth in General Condition 21. Where the underlying applicable requirement contains a definition of prompt or otherwise specifies a time frame for reporting deviations, that definition or time frame shall govern. For example, quarterly Excess Emission Reports required by an NSPS or Regulation No. 1, Section IV.

In addition to the monitoring deviations discussed above, included in the meaning of deviation for the purposes of this operating permit are any of the following:

- (1) A situation where emissions exceed an emission limitation or standard contained in the permit;
- (2) A situation where process or control device parameter values demonstrate that an emission limitation or standard contained in the permit has not been met;
- (3) 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,
- (4) A situation in which an excursion or exceedance as defined in 40CFR Part 64 (the Compliance Assurance Monitoring (CAM) Rule) has occurred. (only if the emission point is subject to CAM)

For reporting purposes, the Division has combined the Monitoring Deviation Report with the Permit Deviation Report. All deviations shall be reported using the following codes:

- | | |
|-------------------------|---|
| 1 = Standard: | When the requirement is an emission limit or standard |
| 2 = Process: | When the requirement is a production/process limit |
| 3 = Monitor: | When the requirement is monitoring |
| 4 = Test: | When the requirement is testing |
| 5 = Maintenance: | When required maintenance is not performed |
| 6 = Record: | When the requirement is recordkeeping |
| 7 = Report: | When the requirement is reporting |
| 8 = CAM: | A situation in which an excursion or exceedance as defined in 40 CFR Part 64 (the Compliance Assurance Monitoring (CAM) Rule) has occurred. |
| 9 = Other: | When the deviation is not covered by any of the above categories |

Report #3: Compliance Certification (annually, as defined in the permit)

Submission of compliance certifications with terms and conditions in the permit, including emission limitations, standards, or work practices, is required not less than annually.

Compliance Certifications are intended to state the compliance status of each requirement of the permit over the certification period. They must be based, at a minimum, on the testing and monitoring methods specified in the permit that were conducted during the relevant time period. In addition, if the owner or operator knows of other material information (i.e. information beyond required monitoring that has been specifically assessed in relation to how the information potentially affects compliance status), that information must be identified and addressed in the compliance certification. The compliance certification must include the following:

- The identification of each term or condition of the permit that is the basis of the certification;
- Whether or not the method(s) used by the owner or operator for determining the compliance status with each permit term and condition during the certification period was the method(s) specified in the permit. Such methods and other means shall include, at a minimum, the methods and means required in the permit. If necessary, the owner or operator also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Federal Clean Air Act, which prohibits knowingly making a false certification or omitting material information;
- The status of compliance with the terms and conditions of the permit, and whether compliance was continuous or intermittent. The certification shall identify each deviation and take it into account in the compliance certification. Note that not all deviations are considered violations.¹
- Such other facts as the Division may require, consistent with the applicable requirements to which the source is subject, to determine the compliance status of the source.

The Certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance as defined under 40 CFR Part 64 (the Compliance Assurance Monitoring (CAM) Rule) has occurred. (only for emission points subject to CAM)

Note the requirement that the certification shall identify each deviation and take it into account in the compliance certification. Previously submitted deviation reports, including the deviation report submitted at the time of the annual certification, may be referenced in the compliance certification.

Startup, Shutdown, Malfunctions and Emergencies

Understanding the application of Startup, Shutdown, Malfunctions and Emergency Provisions, is very important in both the deviation reports and the annual compliance certifications.

Startup, Shutdown, and Malfunctions

Please note that exceedances of some New Source Performance Standards (NSPS) and Maximum Achievable Control Technology (MACT) standards that occur during Startup, Shutdown or Malfunctions may not be

¹ For example, given the various emissions limitations and monitoring requirements to which a source may be subject, a deviation from one requirement may not be a deviation under another requirement which recognizes an exception and/or special circumstances relating to that same event.

considered to be non-compliance since emission limits or standards often do not apply unless specifically stated in the NSPS. Such exceedances must, however, be reported as excess emissions per the NSPS/MACT rules and would still be noted in the deviation report. In regard to compliance certifications, the permittee should be confident of the information related to those deviations when making compliance determinations since they are subject to Division review. The concepts of Startup, Shutdown and Malfunctions also exist for Best Available Control Technology (BACT) sources, but are not applied in the same fashion as for NSPS and MACT sources.

Emergency Provisions

Under the Emergency provisions of Part 70 certain operational conditions may act as an affirmative defense against enforcement action if they are properly reported.

DEFINITIONS

Malfunction (NSPS) means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Malfunction (SIP) means any sudden and unavoidable failure of air pollution control equipment or process equipment or unintended failure of a process to operate in a normal or usual manner. Failures that are primarily caused by poor maintenance, careless operation, or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions.

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 preventative maintenance, careless or improper operation, or operator error.

Monitoring and Permit Deviation Report - Part I

- Following is the **required** format for the Monitoring and Permit Deviation report to be submitted to the Division as set forth in General Condition 21. The Table below must be completed for all equipment or processes for which specific Operating Permit terms exist.
- Part II of this Appendix B shows the format and information the Division will require for describing periods of monitoring and permit deviations, or malfunction or emergency conditions as indicated in the Table below. One Part II Form must be completed for each Deviation. Previously submitted reports (e.g. EER's or malfunctions) may be referenced and the form need not be filled out in its entirety.

FACILITY NAME: Brush Cogeneration Partnership
 OPERATING PERMIT NO: 96OPMR153
 REPORTING PERIOD: _____

Operating Permit Unit ID	Unit Description	Deviations Noted During Period? ¹		Deviation Code ²	Malfunction /Emergency Condition Reported During Period?	
		YES	NO		YES	NO
GT-3	General Electric PG6541B-MS6001B Natural Gas Combustion Turbine, Nominally Rated at 350 MMBtu/hr, SN: 296003, Equipped with One (1) Duct Burner, Nominally Rated at 240 MMBtu/hr.					
	Detroit Diesel Model No. 12-71-TT, Diesel Fired Reciprocating Starter Engine, rated at 660 hp, SN: 12VA86777					
S005	GEA Cooling Tower, Two Cell Counter Flow, 29,900 gallons/minute.					
	General Conditions					
	Insignificant Activities					

¹ See previous discussion regarding what is considered to be a deviation. Determination of whether or not a deviation has occurred shall be based on a reasonable inquiry using readily available information.

²Use the following entries as appropriate:

- 1 = Standard:** When the requirement is an emission limit or standard
- 2 = Process:** When the requirement is a production/process limit
- 3 = Monitor:** When the requirement is monitoring
- 4 = Test:** When the requirement is testing
- 5 = Maintenance:** When required maintenance is not performed
- 6 = Record:** When the requirement is recordkeeping
- 7 = Report:** When the requirement is reporting
- 8 = CAM:** A situation in which an excursion or exceedance as defined in 40 CFR Part 64 (the Compliance Assurance Monitoring (CAM) Rule) has occurred.
- 9 = Other:** When the deviation is not covered by any of the above categories

Monitoring and Permit Deviation Report - Part II

FACILITY NAME: Brush Cogeneration Partnership
OPERATING PERMIT NO: 96OPMR153
REPORTING PERIOD:

Is the deviation being claimed as an: Emergency _____ Malfunction _____ N/A _____

(For NSPS/MACT) Did the deviation occur during: Startup _____ Shutdown _____ Malfunction _____
Normal Operation _____

OPERATING PERMIT UNIT IDENTIFICATION:

Operating Permit Condition Number Citation

Explanation of Period of Deviation

Duration (start/stop date & time)

Action Taken to Correct the Problem

Measures Taken to Prevent a Reoccurrence of the Problem

Dates of Malfunctions/Emergencies Reported (if applicable)

Deviation Code _____

Division Code QA: _____

SEE EXAMPLE ON THE NEXT PAGE

EXAMPLE

FACILITY NAME: Acme Corp.
OPERATING PERMIT NO: 96OPZZXXX
REPORTING PERIOD: 1/1/04 - 6/30/06

Is the deviation being claimed as an: Emergency _____ Malfunction XX N/A _____

(For NSPS/MACT) Did the deviation occur during: Startup _____ Shutdown _____ Malfunction
Normal Operation _____

OPERATING PERMIT UNIT IDENTIFICATION:

Asphalt Plant with a Scrubber for Particulate Control - Unit XXX

Operating Permit Condition Number Citation

Section II, Condition 3.1 - Opacity Limitation

Explanation of Period of Deviation

Slurry Line Feed Plugged

Duration

START- 1730 4/10/06

END- 1800 4/10/06

Action Taken to Correct the Problem

Line Blown Out

Measures Taken to Prevent Reoccurrence of the Problem

Replaced Line Filter

Dates of Malfunction/Emergencies Reported (if applicable)

5/30/06 to A. Einstein, APCD

Deviation Code _____

Division Code QA: _____

Monitoring and Permit Deviation Report - Part III

REPORT CERTIFICATION

SOURCE NAME: Brush Cogeneration Partnership

FACILITY IDENTIFICATION NUMBER: 0870027

PERMIT NUMBER: 96OPMR153

REPORTING PERIOD: _____ (see first page of the permit for specific reporting period and dates)

All information for the Title V Semi-Annual Deviation Reports must be certified by a responsible official as defined in Colorado Regulation No. 3, Part A, Section I.B.38. This signed certification document must be packaged with the documents being submitted.

STATEMENT OF COMPLETENESS

I have reviewed the information being submitted in its entirety and, based on information and belief formed after reasonable inquiry, I certify that the statements and information contained in this submittal are true, accurate and complete.

Please note that the Colorado Statutes state that any person who knowingly, as defined in Sub-Section 18-1-501(6), C.R.S., makes any false material statement, representation, or certification in this document is guilty of a misdemeanor and may be punished in accordance with the provisions of Sub-Section 25-7 122.1, C.R.S.

Printed or Typed Name

Title

Signature of Responsible Official

Date Signed

Note: Deviation reports shall be submitted to the Division at the address given in Appendix D of this permit. No copies need be sent to the U.S. EPA.

APPENDIX C

Required Format for Annual Compliance Certification Reports

ver 2/20/07

Following is the format for the Compliance Certification report to be submitted to the Division and the U.S. EPA annually based on the effective date of the permit. The Table below must be completed for all equipment or processes for which specific Operating Permit terms exist.

FACILITY NAME: Brush Cogeneration Partners

OPERATING PERMIT NO: 96OPMR153

REPORTING PERIOD:

I. Facility Status

___ During the entire reporting period, this source was in compliance with **ALL** terms and conditions contained in the Permit, each term and condition of which is identified and included by this reference. The method(s) used to determine compliance is/are the method(s) specified in the Permit.

___ With the possible exception of the deviations identified in the table below, this source was in compliance with all terms and conditions contained in the Permit, each term and condition of which is identified and included by this reference, during the entire reporting period. The method used to determine compliance for each term and condition is the method specified in the Permit, unless otherwise indicated and described in the deviation report(s). Note that not all deviations are considered violations.

Operating Permit Unit ID	Unit Description	Deviations Reported ¹		Monitoring Method per Permit? ²		Was compliance continuous or intermittent? ³	
		Previous	Current	YES	NO	Continuous	Intermittent
GT-3	General Electric PG6541B-MS6001B Natural Gas Combustion Turbine, Nominally Rated at 350 MMBtu/hr, SN: 296003, Equipped with One (1) Duct Burner, Nominally Rated at 240 MMBtu/hr.						
	Detroit Diesel Model No. 12-71-TT, Diesel Fired Reciprocating Starter Engine, rated at 660 hp, SN: 12VA86777.						
S005	GEA Cooling Tower, Two Cell Counter Flow, 29,900 gallons/minute.						
	General Conditions						
	Insignificant Activities ⁴						

¹ If deviations were noted in a previous deviation report, put an “X” under “previous”. If deviations were noted in the current deviation report (i.e. for the last six months of the annual reporting period), put an “X” under “current”. Mark both columns if both apply.

² Note whether the method(s) used to determine the compliance status with each term and condition was the method(s) specified in the permit. If it was not, mark “no” and attach additional information/explanation.

³ Note whether the compliance status with of each term and condition provided was continuous or intermittent. “Intermittent Compliance” can mean either that noncompliance has occurred or that the owner or operator has data sufficient to certify compliance only on an intermittent basis. Certification of intermittent compliance therefore does not necessarily mean that any noncompliance has occurred.

NOTE:

The Periodic Monitoring requirements of the Operating Permit program rule are intended to provide assurance that even in the absence of a continuous system of monitoring the Title V source can demonstrate whether it has operated in continuous compliance for the duration of the reporting period. Therefore, if a source 1) conducts all of the monitoring and recordkeeping required in its permit, even if such activities are done periodically and not continuously, and if 2) such monitoring and recordkeeping does not indicate non-compliance, and if 3) the Responsible Official is not aware of any credible evidence that indicates non-compliance, then the Responsible Official can certify that the emission point(s) in question were in continuous compliance during the applicable time period.

⁴ Compliance status for these sources shall be based on a reasonable inquiry using readily available information.

II. Status for Accidental Release Prevention Program:

- A. This facility _____ is subject _____ is not subject to the provisions of the Accidental Release Prevention Program (Section 112(r) of the Federal Clean Air Act)
- B. If subject: The facility _____ is _____ is not in compliance with all the requirements of section 112(r).
1. A Risk Management Plan _____ will be _____ has been submitted to the appropriate authority and/or the designated central location by the required date.

III. Certification

All information for the Annual Compliance Certification must be certified by a responsible official as defined in Colorado Regulation No. 3, Part A, Section I.B.38. This signed certification document must be packaged with the documents being submitted.

I have reviewed this certification in its entirety and, based on information and belief formed after reasonable inquiry, I certify that the statements and information contained in this certification are true, accurate and complete.

Please note that the Colorado Statutes state that any person who knowingly, as defined in § 18-1-501(6), C.R.S., makes any false material statement, representation, or certification in this document is guilty of a misdemeanor and may be punished in accordance with the provisions of § 25-7 122.1, C.R.S.

Printed or Typed Name

Title

Signature

Date Signed

NOTE: All compliance certifications shall be submitted to the Air Pollution Control Division and to the Environmental Protection Agency at the addresses listed in Appendix D of this Permit.

APPENDIX D

Notification Addresses

1. **Air Pollution Control Division**

Colorado Department of Public Health and Environment
Air Pollution Control Division
Operating Permits Unit
APCD-SS-B1
4300 Cherry Creek Drive S.
Denver, CO 80246-1530

ATTN: Matt Burgett

2. **United States Environmental Protection Agency**

Compliance Notifications:

Office of Enforcement, Compliance and Environmental Justice
Mail Code 8ENF-T
U.S. Environmental Protection Agency, Region VIII
1595 Wynkoop Street
Denver, CO 80202-1129

Permit Modifications, Off Permit Changes:

Office of Partnerships and Regulatory Assistance
Air and Radiation Programs, 8P-AR
U.S. Environmental Protection Agency, Region VIII
1595 Wynkoop Street
Denver, CO 80202-1129

APPENDIX E

Permit Acronyms

Listed Alphabetically:

AIRS -	Aerometric Information Retrieval System
AP-42 -	EPA Document Compiling Air Pollutant Emission Factors
APEN -	Air Pollution Emission Notice (State of Colorado)
APCD -	Air Pollution Control Division (State of Colorado)
ASTM -	American Society for Testing and Materials
BACT -	Best Available Control Technology
BTU -	British Thermal Unit
CAA -	Clean Air Act (CAAA = Clean Air Act Amendments)
CCR -	Colorado Code of Regulations
CEM -	Continuous Emissions Monitor
CF -	Cubic Feet (SCF = Standard Cubic Feet)
CFR -	Code of Federal Regulations
CO -	Carbon Monoxide
COM -	Continuous Opacity Monitor
CRS -	Colorado Revised Statute
EF -	Emission Factor
EPA -	Environmental Protection Agency
FI -	Fuel Input Rate in MMBtu/hr
FR -	Federal Register
G -	Grams
Gal -	Gallon
GPM -	Gallons per Minute
HAPs -	Hazardous Air Pollutants
HP -	Horsepower
HP-HR -	Horsepower Hour (G/HP-HR = Grams per Horsepower Hour)
LAER -	Lowest Achievable Emission Rate
LBS -	Pounds
M -	Thousand
MM -	Million
MMscf -	Million Standard Cubic Feet
MMscfd -	Million Standard Cubic Feet per Day
N/A or NA -	Not Applicable
NO _x -	Nitrogen Oxides
NESHAP -	National Emission Standards for Hazardous Air Pollutants
NSPS -	New Source Performance Standards
P -	Process Weight Rate in Tons/Hr
PE -	Particulate Emissions
PM -	Particulate Matter

PM ₁₀ -	Particulate Matter Under 10 Microns
PPM	Parts Per Million
PPMV	Parts Per Million, by Volume
PPMVD	Parts Per Million, by Volume, Dry
PSD -	Prevention of Significant Deterioration
PTE -	Potential To Emit
RACT -	Reasonably Available Control Technology
SCC -	Source Classification Code
SCF -	Standard Cubic Feet
SIC -	Standard Industrial Classification
SO ₂ -	Sulfur Dioxide
TPY -	Tons Per Year
TSP -	Total Suspended Particulate
VOC -	Volatile Organic Compounds

