

Commonwealth of Kentucky
Division for Air Quality
PERMIT APPLICATION SUMMARY FORM
Completed by: Brian Harley

GENERAL INFORMATION:

Name: Grayson Compressor Station
Address: 1237 Beckwith Branch Road, Grayson, KY 41143
Date application received: 5/12/2015
SIC Code/SIC description: 4922, Natural Gas Transmission
Source ID: 21-043-00059
Agency Interest: 126015
Activity: APE20150001
Permit: V-15-041

APPLICATION TYPE/PERMIT ACTIVITY:

Initial issuance General permit
 Permit modification Conditional major
 __Administrative Title V
 __Minor Synthetic minor
 __Significant Operating
 Permit renewal Construction/operating

COMPLIANCE SUMMARY:

Source is out of compliance Compliance schedule included
 Compliance certification signed

SOURCE APPLICABLE REQUIREMENTS LIST:

NSR NSPS SIP
 __ Non-Attainment NESHAPS Other
 __ PSD CAM
 __ Netted out of PSD/NSR
 __ Not major modification per 401 KAR 51:001, 1(114)(b)

MISCELLANEOUS:

Acid rain source
 Source subject to 112(r)
 Source applied for federally enforceable emissions cap
 Source provided terms for alternative operating scenarios
 Source subject to a MACT standard
 Source requested case-by-case 112(g) or (j) determination
 Application proposes new control technology
 Certified by responsible official
 Diagrams or drawings included
 Confidential business information (CBI) submitted in application
 Pollution Prevention Measures
 Area is non-attainment (list pollutants):

EMISSIONS SUMMARY:

Pollutant	Actual (tpy)	Potential (tpy)
PM/ PM ₁₀ /PM _{2.5}	NA	11.25
SO ₂	NA	1.19
NO _x	NA	110.49
CO	NA	190.90
VOC	NA	32.34
Hazardous Air Pollutants (HAPs)		
Acetaldehyde	NA	0.082
Acrolein	NA	0.020
Benzene	NA	0.021
Ethyl Benzene	NA	0.054
Formaldehyde	NA	1.285
n-Hexane	NA	0.033
Methanol	NA	0.004
Naphthalene	NA	0.002
Toluene	NA	0.219
Xylene	NA	0.108
Combined HAPs	NA	1.828
Green House Gases		
Nitrous Oxide	NA	0.51
Carbon dioxide (CO ₂)	NA	197,654
Methane	NA	500.7
CO ₂ Equivalent	NA	210,323

SOURCE DESCRIPTION:

On May 12, 2015, the Division for Air Quality (Division) received an application from Columbia Gulf Transmission for the construction/operation of the Grayson Compressor Station in Carter County Kentucky for transmission of natural gas. The station, which is scheduled to commence construction in 2017, will receive natural gas via pipeline from an upstream compressor station, compress the gas using three (3) natural gas-fired turbines, and transmit the gas via pipeline to a downstream station. The emissions from the station will be emitted from two (2) Solar Mars 100 turbines rated at 15,582 hp at 32°F, one (1) Solar Titan 130 turbine rated at 19,842 hp at 32°F, and each having SoLoNO_x controls; and one (1) Waukesha four stroke lean burn (4SLB)

emergency generator engine rated at 880 hp. There will also be several insignificant activities including one (1) 1.1 mmBtu/hr ETI indirect-fired heat exchanger, 40 catalytic space heaters rated at 0.072 mmBtu/hr each, one (1) 1,000 gallon waste liquid tank, one (1) 2,000 gallon condensate liquid tank, and fugitive emissions from several piping components.

Potential emissions of CO and NO_x from the new facility will exceed 100 tons per year, while all hazardous air pollutant (HAP) will all be well below 10 tons per year. Thus, the Grayson Compressor Station will be classified as an area source of HAP, and a major source under the Title V permit program pursuant to 401 KAR 52:020.

EMISSIONS AND OPERATING CAPS DESCRIPTIONS:

None

OPERATIONAL FLEXIBILITY:

None