

# Fact Sheet



## For Draft/Proposed Significant Modification Permitting Action Under 45CSR30 and Title V of the Clean Air Act

This Fact Sheet serves to address the changes specific to this Significant Modification, and shall be considered a supplement to the original Fact Sheet corresponding with the issuance of the Title V operating permit issued on October 31, 2012.

Permit Number: **R30-03100002-2012**  
Application Received: **January 25, 2016**  
Permittee: **Columbia Gas Transmission, LLC**  
Facility Name: **Lost River Compressor Station**  
Mailing Address: **1700 MacCorkle Ave., S.E., Charleston WV 25314**

Permit Action Number: *SM02*      Revised: *Draft/Proposed*

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Physical Location: Mathias, Hardy County, West Virginia  
UTM Coordinates: 685.5 km Easting • 4,305.1 km Northing • Zone 17  
Directions: Traveling on I-81 (in VA), take Exit 257 to US Route 11. Take left on US 11 to State Route 259. Travel North on SR 259 to Mathias, WV. Turn right on Upper Cove and travel 1/4 mile toward Basore. Entrance to facility is on the left.

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### Facility Description

Columbia Gas Transmission operates a natural gas compressor station, known as the Lost River Station, located near Mathias in Hardy County, West Virginia. The compressor station currently employs five (5) natural gas-fired engines to power the compressor units, including three (3) 2,700 horsepower engines, one (1) 4,640 horsepower engine and one (1) 4,735 horsepower engine; one (1) natural gas-fired reciprocating engine/emergency generator; four (4) natural gas fired turbines; one (1) waste water evaporator; one (1) boiler; three (3) fuel gas heater; and numerous storage tanks.

The facility's SIC Code is: 4922 (Natural Gas Transmission).

The purpose of this modification is for the addition of two (2) new Solar Mars 100 turbines, one (1) process heater, 48 catalytic heaters and the removal of one (1) existing Clark HRA-8T Compressor engine.

Additionally, the synthetic minor limit for greenhouse gas (GHG) emissions on the two (2) existing Solar Taurus 70 turbines for GHG will be removed.

### Emissions Summary

The following changes in this facility's Potential to Emit (PTE) are associated with this modification:

Pollutant	Change in PTE (TPY)
CO	68.83
NO <sub>x</sub>	-37.92
PM	5.22
SO <sub>2</sub>	0.77
VOCs	11.97
HAPs	-2.60

### Title V Program Applicability Basis

With the proposed changes associated with this modification, this facility maintains the potential to emit 445.8 tons per year of CO, 905.35 tons per year of NO<sub>x</sub>, 122.07 tons per year of VOCs, over 10 TPY of formaldehyde and 39.89 tons per year of aggregate hazardous air pollutants (HAPs). Due to this facility's potential to emit over 100 tons per year of criteria pollutants, over 10 TPY of a single HAP and over 25 tons per year of aggregate HAPs, Columbia Gas Transmission, LLC is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

### Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

The modification to this facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR2	Opacity Requirements for boilers
	45CSR13	NSR Permitting
	45CSR16	Standards of Performance for New Stationary Sources Pursuant to 40CFR60
	45CSR30	Operating permit requirement.
	45CSR34	Emission Standards for HAPs
	40 C.F.R. Part 60, Subpart KKKK	Standards of Performance for Stationary Combustion Turbines
	40 C.F.R. Part 63 Subpart DDDDD	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters
	40 C.F.R. Part 63 Subpart YYYYY	National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines

Each State and Federally-enforceable condition of the Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

**Active Permits/Consent Orders**

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit ( <i>if any</i> )
R14-0013E	5/11/16	

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table," which may be downloaded from DAQ's website.

**Determinations and Justifications**

**Equipment Changes**

The following equipment has been added or removed with this modification, and the emission units table was updated accordingly:

- Addition of two (2) Solar Mars 100 15,067 hp natural gas-fired turbines (003-03 and 003-04)
- Addition of one (1) 0.50 mmBtu/hr natural gas-fired Fuel Heater (001-07)
- Addition of 26 natural gas-fired Catalytic Heaters (18 x 0.072 mmBtu/hr, 8 x 0.005 mmBtu/hr) (001-08)
- Addition of 22 previously unpermitted 0.03 mmBtu/hr natural gas-fired Catalytic Heaters (001-09)
- Removal of four (4) existing Clark HRA-8T 1,320 hp compressor engines (E01, E02, E04, and E05)

For the newly installed equipment, all applicable sections of the Title V permit and applicable conditions from R14-0013E are summarized in the emission units table. Additionally, due to minor restructuring of R14-0013E, the emission units table was also updated to reflect current R14-0013E condition numbers for previously installed equipment.

**Removal of Synthetic Minor Limits**

In addition, Columbia Gas removed synthetic minor limits on the two (2) existing Solar Taurus 70 Turbines (T01) and (T02) which were contained in R14-0013D as permit condition 4.1.7. On July 24, 2014, EPA rescinded the Tailoring Rule, therefore, PSD cannot be triggered solely based on GHG emissions. Because of this, the limit was no longer needed. Columbia Gas also requested removal of R14-0013D permit condition 4.2.5, which required visible emission monitoring of the catalytic heaters. These changes were made in R14-0013E, and this Title V permit was updated accordingly.

**40 C.F.R. 63, Subpart YYYY: National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Stationary Combustion Turbines**

While the new and existing turbines are subject to this subpart, there is a stay of standards for gas-fired turbines. Therefore requirements from this subpart were not included for the new turbines, and the requirements were removed for the existing turbines.

### **Non-Applicability Determinations**

The following requirements have been determined not to be applicable to the subject facility due to the following:

45CSR2—To Prevent and Control Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers: the catalytic heaters are direct fired and do not meet the definition of indirect heat exchangers in 45CSR§2-2.14.

45CSR10—To Prevent and Control Air Pollution from the Emission of Sulfur Oxides: 45CSR10 has requirements limiting SO<sub>2</sub> emissions from “fuel burning units,” limiting in-stack SO<sub>2</sub> concentrations of “manufacturing processes,” and limiting H<sub>2</sub>S concentrations in process gas streams. The only potential applicability of 45CSR10 to Lost River is the limitations on fuel burning units. The Fuel Heater (001-007) has been determined to meet the definition of a “fuel burning unit” under 45CSR10. However, pursuant to the exemption given under 45CSR§10-10.1, as the MDHI of the unit is less than 10 mmBtu/hr, it is not subject to the limitations on fuel burning units under 45CSR10.

### **Request for Variances or Alternatives**

None.

### **Insignificant Activities**

Insignificant emission unit(s) and activities are identified in the Title V application.

### **Comment Period**

Beginning Date: Wednesday, August 3, 2016

Ending Date: Friday, September 2, 2016

### **Point of Contact**

All written comments should be addressed to the following individual and office:

Rex Compston, P.E.  
West Virginia Department of Environmental Protection  
Division of Air Quality  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304  
Phone: 304/926-0499 ext. 1209 • Fax: 304/926-0478  
[Rex.E.Compston@wv.gov](mailto:Rex.E.Compston@wv.gov)

### **Procedure for Requesting Public Hearing**

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

### **Response to Comments (Statement of Basis)**

Not applicable.