global environmental solutions

Columbia Gas Transmission LLC

Saunders Creek RS Station

Milton, West Virginia

Rule 13 Permit Application

SLR Ref: 116.01272.00040

May 2017

May 12, 2017

Mr. William F. Durham
Director
WVDEP, Division of Air Quality
601 – 57th Street SE
Charleston, West Virginia 25304

Re: Columbia Gas Transmission, 45CSR13 Construction Permit Application – Saunders Creek RS Station

Dear Mr. Durham,

Columbia Gas Transmission, LLC (Columbia) and SLR International Corporation (SLR) have prepared the attached 45CSR13 Construction Permit Application for the Saunders Creek RS Station located in Cabell County, West Virginia. The facility will consist of two 32.12 mmBtu/hr GasTech main gas heaters, one 30 hp Generac RG022 Generator, and a PIG launcher.

The public notice was delivered to *The Herald Dispatch* for publication. The legal advertisement will be forwarded to your office as soon as SLR receives the original affidavit from the newspaper.

If any additional information is needed, please feel free to contact me by telephone at (304) 545-8563 or by e-mail at jhanshaw@slrconsulting.com

Sincerely,
SLR International Corporation

Jesse Hanshaw

Jesse Hanshaw, P.E.
Principal Engineer

Saunders Creek RS Station Rule 13 Permit Application

Prepared for:

Columbia Gas Transmission LLC
1700 MacCorkle Avenue, SE
Charleston WV

This document has been prepared by SLR International Corporation. The material and data in this permit application were prepared under the supervision and direction of the undersigned.

Chris Boggess
Associate Engineer

Jesse Hanshaw, P.E.
Principal Engineer

CONTENTS

ATTACHMENTS

Notes:
ATTACHMENT K - No fugitive emissions associated with this permit application
ATTACHMENT M - No APCD utilized at this facility
ATTACHMENT Q - No information contained within this application is claimed confidential
ATTACHMENT R - No delegation of authority
ATTACHMENT S - Not a Title V Permit Revision

APPLICATION FOR PERMIT

Rule 13 Permit Application

Saunders Creek RS Station
Milton, West Virginia

Columbia Gas Transmission LLC
1700 MacCorkle Avenue, SE
Charleston WV

May 2017

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF AIR QUALITY

601 57th Street, SE
Charleston, WV 25304
(304) 926-0475
www.dep.wv.gov/daq

APPLICATION FOR NSR PERMIT AND TITLE V PERMIT REVISION (OPTIONAL)

PLEASE CHECK ALL THAT APPLY TO **NSR (45CSR13)** (IF KNOWN):

☒ **CONSTRUCTION** ☐ **MODIFICATION** ☐ **RELOCATION**
☐ **CLASS I ADMINISTRATIVE UPDATE** ☐ **TEMPORARY**
☐ **CLASS II ADMINISTRATIVE UPDATE** ☐ **AFTER-THE-FACT**

PLEASE CHECK TYPE OF **45CSR30 (TITLE V)** REVISION (IF ANY):

☐ **ADMINISTRATIVE AMENDMENT** ☐ **MINOR MODIFICATION**
☐ **SIGNIFICANT MODIFICATION**

IF ANY BOX ABOVE IS CHECKED, INCLUDE TITLE V REVISION INFORMATION AS **ATTACHMENT S** TO THIS APPLICATION

FOR TITLE V FACILITIES ONLY: Please refer to "Title V Revision Guidance" in order to determine your Title V Revision options (Appendix A, "Title V Permit Revision Flowchart") and ability to operate with the changes requested in this Permit Application.

Section I. General

1. Name of applicant *(as registered with the WV Secretary of State's Office):*
Columbia Gas Transmission, LLC

2. Federal Employer ID No. ***(FEIN):***
31-0802435-30

3. Name of facility *(if different from above):*
Saunders Creek RS Station

4. The applicant is the:
☐ **OWNER** ☐ **OPERATOR** ☒ **BOTH**

5A. Applicant's mailing address:
1700 MacCorkle Avenue, SE
Charleston, WV 25314

5B. Facility's present physical address:
Station Located Off
Dry Creek Rd
Milton, WV 25541

6. **West Virginia Business Registration.** Is the applicant a resident of the State of West Virginia? ☒ **YES** ☐ **NO**

- If **YES,** provide a copy of the **Certificate of Incorporation/Organization/Limited Partnership** (one page) including any name change amendments or other Business Registration Certificate as **Attachment A.**
- If **NO,** provide a copy of the **Certificate of Authority/Authority of L.L.C./Registration** (one page) including any name change amendments or other Business Certificate as **Attachment A.**

7. If applicant is a subsidiary corporation, please provide the name of parent corporation:

8. Does the applicant own, lease, have an option to buy or otherwise have control of the *proposed site?* ☒ **YES** ☐ **NO**

- If **YES,** please explain: **The applicant owns the site.**
- If **NO,** you are not eligible for a permit for this source.

9. Type of plant or facility (stationary source) to be **constructed, modified, relocated, administratively updated** or **temporarily permitted** (e.g., coal preparation plant, primary crusher, etc.): **Natural Gas Transmission Station**

10. North American Industry Classification System **(NAICS)** code for the facility:
486210

11A. DAQ Plant ID No. (for existing facilities only):
NA

11B. List all current 45CSR13 and 45CSR30 (Title V) permit numbers associated with this process (for existing facilities only):
NA

12A.

- For **Modifications, Administrative Updates** or **Temporary permits** at an existing facility, please provide directions to the *present location* of the facility from the nearest state road;
- For **Construction** or **Relocation permits,** please provide directions to the *proposed new site location* from the nearest state road. Include a **MAP** as **Attachment B**.

Travelling West on Interstate 64, take exit 28 (Milton). At end of exit ramp turn left onto County Route 13 (Johns Creek Rd) and travel approximately 0.5 miles to intersection with U.S Route 60. Turn right onto U.S. 60 and travel approximately 2.5 miles to Saunders Creek Rd. Turn left onto Saunders Creek Rd and travel approximately 2 miles as Saunders Creek Rd will transition into Stratten Rd. Continue on Stratten Rd. for approximately 0.25 miles and turn left onto Dry Creek Rd. Dry Creek Rd. will transition into access road for station. Station located approximately 0.5 miles from start of Dry Creek Rd.

12B. New site address (if applicable):	12C. Nearest city or town:	12D. County:
N/A	Milton	Cabell
12.E. UTM Northing (KM): 4,251.542	12F. UTM Easting (KM): 400.053	12G. UTM Zone: 17

13. Briefly describe the proposed change(s) at the facility: This application will address permit coverage for a small natural gas transmission station consisting of two main gas heaters, one generator, and pigging operations

14A. Provide the date of anticipated installation or change: 01/01/2018 – If this is an **After-The-Fact** permit application, provide the date upon which the proposed change did happen:	14B. Date of anticipated Start-Up if a permit is granted: 10/01/2018

14C. Provide a **Schedule** of the planned **Installation** of/**Change** to and **Start-Up** of each of the units proposed in this permit application as **Attachment C** (if more than one unit is involved).

15. Provide maximum projected **Operating Schedule** of activity/activities outlined in this application:
Hours Per Day 24 Days Per Week 7 Weeks Per Year 52

16. Is demolition or physical renovation at an existing facility involved? ☐ **YES** ☒ **NO**

17**. Risk Management Plans.** If this facility is subject to 112(r) of the 1990 CAAA, or will become subject due to proposed changes (for applicability help see www.epa.gov/ceppo), submit your **Risk Management Plan (RMP)** to U. S. EPA Region III.

18**. Regulatory Discussion.** List all Federal and State air pollution control regulations that you believe are applicable to the proposed process *(if known).* A list of possible applicable requirements is also included in Attachment S of this application (Title V Permit Revision Information). Discuss applicability and proposed demonstration(s) of compliance *(if known).* Provide this information as **Attachment D.**

Section II. Additional attachments and supporting documents.

19. Include a check payable to WVDEP – Division of Air Quality with the appropriate **application fee** (per 45CSR22 and 45CSR13).

20. Include a **Table of Contents** as the first page of your application package.

21. Provide a **Plot Plan,** e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is or is to be located as **Attachment E** (Refer to ***Plot Plan Guidance***) **.**

– Indicate the location of the nearest occupied structure (e.g. church, school, business, residence).

22. Provide a **Detailed Process Flow Diagram(s)** showing each proposed or modified emissions unit, emission point and control device as **Attachment F.**

23. Provide a **Process Description** as **Attachment G.**

– Also describe and quantify to the extent possible all changes made to the facility since the last permit review (if applicable).

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

24. Provide **Material Safety Data Sheets (MSDS)** for all materials processed, used or produced as **Attachment H.**

– For chemical processes, provide a MSDS for each compound emitted to the air.

25. Fill out the **Emission Units Table** and provide it as **Attachment I.**

26. Fill out the **Emission Points Data Summary Sheet (Table 1 and Table 2)** and provide it as **Attachment J.**

27. Fill out the **Fugitive Emissions Data Summary Sheet** and provide it as **Attachment K.**

28. Check all applicable **Emissions Unit Data Sheets** listed below:

☐ Bulk Liquid Transfer Operations	☐ Haul Road Emissions	☐ Quarry
☐ Chemical Processes	☐ Hot Mix Asphalt Plant	☐ Solid Materials Sizing, Handling and Storage Facilities
☐ Concrete Batch Plant	☐ Incinerator	☐ Storage Tanks
☐ Grey Iron and Steel Foundry	☒ Indirect Heat Exchanger	

☒ General Emission Unit, specify: Internal Combustion Engine Data Sheet, Blowdowns and Pigging Operations Data Sheet

Fill out and provide the **Emissions Unit Data Sheet(s)** as **Attachment L.**

29. Check all applicable **Air Pollution Control Device Sheets** listed below:

☐ Absorption Systems	☐ Baghouse	☐ Flare
☐ Adsorption Systems	☐ Condenser	☐ Mechanical Collector
☐ Afterburner	☐ Electrostatic Precipitator	☐ Wet Collecting System

☐ Other Collectors, specify

Fill out and provide the **Air Pollution Control Device Sheet(s)** as **Attachment M.**

30. Provide all **Supporting Emissions Calculations** as **Attachment N,** or attach the calculations directly to the forms listed in Items 28 through 31.

31. **Monitoring, Recordkeeping, Reporting and Testing Plans.** Attach proposed monitoring, recordkeeping, reporting and testing plans in order to demonstrate compliance with the proposed emissions limits and operating parameters in this permit application. Provide this information as **Attachment O.**

➢ Please be aware that all permits must be practically enforceable whether or not the applicant chooses to propose such measures. Additionally, the DAQ may not be able to accept all measures proposed by the applicant. If none of these plans are proposed by the applicant, DAQ will develop such plans and include them in the permit.

32. **Public Notice.** At the time that the application is submitted, place a **Class I Legal Advertisement** in a newspaper of general circulation in the area where the source is or will be located (See 45CSR§13-8.3 through 45CSR§13-8.5 and ***Example Legal Advertisement*** for details). Please submit the **Affidavit of Publication** as **Attachment P** immediately upon receipt.

33**. Business Confidentiality Claims.** Does this application include confidential information (per 45CSR31)?

☐ **YES** ☒ **NO**

➢ If **YES,** identify each segment of information on each page that is submitted as confidential and provide justification for each segment claimed confidential, including the criteria under 45CSR§31-4.1, and in accordance with the DAQ's ***"Precautionary Notice – Claims of Confidentiality"*** guidance found in the ***General Instructions*** as **Attachment Q.**

Section III. Certification of Information

34. **Authority/Delegation of Authority.** Only required when someone other than the responsible official signs the application. Check applicable **Authority Form** below:

☐ Authority of Corporation or Other Business Entity	☐ Authority of Partnership
☐ Authority of Governmental Agency	☐ Authority of Limited Partnership

Submit completed and signed **Authority Form** as **Attachment R.**

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

35A. **Certification of Information.** To certify this permit application, a Responsible Official (per 45CSR§13-2.22 and 45CSR§30-2.28) or Authorized Representative shall check the appropriate box and sign below.

Certification of Truth, Accuracy, and Completeness

I, the undersigned ☒ **Responsible Official** / ☐ **Authorized Representative,** hereby certify that all information contained in this application and any supporting documents appended hereto, is true, accurate, and complete based on information and belief after reasonable inquiry I further agree to assume responsibility for the construction, modification and/or relocation and operation of the stationary source described herein in accordance with this application and any amendments thereto, as well as the Department of Environmental Protection, Division of Air Quality permit issued in accordance with this application, along with all applicable rules and regulations of the West Virginia Division of Air Quality and W.Va. Code § 22-5-1 et seq. (State Air Pollution Control Act). If the business or agency changes its Responsible Official or Authorized Representative, the Director of the Division of Air Quality will be notified in writing within 30 days of the official change.

Compliance Certification

Except for requirements identified in the Title V Application for which compliance is not achieved, I, the undersigned hereby certify that, based on information and belief formed after reasonable inquiry, all air contaminant sources identified in this application are in compliance with all applicable requirements.

SIGNATURE Craig Roberts *(Please use blue ink)* DATE: 5-5-17 *(Please use blue ink)*

35B. Printed name of signee: Craig Roberts		35C. Title: Manager of Operations
35D. E-mail: Craig_roberts@transcanada.com	36E. Phone: 304-453-7502	36F. FAX: 304-453-7516
36A. Printed name of contact person (if different from above): Jeff McCombs		36B. Title: Air Permitting Principal
36C. E-mail: Jeffrey_mccombs@transcanada.com	36D. Phone: 724-223-2764	36E. FAX:

PLEASE CHECK ALL APPLICABLE ATTACHMENTS INCLUDED WITH THIS PERMIT APPLICATION:

- ☒ Attachment A: Business Certificate
- ☒ Attachment B: Map(s)
- ☒ Attachment C: Installation and Start Up Schedule
- ☒ Attachment D: Regulatory Discussion
- ☒ Attachment E: Plot Plan
- ☒ Attachment F: Detailed Process Flow Diagram(s)
- ☒ Attachment G: Process Description
- ☒ Attachment H: Material Safety Data Sheets (MSDS)
- ☒ Attachment I: Emission Units Table
- ☒ Attachment J: Emission Points Data Summary Sheet
- ☐ Attachment K: Fugitive Emissions Data Summary Sheet
- ☒ Attachment L: Emissions Unit Data Sheet(s)
- ☐ Attachment M: Air Pollution Control Device Sheet(s)
- ☒ Attachment N: Supporting Emissions Calculations
- ☒ Attachment O: Monitoring/Recordkeeping/Reporting/Testing Plans
- ☒ Attachment P: Public Notice
- ☐ Attachment Q: Business Confidential Claims
- ☐ Attachment R: Authority Forms
- ☐ Attachment S: Title V Permit Revision Information
- ☒ Application Fee

Please mail an original and three (3) copies of the complete permit application with the signature(s) to the DAQ, Permitting Section, at the address listed on the first page of this application. Please DO NOT fax permit applications.

FOR AGENCY USE ONLY – IF THIS IS A TITLE V SOURCE:

- ☐ *Forward 1 copy of the application to the Title V Permitting Group and:*
- ☐ *For Title V Administrative Amendments:*
  - ☐ *NSR permit writer should notify Title V permit writer of draft permit,*
- ☐ *For Title V Minor Modifications:*
  - ☐ *Title V permit writer should send appropriate notification to EPA and affected states within 5 days of receipt,*
  - ☐ *NSR permit writer should notify Title V permit writer of draft permit.*
- ☐ *For Title V Significant Modifications processed in parallel with NSR Permit revision:*
  - ☐ *NSR permit writer should notify a Title V permit writer of draft permit,*
  - ☐ *Public notice should reference both 45CSR13 and Title V permits,*
  - ☐ *EPA has 45 day review period of a draft permit.*

ATTACHMENT A

BUSINESS CERTIFICATE

Rule 13 Permit Application

Saunders Creek RS Station
Milton, West Virginia

Columbia Gas Transmission LLC
1700 MacCorkle Avenue, SE
Charleston WV

May 2017

WEST VIRGINIA
STATE TAX DEPARTMENT
BUSINESS REGISTRATION CERTIFICATE

ISSUED TO:
COLUMBIA GAS TRANSMISSION LLC
5151 SAN FELIPE ST 2500
HOUSTON, TX 77056-3639

BUSINESS REGISTRATION ACCOUNT NUMBER: **1025-1555**

This certificate is issued on: 07/1/2011

This certificate is issued by
the West Virginia State Tax Commissioner
in accordance with Chapter 11, Article 12, of the West Virginia Code

The person or organization identified on this certificate is registered to conduct business in the State of West Virginia at the location above.

This certificate is not transferrable and must be displayed at the location for which issued.

This certificate shall be permanent until cessation of the business for which the certificate of registration was granted or until it is suspended, revoked or cancelled by the Tax Commissioner.

Change in name or change of location shall be considered a cessation of the business and a new certificate shall be required.

TRAVELING/STREET VENDORS: Must carry a copy of this certificate in every vehicle operated by them. CONTRACTORS, DRILLING OPERATORS, TIMBER/LOGGING OPERATIONS: Must have a copy of this certificate displayed at every job site within West Virginia.

atL006 v.4
L1430813824

ATTACHMENT B

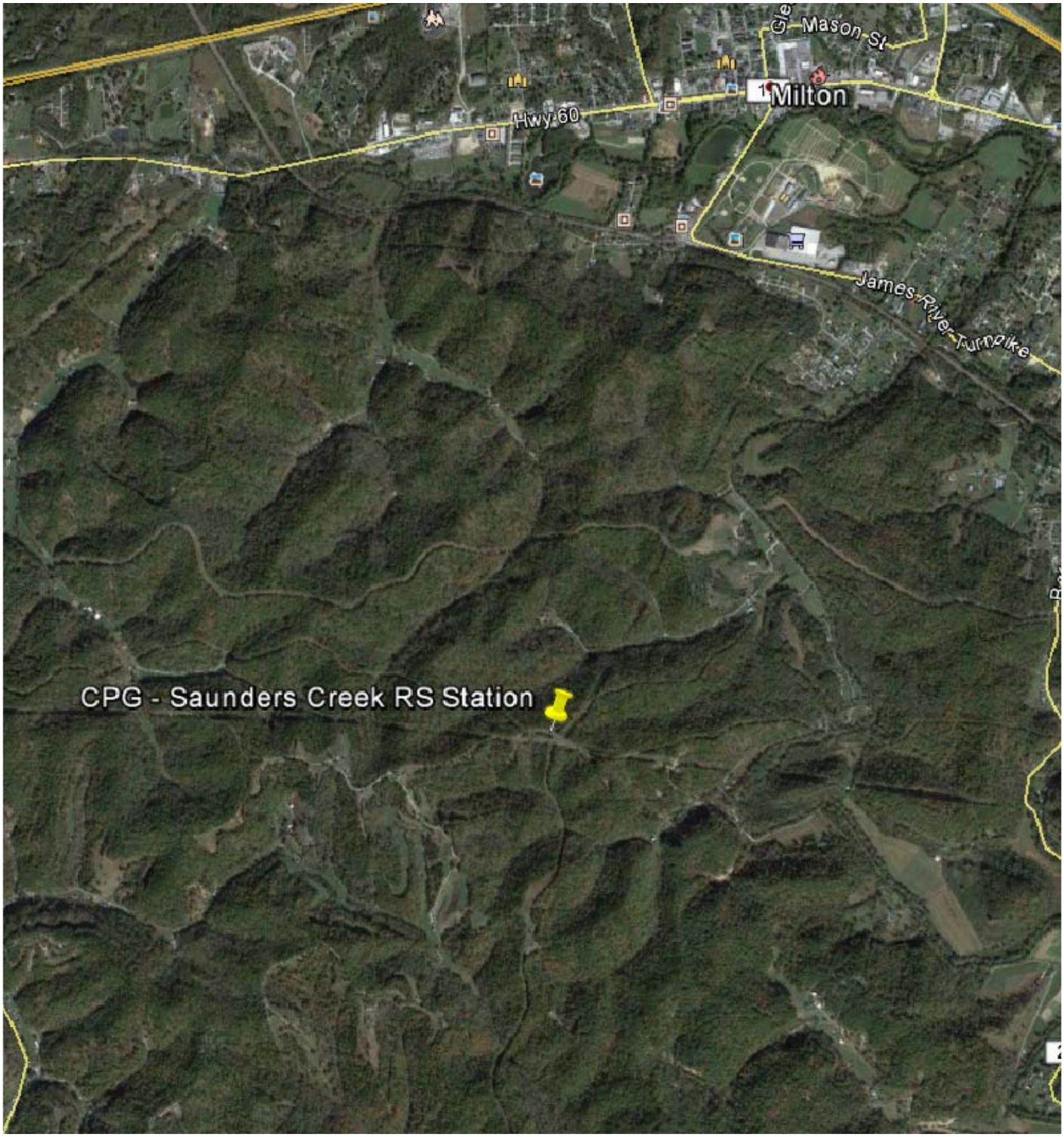
MAP

Rule 13 Permit Application

Saunders Creek RS Station
Milton, West Virginia

Columbia Gas Transmission LLC
1700 MacCorkle Avenue, SE
Charleston WV

May 2017



GPS Coordinates of Site:
Lat: 38.40653, Long: -82.14471

UTM Coordinates of Site:
Northing: 4,251.542 km, Easting: 400.053 km, Zone: 17

Columbia Gas Transmission, LLC
1700 MacCorkle Avenue, SE
Charleston, WV 25314

Report
Rule 13 Permit Application
Saunders Creek RS Station

Drawing
Attachment B - Area Map

Date: March 2017

Drawn By: CLB

Project: 116.01272.00040

SLR

ATTACHMENT C

INSTALLATION AND STARTUP SCHEDULE

Rule 13 Permit Application

Saunders Creek RS Station
Milton, West Virginia

Columbia Gas Transmission LLC
1700 MacCorkle Avenue, SE
Charleston WV

May 2017

INSTALLATION AND STARTUP SCHEDULE

Columbia Gas Transmission, LLC (Columbia) plans to install two 32.12 mmBtu/hr GasTech main gas heaters, one 30 hp Generac RG022 Generator, and a PIG launcher around January 1, 2018. Installation of the equipment is estimated to take a few months. Startup of the equipment at the station is estimated to begin around October 1, 2018.

ATTACHMENT D

REGULATORY DISCUSSION

Rule 13 Permit Application

Saunders Creek RS Station
Milton, West Virginia

Columbia Gas Transmission LLC
1700 MacCorkle Avenue, SE
Charleston WV

May 2017

REGULATORY DISCUSSION

APPLICABLE REGULATIONS

The equipment at this facility is subject to the following applicable rules and regulations:

45 CSR 2 – *To Prevent and Control Particulate Air Pollution Control from Combustion of Fuel in Indirect Heat Exchangers*

The indirect heat exchangers consist of two 32.12 million Btu/hr main gas heaters, which are subject to the visible emission standard of §45-2-3 as follows:

3.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average.

In addition to the visible emission standard, these units will be subject to the particulate matter emission limitation found in §45-2-4.1.b which states "No person shall cause, suffer, allow or permit the discharge of particulate matter into the open air from all fuel burning units located at one plant, measured in terms of pounds per hour in excess of the amount of the product of 0.09 and the total heat input of the unit in mmBtu/hr, provided however that no more than 600 lbs/hr of PM shall be discharged into the open air from all such units." This sets the PM limit for each unit at 2.89 lb/hr [0.09 x 32.12 mmBtu/hr = 2.89 lb/hr]. However these units will comply with this emission limitation by burning pipeline quality natural gas as the sole fuel source and applying an emission factor from AP-42, Section 1.4, Table 1.4.2 for Total PM (Emission Factor = 7.6 lb/mmscf) to estimate emissions from the units. [7.6 lb/mmscf * 32.12 mmBtu/hr * 1 mmscf/1020 mmBtu = 0.24 lb/hr PM]

45 CSR 4 – *To Prevent and Control the Discharge of Air Pollutants into the Open Air Which Causes or Contributes to an Objectionable Odor or Odors*

45 CSR 10 – *To Prevent and Control Air Pollution from the Emission of Sulfur Oxides*

The emission units evaluated within this application utilize fuel burning units subject to this standard and therefore shall comply with the maximum allowable SO2 emission rate limitation found within §45-10-3.3.f which states "No person shall cause, suffer, allow or permit the discharge of sulfur dioxide into the open air from all stacks located at one plant, measured in terms of pounds per hour in excess of the product of 3.2 and the total design heat inputs for such units discharging through those stacks in million BTU's per hour." This sets the SO2 limit for each unit at 48 lb/hr [3.2 x 32.12 mmBtu/hr = 48 lb/hr]. However these units will comply with this emission limitation by applying an industry standard of 0.25 grains Sulfur present per 100 standard cubic feet (scf) of gas as found in AP-42, Section 5.3.1 to estimate emissions from the natural gas fired units.

However, these units are exempted from the requirements of section 8 of this rule for testing, monitoring, recordkeeping, and reporting as found in §45-10-10.3. which states "The owner or operator of a fuel burning unit(s) which combusts natural gas, wood or

distillate oil, alone or in combination, shall be exempt from the requirements of section 8."

45 CSR 11 – *Prevention of Air Pollution Emergency Episodes*

45 CSR 13 – *Permits for Construction, Modification, Relocation, and Operation of Stationary Source of Air Pollutants*

The proposed application will address permit coverage for a small natural gas regulator station consisting of two main gas heaters, one generator, and pigging operations

45 CSR 17 – *To Prevent and Control Particulate Matter Air Pollution from Materials Handling, Preparation, Storage And Other Sources Of Particulate Matter*

Fugitive particulate emissions shall not leave the boundaries of the facility.

40 CFR 60 Subpart Dc – *Standards of Performance for Steam Generating Units*

The main gas heaters at this facility are subject to the recordkeeping requirements of this section as found in 40CFR60.48(g)(1) - Owner/operators shall record and maintain records of the amount of each fuel combusted during each operating day. Said records shall be maintained for two years.

40 CFR 60 Subpart JJJJ – *Standards of Performance for Stationary Spark Ignition Internal Combustion Engines*

This natural gas fired RICE is considered a new unit subject to this NSPS since having been manufactured after January 1, 2009 as defined in 40CFR60.4230(a)(4)(iv) for emergency units with maximum engine power greater than 25 hp. This unit was purchased as a certified emergency unit and operates at a maximum of 500 hours per year

40 CFR 63 Subpart ZZZZ – *NESHAP for Stationary Reciprocating Internal Combustion Engines*

The unit was manufactured after June 12, 2006, and therefore per the definition in 40CFR63.6590(c)(1) this unit shall comply with the requirements of Subpart ZZZZ by complying with the requirements for 40 CFR 60, Subpart JJJJ.

NON-APPLICABILITY DETERMINATIONS

The following requirements have been determined "not applicable" due to the following:

45 CSR 21 – *To Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds*

The station is not engaged in the extraction or fractionation of natural gas which exempts the facility from 45CSR§21-29. No other VOC standards would apply to the emission units at this facility.

45 CSR 27 – *To Prevent and Control the Emissions of Toxic Air Pollutants*

Natural Gas is included as a petroleum product and contains less than 5% benzene by weight. 45CSR§27-2.4 exempts equipment "used in the production and distribution of petroleum products providing that such equipment does not produce or contact materials containing more than 5% benzene by weight".

The wet gas measurements used to for this station are a representative sample taken from another station in the area that estimates the total weight percent of VOC to be 2.21 wt. percent.. From this information, we can reason that since Benzene is lumped into this fraction it will not exceed 5 wt. percent.

40 CFR 60 Subpart KKK – *Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plant*

This subpart is not applicable because the station is not engaged in the extraction or fractionation of natural gas liquids from field gas, the fractionation of mixed natural gas liquids to natural gas products, or both.

40 CFR 60 Subpart OOOOa – *Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification, or Reconstruction Commenced after September 18, 2015*

The GHG and VOC requirements defined by this NSPS are not applicable to this site because this station does not utilize any affected sources defined by the referenced NSPS. The following were evaluated and found non-applicable: centrifugal compressors, reciprocating compressors, pneumatic pumps, pneumatic controllers, or storage vessels, hydraulically fractured wells nor any fugitive emission components at well or compressor affected facilities.

40 CFR 63 Subpart JJJJJJ – *NESHAP for Industrial, Commercial, and Institutional Boilers Area Sources*

This subpart is not applicable since there are no steam generating boilers at this facility as defined in §63.11195.

ATTACHMENT E

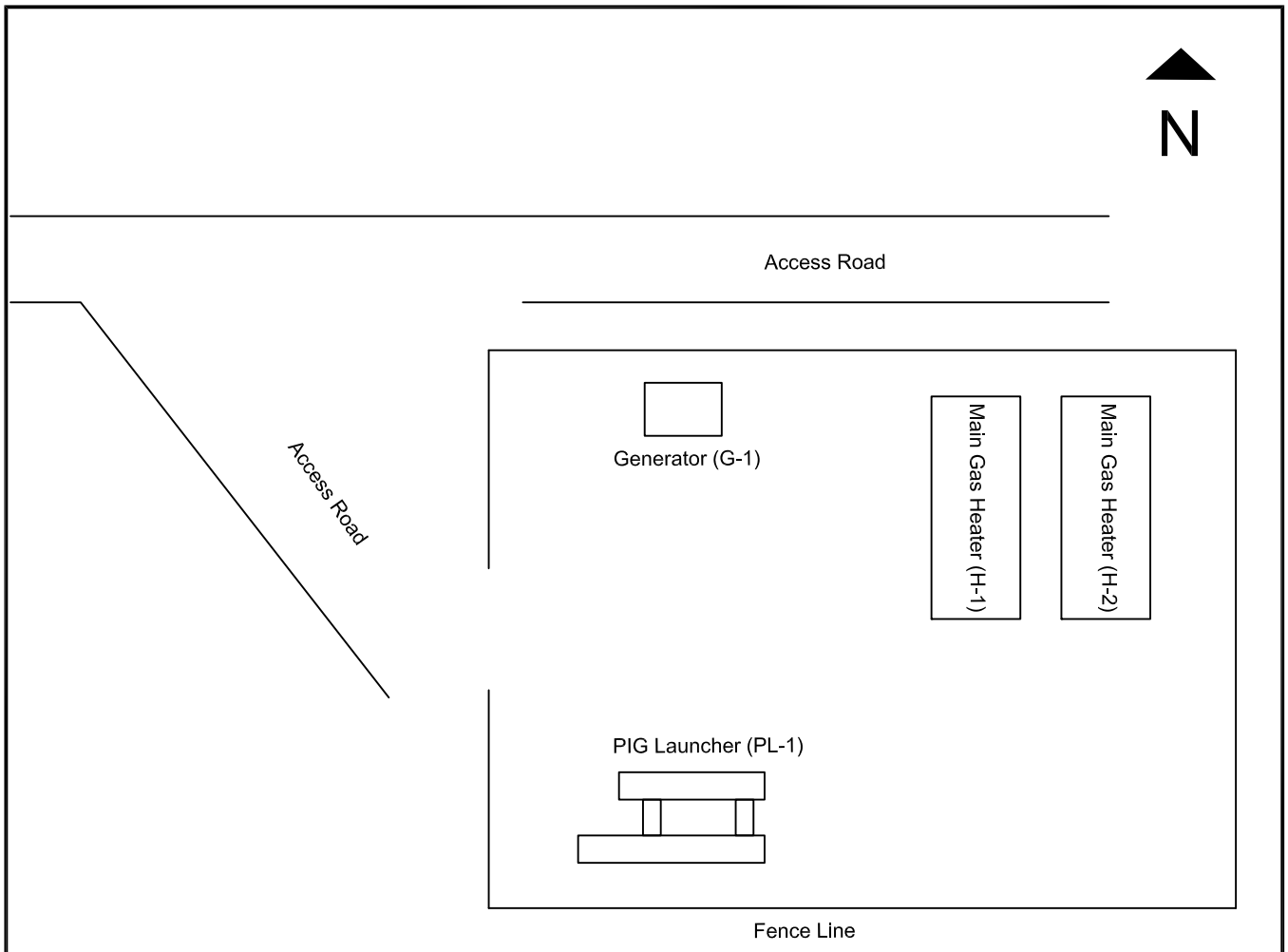
PLOT PLAN

Rule 13 Permit Application

Saunders Creek RS Station
Milton, West Virginia

Columbia Gas Transmission LLC
1700 MacCorkle Avenue, SE
Charleston WV

May 2017



GPS Coordinates of Site:
Lat: 38.40653, Long: -82.14471

UTM Coordinates of Site:
Easting (KM): 400.053
Northing (KM): 4,251.542
Zone: 17

0 50' 100' 150'

DRAWING LEGEND

- O/H Electric Line
- Utility Piping (above ground)
- Piping (under ground)
- Valve
- Plug
- Tree/Brush line
- Crushed Stone Pad
- Storage Tank
- Secondary Containment Area
- Direction of Surface Runoff
- (W) Well Head
- [M] Meter
- (S) Separator
- (D) Drain
- [C] Compressor
- [RM] Residential Meter
- [DRIP] Drip Tank

SLR

Columbia Gas Transmission, LLC

1700 MacCorkle Avenue, SE
Charleston, WV 25314

Report:
Rule 13 Permit Application
Saunders Creek RS Station

Drawing	Drawn By:
Plot Plan	CLB

Date: March 2017	ATTACHMENT E	
	Project #: 116.01272.00040	

ATTACHMENT F

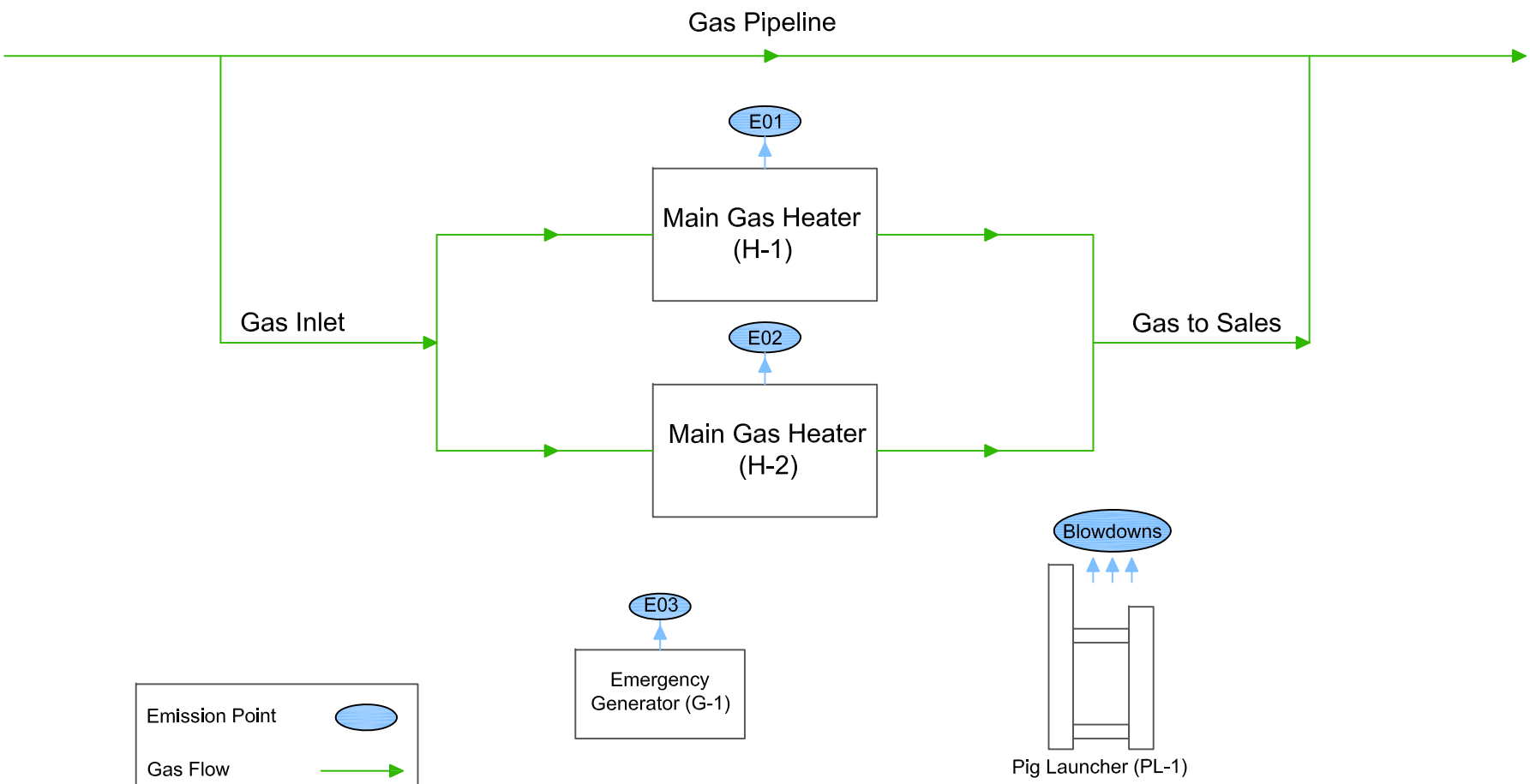
PROCESS FLOW DIAGRAM

Rule 13 Permit Application

Saunders Creek RS Station
Milton, West Virginia

Columbia Gas Transmission LLC
1700 MacCorkle Avenue, SE
Charleston WV

May 2017



SLR	Columbia Gas Transmission, LLC	
	Attachment F - Process Flow Diagram	
	Saunders Creek RS Station	March 2017

ATTACHMENT G

PROCESS DESCRIPTION

Rule 13 Permit Application

Saunders Creek RS Station
Milton, West Virginia

Columbia Gas Transmission LLC
1700 MacCorkle Avenue, SE
Charleston WV

May 2017

PROCESS DESCRIPTION

Columbia Gas Transmission, LLC (Columbia) plans to install two 32.12 mmBtu/hr main gas heaters, one 30 hp Generac RG022 generator and a PIG launcher.

Columbia plans to utilize the equipment on site to help boost gas flow between transmission lines. The two main gas heaters will be utilized to help bring pipeline gas entering the facility to the right temperature and pressure to be transferred to outgoing pipeline leaving the station. The generator onsite will be used in the event of power outage or if equipment is down to help keep the process running. Lastly, at least once annually the PIG launcher will be blown down to clean out the pipelines to help ensure the process is running effectively.

ATTACHMENT H

SAFETY DATA SHEETS

Rule 13 Permit Application

Saunders Creek RS Station
Milton, West Virginia

Columbia Gas Transmission LLC
1700 MacCorkle Avenue, SE
Charleston WV

May 2017

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Processed Natural Gas
Product Code: None
Synonyms: Dry Gas
Generic Name: Natural Gas
Chemical Family: Paraffin hydrocarbon

Responsible Party: Unocal Corporation
Union Oil Company of California
14141 Southwest Freeway
Sugar Land, Texas
77478

For further information contact MSDS Coordinator
8am - 4pm Central Time, Mon - Fri: 281-287-5310

EMERGENCY OVERVIEW

24 Hour Emergency Telephone Numbers:

For Chemical Emergencies:
Spill, Leak, Fire or Accident
Call CHEMTREC
North America: (800)424-9300
Others: (703)527-3887(collect)

For Health Emergencies:
California Poison
Control System
(800)356-3129

Health Hazards: Use with adequate ventilation.

Physical Hazards: Flammable gas. Can cause flash fire. Gas displaces oxygen available for breathing. Keep away from heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment). Do not enter storage areas or confined space unless adequately ventilated.

< Physical Form: Gas
< Appearance: Colorless
< Odor: Odorless in the absence of H2S or mercaptans

NFPA HAZARD CLASS: Health: 1 (Slight)
Flammability: 4 (Extreme)
Reactivity: 0 (Least)

2. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS COMPONENTS	% Weight	EXPOSURE GUIDELINE		
		Limits	Agency	Type
Methane CAS# 74-82-8	98	1000 ppm	MSHA	TWA
Carbon Dioxide CAS# 124-38-9	0-5	5000 ppm	ACGIH	TWA
		30000 ppm	ACGIH	STEL
		5000 ppm	OSHA	TWA
		5000 ppm	MSHA	TWA
		5000 ppm	Cal.OSHA	TWA
		30000 ppm	Cal.OSHA	STEL
Nitrogen CAS# 7727-37-9	0-5	1000 ppm	MSHA	TWA
Ethane CAS# 74-84-0	1	1000 ppm	MSHA	TWA

Note: State, local or other agencies or advisory groups may have established more stringent limits. Consult an industrial hygienist or similar professional, or your local agencies, for further information.

3. HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS:

Eye: Not expected to be an eye irritant.

Skin: Skin contact is unlikely. Skin absorption is unlikely.

Inhalation (Breathing): Asphyxiant. High concentrations in confined spaces may limit oxygen available for breathing.

Ingestion (Swallowing): This material is a gas under normal atmospheric conditions and ingestion is unlikely.

Signs and Symptoms: Light hydrocarbon gases are simple asphyxiants which, at high enough concentrations, can reduce the amount of oxygen available for breathing. Symptoms of overexposure can include shortness of breath, drowsiness, headaches, confusion,

decreased coordination, visual disturbances and vomiting, and are reversible if exposure is stopped. Continued exposure can lead to hypoxia (inadequate oxygen), cyanosis (bluish discoloration of the skin), numbness of the extremities, unconsciousness and death. High concentrations of carbon dioxide can increase heart rate and blood pressure.

Cancer: No data available.

Target Organs: No data available.

Developmental: Limited data - See Other Comments, below.

Other Comments: High concentrations may reduce the amount of oxygen available for breathing, especially in confined spaces. Hypoxia (inadequate oxygen) and respiratory acidosis (increased carbon dioxide in blood), during pregnancy may have adverse effects on the developing fetus. Exposure during pregnancy to high concentrations of carbon monoxide, which is produced during the combustion of hydrocarbon gases, can also cause harm to the developing fetus.

Pre-Existing Medical Conditions: None known.

4. FIRST AID MEASURES

Eye: If irritation or redness develops, move victim away from exposure and into fresh air. Flush eyes with clean water. If symptoms persist, seek medical attention.

Skin: First aid is not normally required. However, it is good practice to wash any chemical from the skin.

Inhalation (Breathing): If respiratory symptoms develop, move victim away from source of exposure and into fresh air. If symptoms persist, seek medical attention. If victim is not breathing, immediately begin artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention.

Ingestion (Swallowing): This material is a gas under normal atmospheric conditions and ingestion is unlikely.

5. FIRE FIGHTING MEASURES

Flammable Properties: Flash Point: Not applicable (gas)
OSHA Flammability Class: Flammable gas
LEL / UEL: No data
Autoignition Temperature: 800-1000°F

Unusual Fire & Explosion Hazards: This material is flammable and may be ignited by heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot lights, or mechanical/electrical equipment). Vapors may travel considerable distances to a source of ignition where they can ignite, flashback, or explode. May create vapor/air explosion hazard indoors, outdoors, or in sewers. If container is not properly cooled, it can rupture in the heat of a fire. Closed containers exposed t extreme heat can rupture due to pressure buildup.

Extinguishing Media: Dry chemical or carbon dioxide is recommended. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces.

Fire Fighting Instructions: For fires beyond the incipient stage, emergency responders in the immediate hazard area should wear bunker gear. When the potential chemical hazard is unknown, in enclosed or confined spaces, or when explicitly required by DOT, a self-contained breathing apparatus should be worn. In addition, wear other appropriate protective equipment as conditions warrant (see Section 8). Isolate immediate hazard area, keep unauthorized personnel out. Stop spill/release if it can be done with minimal risk. If this cannot be done, allow fire to burn. Move undamaged containers from immediate hazard area if it can be done with minimal risk. Stay away from ends of container. Water spray may be useful in minimizing or dispersing vapors. Cool equipment exposed to fire with water, if it can be done with minimal risk.

6. ACCIDENTAL RELEASE MEASURES

Flammable. Keep all sources of ignition and hot metal surfaces away from spill/release. The use of explosion-proof equipment is recommended. Stay upwind and away from spill/release. Notify persons down wind of spill/release, isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done with

minimal risk. Wear appropriate protective equipment including respiratory protection as conditions warrant (see Section 8). Notify fire authorities and appropriate federal, state, and local agencies. Water spray may be useful in minimizing or dispersing vapors (see Section 5).

7. HANDLING AND STORAGE

Handling: The use of explosion-proof equipment is recommended and may be required (see appropriate fire codes). Do not enter confined spaces such as tanks or pits without following proper entry procedures such as ASTM D-4276 and 29CFR 1910.146. The use of appropriate respiratory protection is advised when concentrations exceed any established exposure limits (see Section 2 and 8). Use good personal hygiene practice.

Storage: Keep container(s) tightly closed. Use and store this material in cool, dry, well-ventilated areas away from heat, direct sunlight, hot metal surfaces, and all sources of ignition. Post area "No Smoking or Open Flame." Store only in approved containers. Keep away from any incompatible material (see Section 10). Protect container(s) against physical damage. Outdoor or detached storage is preferred.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls: If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits (see Section 2), additional ventilation or exhaust systems may be required. Where explosive mixtures may be present, electrical systems safe for such locations must be used (see appropriate electrical codes).

Personal Protective Equipment (PPE):

Respiratory: Wear a positive pressure air supplied respirator in oxygen deficient environments (oxygen content <19.5%). A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

Skin: Not required based on the hazards of the material. However, it is considered good practice to wear gloves when handling chemicals.

Eye/Face: While contact with this material is not expected to cause irritation, the use of approved eye protection to safeguard against potential eye contact is considered good practice.

Other Protective Equipment: A source of clean water should be available in the work area for flushing eyes and skin. Impervious clothing should be worn as needed. Self-contained respirators should be available for non-routine and emergency situations.

9. PHYSICAL AND CHEMICAL PROPERTIES

Note: Unless otherwise stated, values are determined at 20°C (68°F) and 760 mm Hg (1 atm).

Flash Point: Not applicable (gas)
Flammable/Explosive Limits (%): No data
Autoignition Temperature: 800-1000°F
Appearance: Colorless
Physical State: Gas
Odor: Odorless in the absence of H2S or mercaptans
Vapor Pressure (mm Hg): No data
Vapor Density (air=1): <1
Boiling Point: -259°F
Freezing/Melting Point: No data
Solubility in Water: Slight
Specific Gravity: 0.30+ (Air=1)
Percent Volatile: 100 vol.%
Evaporation Rate (nBuAc=1): N/A (Gas)

10. STABILITY AND REACTIVITY

Chemical Stability: Stable under normal conditions of storage and handling.

Conditions To Avoid: Avoid all possible sources of ignition (see Sections 5 & 7).

Incompatible Materials: Avoid contact with strong oxidizing agents.

Hazardous Decomposition Products: Combustion can yield carbon dioxide and carbon monoxide.

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

No definitive information available on carcinogenicity, mutagenicity, target organs or developmental toxicity.

12. DISPOSAL CONSIDERATIONS

This material, if discarded as produced, would be a RCRA "characteristic" hazardous waste due to the characteristic(s) of ignitability (D001). If the material is spilled to soil or water, characteristic testing of the contaminated materials is recommended. Further, this material is subject to the land disposal restriction in 40 CFR 268.40 and may require treatment prior to disposal to meet specific standards. Consult state and local regulations to determine whether they are more stringent than the federal requirements.

Container contents should be completely used and containers should be emptied prior to discard. Container rinsate could be considered a RCRA hazardous waste and must be disposed of with care and in full compliance with federal, state and local regulations. Larger empty containers, such as drums, should be returned to the distributor or to a drum reconditioner. To assure proper disposal of smaller empty containers, consult with state and local regulations and disposal authorities.

13. TRANSPORT INFORMATION

DOT Proper Shipping Name / Technical Name: Hydrocarbon Gas, Liquified N.O.S. (Methane)
Hazard Class or Division: 2.1
ID #: UN1965

14. REGULATORY INFORMATION

This material contains the following chemicals subject to the reporting requirements of **SARA 313** and 40 CFR 372:

--None--

Warning: This material contains the following chemicals which are known to the State of California to cause cancer, birth defects or

other reproductive harm, and are subject to the requirements of **California Proposition 65** (CA Health & Safety Code Section 25249.5):

--None Known--

This material has not been identified as a carcinogen by NTP, IARC, or OSHA.

EPA (CERCLA) Reportable Quantity: --None--

15. DOCUMENTARY INFORMATION

Issue Date: 03/18/03
Previous Issue Date: 11/29/99
Product Code: None
Previous Product Code: None

16. DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES

The information in this document is believed to be correct as of the date issued. **HOWEVER, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF THIS INFORMATION, THE RESULTS TO BE OBTAINED FROM THE USE OF THIS INFORMATION OR THE PRODUCT, THE SAFETY OF THIS PRODUCT, OR THE HAZARDS RELATED TO ITS USE.** This information and product are furnished on the condition that the person receiving them shall make his own determination as to the suitability of the product for his particular purpose and on the condition that he assume the risk of his use thereof.

ATTACHMENT I

EMISSION UNITS TABLE

Rule 13 Permit Application

Saunders Creek RS Station
Milton, West Virginia

Columbia Gas Transmission LLC
1700 MacCorkle Avenue, SE
Charleston WV

May 2017

Attachment I

Emission Units Table

(includes all emission units and air pollution control devices that will be part of this permit application review, regardless of permitting status)

Emission Unit ID[1]	Emission Point ID[2]	Emission Unit Description	Year Installed/ Modified	Design Capacity	Type[3] and Date of Change	Control Device[4]
H-1	E01	Main Gas Heater; GasTech; Model # UK	2018	32.12 mmBtu/hr	New	NA
H-2	E02	Main Gas Heater; GasTech; Model # UK	2018	32.12 mmBtu/hr	New	NA
G-1	E03	Reciprocating Engine/Generator Generac Model # RG022; 4SRB	2018	30 hp	New	NA
PL-1	Blowdowns	PIG Launcher Blowdown Venting	2018	32,116.5 ft^3/event	New	NA

[1] For Emission Units (or Sources) use the following numbering system:1S, 2S, 3S,... or other appropriate designation.
[2] For Emission Points use the following numbering system:1E, 2E, 3E, ... or other appropriate designation.
[3] New, modification, removal
[4] For Control Devices use the following numbering system: 1C, 2C, 3C,... or other appropriate designation.

ATTACHMENT J

EMISSION POINTS DATA SUMMARY SHEET(S)

Rule 13 Permit Application

Saunders Creek RS Station
Milton, West Virginia

Columbia Gas Transmission LLC
1700 MacCorkle Avenue, SE
Charleston WV

May 2017

Attachment J
EMISSION POINTS DATA SUMMARY SHEET

Table 1: Emissions Data

Emission Point ID No. *(Must match Emission Units Table & Plot Plan)*	Emission Point Type[1]	Emission Unit Vented Through This Point *(Must match Emission Units Table & Plot Plan)*		Air Pollution Control Device *(Must match Emission Units Table & Plot Plan)*		Vent Time for Emission Unit *(chemical processes only)*		All Regulated Pollutants - Chemical Name/CAS[3] *(Speciate VOCs & HAPS)*	Maximum Potential Uncontrolled Emissions[4]		Maximum Potential Controlled Emissions[5]		Emission Form or Phase *(At exit conditions, Solid, Liquid or Gas/Vapor)*	Est. Method Used[6]	Emission Concentration[7] (ppmv or mg/m^4)
		ID No.	Source	ID No.	Device Type	Short Term[2]	Max (hr/yr)		lb/hr	ton/yr	lb/hr	ton/yr			
E01	Vertical Stack	H-1	Main Gas Heater	NA	NA	C	8760	NO_X CO VOC SO_2 PM_{10} CH2O HAPs CO2e	3.90 2.65 0.17 1.80 0.24 0.01 0.01 3758	17.08 11.59 0.76 0.10 1.05 0.25 0.26 16462	-	-	Gas/ Vapor	EE	Can Supply Upon Request
E02	Vertical Stack	H-2	Main Gas Heater	NA	NA	C	8760	NO_X CO VOC SO_2 PM_{10} CH2O HAPs CO2e	3.90 2.65 0.17 1.80 0.24 0.01 0.01 3758	17.08 11.59 0.76 0.10 1.05 0.25 0.26 16462	-	-	Gas/ Vapor	EE	Can Supply Upon Request
E03	Vertical Stack	G-1	4SRB RICE Generac RG022	NA	NA	C	8760	NO_X CO VOC SO_2 PM_{10} CH2O HAPs CO2e	0.77 1.30 0.01 0.02 0.01 0.01 0.01 40.82	0.19 0.32 0.01 0.01 0.01 0.01 0.01 10.20	-	-	Gas/ Vapor	EE	Can Supply Upon Request
Pigging Blowdowns	Vertical Stack	PL-1	PIG Launcher Blowdown Venting	NA	NA	1 hr/ event	60	VOC CO2e	32.70 3.39	0.02 14.87	-	-	Gas/ Vapor	EE	Can Supply Upon Request

The EMISSION POINTS DATA SUMMARY SHEET provides a summation of emissions by emission unit. Note that uncaptured process emission unit emissions are not typically considered to be fugitive and must be accounted for on the appropriate EMISSIONS UNIT DATA SHEET and on the EMISSION POINTS DATA SUMMARY SHEET. Please note that total emissions from the source are equal to all vented emissions, all fugitive emissions, plus all other emissions (e.g. uncaptured emissions). Please complete the FUGITIVE EMISSIONS DATA SUMMARY

SHEET for fugitive emission activities.

[1] Please add descriptors such as upward vertical stack, downward vertical stack, horizontal stack, relief vent, rain cap, etc.

[2] Indicate by "C" if venting is continuous. Otherwise, specify the average short-term venting rate with units, for intermittent venting (ie., 15 min/hr). Indicate as many rates as needed to clarify frequency of venting (e.g., 5 min/day, 2 days/wk).

[3] List all regulated air pollutants. Speciate VOCs, including all HAPs. Follow chemical name with Chemical Abstracts Service (CAS) number. **LIST** Acids, CO, CS_2, VOCs, H_2S, Inorganics, Lead, Organics, O_3, NO, NO_2, SO_2, SO_3, all applicable Greenhouse Gases (including CO_2 and methane), etc. **DO NOT LIST** H_2, H_2O, N_2, O_2, and Noble Gases.

[4] Give maximum potential emission rate with no control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

[5] Give maximum potential emission rate with proposed control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

[6] Indicate method used to determine emission rate as follows: MB = material balance; ST = stack test (give date of test); EE = engineering estimate; O = other (specify).

[7] Provide for all pollutant emissions. Typically, the units of parts per million by volume (ppmv) are used. If the emission is a mineral acid (sulfuric, nitric, hydrochloric or phosphoric) use units of milligram per dry cubic meter (mg/m^3) at standard conditions (68 °F and 29.92 inches Hg) (see 45CSR7). If the pollutant is SO_2, use units of ppmv (See 45CSR10).

ATTACHMENT K

FUGITIVE EMISSIONS DATA SHEET(S) (SEE NOTE)

Note: No fugitive emissions associated with this permit application.

Rule 13 Permit Application

Saunders Creek RS Station
Milton, West Virginia

Columbia Gas Transmission LLC
1700 MacCorkle Avenue, SE
Charleston WV

May 2017

ATTACHMENT L

EMISSION UNIT DATA SHEET(S)

Rule 13 Permit Application

Saunders Creek RS Station
Milton, West Virginia

Columbia Gas Transmission LLC
1700 MacCorkle Avenue, SE
Charleston WV

May 2017

BLOWDOWN AND PIGGING OPERATIONS DATA SHEET

Will there be any blowdown and pigging operations that occur at this facility?

☒ Yes ☐ No

Please list:

Type of Event	# of Events (event/yr)	Amount Vented per event (scf/event)	MW of vented gas (lb/lb-mol)	Total Emissions (ton/yr)	VOC weight fraction	VOC emissions (ton/yr)
Compressor Blowdown						
Compressor Startup						
Plant Shutdown						
Low Pressure Pig Venting	1	32,116.5	17.74	0.74	2.21	0.02
High Pressure Pig Venting						

INTERNAL COMBUSTION ENGINE DATA SHEET

Complete this data sheet for each internal combustion engine at the facility. Include manufacturer performance data sheet(s) or any other supporting document if applicable. Use extra pages if necessary. *Generator(s) and microturbine generator(s) shall also use this form.*

Emission Unit ID#[1]		G-1					
Engine Manufacturer/Model		Generac / RG022					
Manufacturers Rated bhp/rpm		30 / 1,980					
Source Status[2]		NS					
Date Installed/ Modified/Removed/Relocated[3]		2017					
Engine Manufactured /Reconstruction Date[4]		2017					
Check all applicable Federal Rules for the engine (include EPA Certificate of Conformity if applicable)[5]		☒40CFR60 Subpart JJJJ ☒JJJJ Certified? ☐40CFR60 Subpart IIII ☐IIII Certified? ☒40CFR63 Subpart ZZZZ ☐ NESHAP ZZZZ/ NSPS JJJJ Window ☐ NESHAP ZZZZ Remote Sources		☐40CFR60 Subpart JJJJ ☐JJJJ Certified? ☐40CFR60 Subpart IIII ☐IIII Certified? ☐40CFR63 Subpart ZZZZ ☐ NESHAP ZZZZ/ NSPS JJJJ Window ☐ NESHAP ZZZZ Remote Sources		☐40CFR60 Subpart JJJJ ☐JJJJ Certified? ☐40CFR60 Subpart IIII ☐IIII Certified? ☐40CFR63 Subpart ZZZZ ☐ NESHAP ZZZZ/ NSPS JJJJ Window ☐ NESHAP ZZZZ Remote Sources	
Engine Type[6]		4SRB					
APCD Type[7]		A/F					
Fuel Type[8]		PQ					
H_2S (gr/100 scf)		0.25					
Operating bhp/rpm		30 / 1,980					
BSFC (BTU/bhp-hr)		11,824					
Hourly Fuel Throughput		342.0 ft^3/hr					
Annual Fuel Throughput (Must use 8,760 hrs/yr unless emergency generator)		0.17 $MMft^3/yr$ gal/yr					
Fuel Usage or Hours of Operation Metered		Yes ☒ No ☐		Yes ☐ No ☐		Yes ☐ No ☐	
Calculation Methodology[9]	**Pollutant[10]**	**Hourly PTE (lb/hr)[11]**	**Annual PTE (tons/year)[11]**	**Hourly PTE (lb/hr)[11]**	**Annual PTE (tons/year)[11]**	**Hourly PTE (lb/hr)[11]**	**Annual PTE (tons/year)[11]**
AP	NO_x	0.77	0.19				
AP	CO	1.30	0.32				
AP	VOC	0.01	0.01				
AP	SO_2	0.02	0.01				
AP	PM_{10}	0.01	0.01				
AP	Formaldehyde	0.01	0.01				
AP	Total HAPs	0.01	0.01				
AP	GHG (CO_2e)	40.82	10.20				

1 Enter the appropriate Source Identification Number for each natural gas-fueled reciprocating internal combustion compressor/generator engine located at the compressor station. Multiple compressor engines should be designated CE-1, CE-2, CE-3 etc. Generator engines should be designated GE-1, GE-2, GE-3 etc. Microturbine generator engines should be designated MT-1, MT-2, MT-3 etc. If more than three (3) engines exist, please use additional sheets.

2 Enter the Source Status using the following codes:

NS	Construction of New Source (installation)	ES	Existing Source
MS	Modification of Existing Source	RS	Relocated Source
REM	Removal of Source		

3 Enter the date (or anticipated date) of the engine's installation (construction of source), modification, relocation or removal.

4 Enter the date that the engine was manufactured, modified or reconstructed.

5 Is the engine a certified stationary spark ignition internal combustion engine according to 40CFR60 Subpart IIII/JJJJ? If so, the engine and control device must be operated and maintained in accordance with the manufacturer's emission-related written instructions. You must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required. If the certified engine is not operated and maintained in accordance with the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine and you must demonstrate compliance as appropriate.

Provide a manufacturer's data sheet for all engines being registered.

6 Enter the Engine Type designation(s) using the following codes:

2SLB	Two Stroke Lean Burn	4SRB	Four Stroke Rich Burn
4SLB	Four Stroke Lean Burn		

7 Enter the Air Pollution Control Device (APCD) type designation(s) using the following codes:

A/F	Air/Fuel Ratio	IR	Ignition Retard
HEIS	High Energy Ignition System	SIPC	Screw-in Precombustion Chambers
PSC	Prestratified Charge	LEC	Low Emission Combustion
NSCR	Rich Burn & Non-Selective Catalytic Reduction	OxCat	Oxidation Catalyst
SCR	Lean Burn & Selective Catalytic Reduction		

8 Enter the Fuel Type using the following codes:

PQ	Pipeline Quality Natural Gas	RG	Raw Natural Gas /Production Gas	D	Diesel

9 Enter the Potential Emissions Data Reference designation using the following codes. Attach all reference data used.

MD	Manufacturer's Data	AP	AP-42	
GR	GRI-HAPCalc™	OT	Other	(please list)

10 Enter each engine's Potential to Emit (PTE) for the listed regulated pollutants in pounds per hour and tons per year. PTE shall be calculated at manufacturer's rated brake horsepower and may reflect reduction efficiencies of listed Air Pollution Control Devices. Emergency generator engines may use 500 hours of operation when calculating PTE. PTE data from this data sheet shall be incorporated in the *Emissions Summary Sheet*.

11 PTE for engines shall be calculated from manufacturer's data unless unavailable.

Attachment L
Emission Unit Data Sheet
(INDIRECT HEAT EXCHANGER)

Control Device ID No. (must match List Form):

Equipment Information

1. Manufacturer: Gas Tech	2. Model No. Serial No.
3. Number of units: 2	4. Use
5. Rated Boiler Horsepower: NA hp	6. Boiler Serial No.: NA
7. Date constructed:	8. Date of last modification and explain:
9. Maximum design heat input per unit: 32.12 $\times 10^6$ BTU/hr	10. Peak heat input per unit: 32.12 $\times 10^6$ BTU/hr
11. Steam produced at maximum design output: LB/hr psig	12. Projected Operating Schedule: Hours/Day 24 Days/Week 7 Weeks/Year 52
13. Type of firing equipment to be used: ☐ Pulverized coal ☐ Spreader stoker ☐ Oil burners ☒ Natural Gas Burner ☐ Others, specify	14. Proposed type of burners and orientation: ☐ Vertical ☐ Front Wall ☐ Opposed ☐ Tangential ☒ Others, specify Horizontal Fire Tube
15. Type of draft: ☐ Forced ☐ Induced	16. Percent of ash retained in furnace: %
17. Will flyash be reinjected? ☐ Yes ☒ No	18. Percent of carbon in flyash: %

Stack or Vent Data

19. Inside diameter or dimensions: ft.	20. Gas exit temperature: °F
21. Height: ft.	22. Stack serves: ☒ This equipment only ☐ Other equipment also (submit type and rating of all other equipment exhausted through this stack or vent)
23. Gas flow rate: 524.8 ft^3/min	
24. Estimated percent of moisture: %	

Fuel Requirements

25.	Type	Fuel Oil No.	Natural Gas	Gas (other, specify)	Coal, Type:	Other:
	Quantity (at Design Output)	gph@60°F	31,490 ft^3/hr	ft^3/hr	TPH	
	Annually	$\times 10^3$ gal	275.85 $\times 10^6$ ft^3/hr	$\times 10^6$ ft^3/hr	tons	
	Sulfur	Maximum: wt. % Average: wt. %	0.25 gr/100 ft^3	gr/100 ft^3	Maximum: wt. %	
	Ash (%)				Maximum	
	BTU Content	BTU/Gal. Lbs/Gal.@60°F	1,020 BTU/ft^3	BTU/ft^3	BTU/lb	
	Source					
	Supplier					
	Halogens (Yes/No)					
	List and Identify Metals					

26. Gas burner mode of control:
☐ Manual ☐ Automatic hi-low
☒ Automatic full modulation ☐ Automatic on-off

27. Gas burner manufacture: GasTech

28. Oil burner manufacture: NA

29. If fuel oil is used, how is it atomized? ☐ Oil Pressure ☐ Steam Pressure ☐ Compressed Air ☐ Rotary Cup ☐ Other, specify

30. Fuel oil preheated: ☐ Yes ☒ No

31. If yes, indicate temperature: °F

32. Specify the calculated theoretical air requirements for combustion of the fuel or mixture of fuels described above actual cubic feet (ACF) per unit of fuel:
@ °F, PSIA, % moisture

33. Emission rate at rated capacity: lb/hr

34. Percent excess air actually required for combustion of the fuel described: %

Coal Characteristics

35. Seams: Not Applicable (NA)

36. Proximate analysis (dry basis): % of Fixed Carbon: % of Sulfur:
% of Moisture: % of Volatile Matter:
% of Ash:

Emissions Stream

37. What quantities of pollutants will be emitted from the boiler before controls?

Pollutant	Pounds per Hour lb/hr	grain/ACF	@ °F	PSIA
CO	2.65	-	-	-
Hydrocarbons	-	-	-	-
NO_x	3.90	-	-	-
Pb	-	-	-	-
PM_{10}	0.24	-	-	-
SO_2	0.02	-	-	-
VOCs	0.17	-	-	-
Other (specify) HAPs	0.06	-	-	-

38. What quantities of pollutants will be emitted from the boiler after controls?

Pollutant	Pounds per Hour lb/hr	grain/ACF	@ °F	PSIA
CO	2.65	-	-	-
Hydrocarbons	-	-	-	-
NO_x	3.90	-	-	-
Pb	-	-	-	-
PM_{10}	0.24	-	-	-
SO_2	0.02	-	-	-
VOCs	0.17	-	-	-
Other (specify) HAPs	0.06	-	-	-

39. How will waste material from the process and control equipment be disposed of?

40. Have you completed an *Air Pollution Control Device Sheet(s)* for the control(s) used on this Emission Unit.

41. Have you included the ***air pollution rates*** on the Emissions Points Data Summary Sheet?

42. **Proposed Monitoring, Recordkeeping, Reporting, and Testing**

Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the proposed operating parameters. Please propose testing in order to demonstrate compliance with the proposed emissions limits.

MONITORING PLAN: Please list (1) describe the process parameters and how they were chosen (2) the ranges and how they were established for monitoring to demonstrate compliance with the operation of this process equipment operation or air pollution control device.

The owner or operator shall monitor the quality and quantitiy of fuel consumed in each unit on a daily basis

TESTING PLAN: Please describe any proposed emissions testing for this process equipment or air pollution control device.

The owner or operator shall perform visible emission observations in accordance with 40 CFR 60, Appendix A, Method 9.

At the Director's request the owner or operator of any fuel burning unit may be required to conduct testing to determine compliance with Section 4 of 45CSR2.

RECORDKEEPING: Please describe the proposed recordkeeping that will accompany the monitoring.

The owner or operator shall maintain records of the operating schedule and the quantity and quaility of fuel consumed in each unit on a daily basis for atleast two years.

REPORTING: Please describe the proposed frequency of reporting of the recordkeeping.

In a manner and at a frequency established by the Director, the owner or operator shall submit a periodic exception report to the Director. In addition, the owner or operator will report to the Director any equipment malfunctions or opacity and emission limit deviations.

43. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty.

ATTACHMENT M

AIR POLLUTION CONTROL DEVICE SHEET(S) (SEE NOTE)

Note: No APCD utilized at this facility.

Rule 13 Permit Application

Saunders Creek RS Station
Milton, West Virginia

Columbia Gas Transmission LLC
1700 MacCorkle Avenue, SE
Charleston WV

May 2017

ATTACHMENT N

SUPPORTING EMISSIONS CALCULATIONS

Rule 13 Permit Application

Saunders Creek RS Station
Milton, West Virginia

Columbia Gas Transmission LLC
1700 MacCorkle Avenue, SE
Charleston WV

May 2017

Table 1. Annual Potential To Emit (PTE) Summary
Columbia Gas Transmission - Saunders Creek RS Station

Criteria Pollutants

Proposed PTE - Criteria Pollutants

Source	PM	PM10	PM2.5	SO2	NOx	CO	VOC	CO2e
Engines (ton/yr)	0.002	0.002	0.002	0.000	0.193	0.324	0.003	10.204
Heaters/Boilers/Reboilers (ton/yr)	2.096	2.096	2.096	0.197	34.164	23.172	1.517	32923.217
Pig Launcher (ton/yr)	-	-	-	-	-	-	0.016	14.869
Total Emissions (ton/yr)	2.098	2.098	2.098	0.197	34.357	23.496	1.536	32948.291
Total Emissions (lb/hr)	0.479	0.479	0.479	0.045	7.844	5.364	0.351	7522.441

Hazardous Air Pollutants (HAPs)

Proposed PTE - HAPs

Source	Acetaldehyde	Benzene	Toluene	Ethylbenzene	Xylene	n-Hexane	Formaldehyde	Total HAPs
Engines (ton/yr)	0.0002	0.0001	0.0000	0.0000	0.0000	-	0.002	0.003
Heaters/Boilers/Reboilers (ton/yr)	-	0.0006	0.0009	-	-	0.4965	0.021	0.521
Pig Launcher (ton/yr)	-	-	-	-	-	-	-	0.000
Total Emissions (ton/yr)	0.000	0.001	0.001	0.000	0.000	0.497	0.022	0.524
Total Emissions (lb/hr)	0.000	0.000	0.000	0.000	0.000	0.113	0.005	0.120

Table 2. Reciprocating Engine / Generator Emissions (G-1)
Generac Model # RG022 (EPA Certified for Emergency Use)
Columbia Gas Transmission - Saunders Creek RS Station

Pollutant	Emission Factor		PTE (lb/hr)		PTE (ton/yr)	
Criteria Pollutants						
PM/PM10/PM2.5**	1.94E-02 lb/MMBtu	(1)	0.007	(a)	0.002	(c)
SO_2 (Hourly)	20.0 grains S / 100 ft^3	(2)	0.020	(e)	-	
SO_2 (Annual)	0.25 grains S / 100 ft^3	(2)	-		0.000	(f)
NOx	2.21E+00 lb/MMBtu	(1)	0.77	(a)	0.19	(c)
CO	3.72E+00 lb/MMBtu	(1)	1.30	(a)	0.32	(c)
VOC	2.96E-02 lb/MMBtu	(1)	0.01	(a)	0.00	(c)
Hazardous Air Pollutants						
1,1,2,2-Tetrachloroethane	2.53E-05 lb/MMBtu	(1)	0.000	(a)	0.000	(c)
1,1,2-Trichloroethane	1.53E-05 lb/MMBtu	(1)	0.000	(a)	0.000	(c)
1,3-Butadiene	6.63E-04 lb/MMBtu	(1)	0.000	(a)	0.000	(c)
1,3-Dichloropropene	1.27E-05 lb/MMBtu	(1)	0.000	(a)	0.000	(c)
Acetaldehyde	2.79E-03 lb/MMBtu	(1)	0.001	(a)	0.000	(c)
Acrolein	2.63E-03 lb/MMBtu	(1)	0.001	(a)	0.000	(c)
Benzene	1.58E-03 lb/MMBtu	(1)	0.001	(a)	0.000	(c)
Carbon Tetrachloride	1.77E-05 lb/MMBtu	(1)	0.000	(a)	0.000	(c)
Chlorobenzene	1.29E-05 lb/MMBtu	(1)	0.000	(a)	0.000	(c)
Chloroform	1.37E-05 lb/MMBtu	(1)	0.000	(a)	0.000	(c)
Ethylbenzene	2.48E-05 lb/MMBtu	(1)	0.000	(a)	0.000	(c)
Ethylene Dibromide	2.13E-05 lb/MMBtu	(1)	0.000	(a)	0.000	(c)
Formaldehyde	2.05E-02 lb/MMBtu	(1)	0.007	(a)	0.002	(c)
Methanol	3.06E-03 lb/MMBtu	(1)	0.001	(a)	0.000	(c)
Methylene Chloride	4.12E-05 lb/MMBtu	(1)	0.000	(a)	0.000	(c)
Naphthalene	9.71E-05 lb/MMBtu	(1)	0.000	(a)	0.000	(c)
PAH (POM)	1.41E-04 lb/MMBtu	(1)	0.000	(a)	0.000	(c)
Styrene	1.19E-05 lb/MMBtu	(1)	0.000	(a)	0.000	(c)
Toluene	5.58E-04 lb/MMBtu	(1)	0.000	(a)	0.000	(c)
Vinyl Chloride	7.16E-06 lb/MMBtu	(1)	0.000	(a)	0.000	(c)
Xylenes	1.95E-04 lb/MMBtu	(1)	0.000	(a)	0.000	(c)
Total HAPs			**0.011**		**0.003**	
Greenhouse Gas Emissions						
CO_2	116.89 lb/MMBtu	(4)	40.78	(a)	10.19	(c)
CH_4	2.2E-03 lb/MMBtu	(4)	0.00	(a)	0.00	(c)
N_2O	2.2E-04 lb/MMBtu	(4)	0.00	(a)	0.00	(c)
CO_2e[(g)]	- -		40.82		10.20	

** Pm emission factor includes condensables and filterables

Calculations:

Hourly Emissions - If emission factor note 1 or 4 is used, use calculation (a). If emission factor note 3 is used, use calculation (b).

(a) Maximum Hourly Emissions (lb/hr) = Emission factor (lb/MMBtu) * (1MMBtu/1000000 Btu) * Engine Power Output (hp) * Average BSFC (Btu/hp-hr)

(b) Maximum Hourly Emissions (lb/hr) = Emission factor (lb/hp-hr) * Engine Power Output (hp)

Annual Emissions - If emission factor note 1 or 4 is used, use calculation (c). If emission factor note 3 is used, use calculation (d).

(c) Annual emissions (tons/yr) = Emission factor (lb/MMBtu) * (1MMBtu/1000000Btu) * Engine Power Output (hp) * Average BSFC (Btu/hp-hr) * Annual Hours of operation (hr/yr) * (1ton/2000lbs)

(d) Annual emissions (tons/yr) = Emission factor (lb/hp-hr) * Engine Power Output (hp) * Annual Hours of operation (hr/yr) * (1ton/2000lbs)

SO_2 Emissions - If emission factor note 2 is used, use calculations (e) and (f) for hourly and annual emissions, respectively.

(e) Maximum Hourly Emissions SO2 Caclulation (lb/hr) = (20.0 grain S/100ft3) * Fuel throughput (ft3/hr) * (1lb/7000 grains) * (lbmol S/32.06 lb S) * (lbmol SO2/ lbmol S) *(64.07 lb SO2/lbmol SO2)

(f) Annual Emissions SO2 Caclulation (ton/yr) = (0.25 grain S/100ft3) * Fuel throughput (ft3/hr) * (1lb/7000 grains) * (lbmol S/32.06 lb S) * (lbmol SO2/ lbmol S) *(64.07 lb SO2/lbmol SO2) * Annual hours of operation (hr/yr) * (1ton/2000lbs)

EMISSION INPUTS TABLE		
Engine Power Output (kW) =	22	
Engine Power Output (hp) =	30	
Number of Engines =	1	
Average BSFC (BTU/HP-hr) =	11,824	(5)
Heat Content Natural Gas(Btu/scf) =	1,020.0	(6)
Fuel Throughput (ft3/hr) =	342.0	(7)
PTE Hours of Operation =	500	

(g) CO_2 equivalent = [(CO_2 emissions)*(GWP_{CO2})]+[(CH_4 emissions)*(GWP_{CH4})]+[(N_2O emissions)*(GWP_{N2O})]
Global Warming Potential (GWP)

CO_2	1	(8)
CH_4	25	(8)
N_2O	298	(8)

Notes:

(1) AP-42, Chapter 3.2, Table 3.2-3. - *Uncontrolled Emission Factors for 4-Stroke Rich Burn Engines* (7/00)

(2) AP-42, Chapter 5.3, Section 5.3.1

(3) Emission factors supplied from vendor data

(4) Emission factors supplied from 40 CFR 98, Subpart C, Table C-1 and C-2.

(5) Fuel consumption from manufacturer's specification sheet.

(6) Value obtained from AP-42, Chapter 3.2, Table 3.2-3, footnote b

(7) Fuel throughput = BSFC (BTU/HP-hr) x Power (HP) / Heat Content (BTU/scf)

(8) Global Warming Potentials obtained from 40 CFR 98, Subpart A, Table A-1

Table 3. Main Gas Heater Emissions (H-1 & H-2)
GasTech; Model # UK
Columbia Gas Transmission - Saunders Creek RS Station

Pollutant	Emission Factor		PTE (lb/hr)		PTE (ton/yr)	
Criteria Pollutants						
PM/PM10/PM2.5	7.6 lb/MMcf	(1)	0.24	(a)	1.05	(b)
SO_2	0.25 grains S / 100ft^3	(5)	0.02	(e)	0.10	(f)
NOx	124 lb/MMcf	(8)	3.90	(a)	17.08	(b)
CO	84 lb/MMcf	(2)	2.65	(a)	11.59	(b)
VOC	5.5 lb/MMcf	(1)	0.17	(a)	0.76	(b)
Hazardous Air Pollutants						
Arsenic	2.00E-04 lb/MMcf	(3)	0.00	(a)	0.000	(b)
Benzene	2.10E-03 lb/MMcf	(4)	0.00	(a)	0.000	(b)
Beryllium	1.20E-05 lb/MMcf	(3)	0.00	(a)	0.000	(b)
Cadmium	1.10E-03 lb/MMcf	(3)	0.00	(a)	0.000	(b)
Chromium	1.40E-03 lb/MMcf	(3)	0.00	(a)	0.000	(b)
Cobalt	8.40E-05 lb/MMcf	(3)	0.00	(a)	0.000	(b)
Dichlorobenzene	1.20E-03 lb/MMcf	(4)	0.00	(a)	0.000	(b)
Formaldehyde	7.50E-02 lb/MMcf	(4)	0.00	(a)	0.010	(b)
Hexane	1.80E+00 lb/MMcf	(4)	0.06	(a)	0.248	(b)
Lead	5.00E-04 lb/MMcf	(3)	0.00	(a)	0.000	(b)
Manganese	3.80E-04 lb/MMcf	(3)	0.00	(a)	0.000	(b)
Mercury	2.60E-04 lb/MMcf	(3)	0.00	(a)	0.000	(b)
Naphthalene	6.10E-04 lb/MMcf	(4)	0.00	(a)	0.000	(b)
Nickel	2.10E-03 lb/MMcf	(3)	0.00	(a)	0.000	(b)
PAH/POM	1.29E-03 lb/MMcf	(4)	0.00	(a)	0.000	(b)
Selenium	2.40E-05 lb/MMcf	(3)	0.00	(a)	0.000	(b)
Toluene	3.40E-03 lb/MMcf	(4)	0.00	(a)	0.000	(b)
Total HAP			0.00		0.261	
Greenhouse Gas Emissions						
CO_2	116.89 lb/MMBtu	(6)	3754.48	(c)	16444.61	(d)
CH_4	2.2E-03 lb/MMBtu	(6)	0.07	(c)	0.31	(d)
N_2O	2.2E-04 lb/MMBtu	(6)	0.01	(c)	0.03	(d)
CO_2e[(g)]	- -		3758.36		16461.61	

Calculations:

LB/MMCF

(a) Hourly emissions (lb/hr) = Emission Factor (lb/MMcf) * Fuel Use (MMCF/yr) / Annual hours of operation (hr/yr)

(b) Annual emissions (ton/yr) = Emission Factor (lb/MMcf) * Fuel Use (MMcf/yr) * (1ton/2000lbs)

LB/MMBTU

(c) Hourly Emissions (lb/hr) = Emission Factor (lb/MMBtu) * Fuel Use (MMBtu/hr)

(d) Annual Emissions (ton/yr) = Emission Factor (lb/MMBtu) * Fuel Use (MMBtu/hr) * Hours of operation (hr/yr) * (1ton/2000lbs)

SO_2

(e) Hourly Emissions SO2 Caclulation (lb/hr) = (0.25 grain S/100ft3) * Fuel throughput (MMft3/yr) * (1000000ft3/1MMft3) / annual hours of operation (hr/yr) * (1lb/7000 grains) * (lbmol S/32.06 lb S) * (lbmol SO2/ lbmol S) *(64.07 lb SO2/lbmol SO2)

(f) Annual Emissions SO2 Caclulation (ton/yr) = (0.25 grain S/100ft3) * Fuel throughput (MMft3/yr) * (1000000ft3/1MMft3) * (1lb/7000 grains) * (lbmol S/32.06 lb S) * (lbmol SO2/ lbmol S) *(64.07 lb SO2/lbmol SO2) * (1ton/2000lbs)

EMISSION INPUTS TABLE	
Fuel Use (MMBtu/hr) =	32.12
Number of Units =	2
Hours of Operation (hr/yr)=	8760
MMBtu/MMcf=	1020
PTE Fuel Use (MMft3/yr) =	275.85

(g) CO_2 equivalent = [(CO_2 emissions)*(GWP_{CO2})]+[(CH_4 emissions)*(GWP_{CH4})]+[(N_2O emissions)*(GWP_{N2O})]

Global Warming Potential (GWP)

CO_2	1	(7)
CH_4	25	(7)
N_2O	298	(7)

Notes:

(1) AP-42, Chapter 1.4, Table 1.4-2. Emission Factors For Criteria Pollutants and Greenhouse Gases From Natural Gas Combustion, July 1998.

(2) AP-42, Chapter 1.4, Table 1.4-1. Emission Factors For Nitrogen Oxides (Nox) and Carbon Monoxide(CO) From Natural Gas Combustion, July 1998.

(3) AP-42, Chapter 1.4, Table 1.4-4. Emission Factors For Metals From Natural Gas Combustion, July 1998.

(4) AP-42, Chapter 1.4, Table 1.4-3. Emission Factors for Speciated Organic Compounds from Natural Gas Combustion, July 1998.

(5) AP-42, Chapter 5.3, Section 5.3.1

(6) Emission factors are from 40 CFR 98, Subpart C, Table C-1 and C-2.

(7) Global Warming Potentials obtained from 40 CFR 98, Subpart A, Table A-1

(8) Emission Factors Derived from Manufacturer's Maximum Rated Capacity Pollutant Concentrations

Table 4. Pig Launcher Blowdown Venting Emissions (PL-1)
Columbia Gas Transmission - Saunders Creek RS Station

Receiver Tube:	Diameter (ft)	Length (ft)	**Volume (ft^3)**
	3.50	37.50	**360.792**

Blowdown:	Standard Pressure (psi)	Standard Temp (^oF)	Pressure (psi)	Temperature (^oF)	**Volume (ft^3)**
	14.70	68.00	1348.00	90.00	**32116.51**

Pollutant:	Volume (ft^3/event)	Moles (lb_{mol})	Molecular Weight of Gas (lbs/lb_{mol})	Wt % VOC	lbs VOC/event	Events/yr	**Emissions (lbs/hr)**	**Emissions (ton/yr)**
VOC	32116.51	83.42	17.74	2.21%	32.70	1	**32.70**	**0.02**
CO_2e	-	-	-	**-**	**-**	1	**3.39**	**14.87**

ATTACHMENT O

MONITORING/RECORDKEEPING/REPORTING/ TESTING PLANS

Rule 13 Permit Application

Saunders Creek RS Station
Milton, West Virginia

Columbia Gas Transmission LLC
1700 MacCorkle Avenue, SE
Charleston WV

May 2017

MONITORING, RECORD KEEPING, REPORTING, TESTING PLANS

Monitoring

Columbia will monitor the quality and quantity of fuel consumed in each line heater unit on a daily basis. In addition, the company will monitor hours of operation for the emergency generator, site pigging events and malfunctions of equipment, as well as planned and unplanned maintenance of permitted equipment comprising the facility.

Recordkeeping

The company will maintain records of the operating schedule and the quantity and quality of fuel consumed in each unit on a daily basis for two (2) years.

In addition to those mentioned above, the company will keep records of the items monitored, such as hours of operation, planned maintenance activities, unplanned maintenance activities, and complaints regarding the facility for five (5) years, two (2) years on site, certified by a company official at such time that the DAQ may request said records.

Records of maintenance conducted shall be kept in accordance with Subpart JJJJ (40CFR60.4243(a)(1)).

Reporting

The company will report any equipment malfunctions or opacity and emission limit deviations.

Testing

At the Director's request the company of any fuel burning unit may be required to conduct testing to determine compliance with Section 4 of 45CSR2 or perform visible emission observations in accordance with 40 CFR 60, Appendix A, Method 9.

ATTACHMENT P

PUBLIC NOTICE

Rule 13 Permit Application

Saunders Creek RS Station
Milton, West Virginia

Columbia Gas Transmission LLC
1700 MacCorkle Avenue, SE
Charleston WV

May 2017

AIR QUALITY PERMIT NOTICE
Notice of Application

Notice is given that Columbia Gas Transmission, LLC has applied to the West Virginia Department of Environmental Protection, Division of Air Quality, for a Construction Permit, for a natural gas transmission station located off Dry Creek Rd. near Milton, in Cabell County, West Virginia. The latitude and longitude coordinates are 38.40653 and -82.14471.

The applicant estimates the potential to discharge of the following Regulated Air Pollutants will be:

Pollutant	Tons/yr
PM/PM_{10}/$PM_{2.5}$	2.10
SO_2	0.20
NO_X	34.36
CO	23.50
VOCs	1.54
Formaldehyde	0.02
Total HAPs	0.52

Startup of operation is planned to begin on January 1, 2018. Written comments will be received by the West Virginia Department of Environmental Protection, Division of Air Quality, 601 57th Street, SE, Charleston, WV 25304, for at least 30 calendar days from the date of publication of this notice.

Any questions regarding this permit application should be directed to the DAQ at (304) 926-0499, extension 1250, during normal business hours.

Dated this the XX day of May, 2017.

By: Columbia Gas Transmission, LLC
Craig Roberts
Manager of Operations
1664 Walker Branch Rd.
Huntington, WV 25704

ATTACHMENT Q

BUSINESS CONFIDENTIAL CLAIMS (SEE NOTE)

Note: No information contained within this application is claimed confidential.

Rule 13 Permit Application

Saunders Creek RS Station
Milton, West Virginia

Columbia Gas Transmission LLC
1700 MacCorkle Avenue, SE
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ATTACHMENT R

AUTHORITY FORMS (SEE NOTE)

Note: No delegation of authority.

Rule 13 Permit Application

Saunders Creek RS Station
Milton, West Virginia

Columbia Gas Transmission LLC
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Charleston WV

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ATTACHMENT S

TITLE V PERMIT REVISION INFORMATION (SEE NOTE)

Note: Not a Title V Permit Revision.

Rule 13 Permit Application

Saunders Creek RS Station
Milton, West Virginia

Columbia Gas Transmission LLC
1700 MacCorkle Avenue, SE
Charleston WV

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PERMIT APPLICATION FEE

Rule 13 Permit Application

Saunders Creek RS Station
Milton, West Virginia

Columbia Gas Transmission LLC
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