



west virginia department of environmental protection

Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone 304/926-0475

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

May 6, 2015

CERTIFIED MAIL
91 7199 9991 7035 6613 3495

Mr. Barry Schatz
Senior Environmental and Regulatory Manager
Antero Resources Corporation
1615 Wynkoop Street
Denver, CO 80202

RE: Approved Registration G70-A126A
Antero Resources Corporation
Dale Wellpad
Permit Application G70-A126A
Plant ID No. 095-00053

Dear Mr. Schatz:

The Director has determined that the submitted Class I Administrative Update Application and proposed Administrative Updates and operation of an oil and natural gas production facility demonstrates eligibility and compliance with the requirements, provisions, standards and conditions of General Permit G70-A and hereby grants General Permit registration authorizing the proposed activity.

General Permit G70-A can be accessed electronically at www.dep.wv.gov/daq/permitting/Pages/airgeneralpermit.aspx. Hard copies are available upon request by contacting Danielle Wentz at (304)926-0499 ext. 1193.

Please be aware of the actions required in Monitoring Requirements, Testing Requirements, Recordkeeping Requirements, and the Reporting Requirements.

Should you have any questions, please contact the undersigned engineer at (304)926-0499 ext. 1258 or Caraline.F.Griffith@wv.gov.

Sincerely,

Caraline Griffith
Engineer Trainee

Enclosures: Registration G70-A126A

*West Virginia Department of Environmental Protection
Division of Air Quality*

*Earl Ray Tomblin
Governor*

*Randy C. Huffman
Cabinet Secretary*

**Class II General Permit
G70-A Registration for Class I
Administrative Update**



for the
Prevention and Control of Air Pollution in regard to the
Construction, Modification, Relocation, Administrative Update and
Operation of Oil and Natural Gas Production Facilities
Located at the Well Site

*The permittee identified at the facility listed below is authorized to
construct the stationary sources of air pollutants identified herein in accordance
with all terms and conditions of General Permit G70-A.*

G70-A126A

Issued to:

Antero Resources Corporation

Dale Wellpad

095-00053

A handwritten signature in blue ink, appearing to read "William F. Durham", written over a horizontal line.

William F. Durham

Director

Issued: May 6, 2015

This permitting action supersedes and replaces G70-A126.

Facility Location: near Centerville, Tyler County, West Virginia
Mailing Address: 1615 Wynkoop Street
Denver, CO 80202
Facility Description: Natural Gas/Condensate Production Facility
NAICS Code: 211111
SIC Code: 1311
UTM Coordinates: 511.847 km Easting • 4,364.732 km Northing • Zone 17
Longitude Coordinate: -80.86234
Latitude Coordinate: 39.43205
Directions to Facility: From Centerville travel west on Wheelers Run for approximately 1.3 miles the facility will be on the left.
Registration Type: Administrative Update
Description of Change: Change in manufacturer of the combustor control device from Abutec to Cimarron.

Subject to 40CFR60, Subpart OOOO? Yes, gas well affected facility.

Subject to 40CFR60, Subpart JJJJ? Yes, engine ENG001 is subject to this regulation and ENG001 is certified.

Subject to 40CFR63, Subpart ZZZZ? Yes, engine ENG001 is subject to this regulation, but all engines will demonstrate compliance through subpart JJJJ requirements.

Subject to 40CFR63, Subpart HH? No.

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit or registration issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§ 22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §22-5-14.

The source is not subject to 45CSR30.

1.0 Emission Units Table

Emission Unit ID	Emission Point ID	Emission Unit Description (Mfg., Model, Serial No., Engine type 2SLB, 4SLB, 4SRB, etc.)	Control Device ID	Year Installed / Modified	Max. Design Capacity	Design Capacity Unit of Measure	G70-A Applicable Sections
EU-H001 Through EU-H009	EP-H001 Through EP-H009	GPU Heaters	N/A	2014	1.5 (each)	MMBtu/hr	7
ENG001	EP-ENG001	Compressor Engine Kubota DG972-E2	None	2014	24	bhp	10, 13, 15
TANKCOND 001-010	EC001	Ten (10) Condensate Tanks	EC001	2014	400 (each)	BBL	6
TANKPW 001-002	EC001	Two (2) Produced Water Tanks	EC001	2014	400 (each)	BBL	6
EU-L001 and EU-L002	EP-L001 And EP-L002	Condensate and Produced Water Truck Loading	None	2014	6,898,500 and 82,782,000 respectively	gallons/year	11, 14
Control Devices							
Control Device ID	Control Efficiency %	Control Device Description (Mfg, Model)	Year Installed / Modified	Max. Design Capacity	Design Capacity Unit of Measure	G-70A Applicable Sections	
EC001	98%	Abutec-200 Combustor Controlling TANKCOND and TANKPW	2014	6.6	MMBtu/hr	12, 14	
Emission Reduction Systems						Yes or No	G-70A Applicable Sections
Was a vapor recovery system (VRU) used to determine emission limits?						No	-
Was a low pressure tower(s) used to determine emission limits?						No	-

2.0 Oil and Natural Gas Wells Table

API number
047-095-02171-00

3.0 Emission Limitations

Emission Unit ID	Emission Point ID	Emission Unit Description	Regulated Pollutant	Maximum Potential Emissions	
				Hourly (lb/hr)	Annual (tpy)
ENG001	EP-ENG001	Kubota DG972-E2 Compressor Engine	Nitrogen Oxides	0.32	1.39
			Carbon Monoxide	5.65	24.73
			Volatile Organic Compounds	0.01	0.03
TANKCOND 001-010 and TANKPW 001-002	EC001	Abutec-200 Combustor (Controlling Condensate Tanks and Produced Water Tanks)	Nitrogen Oxides	0.47	2.04
			Carbon Dioxide	0.39	1.71
			Volatile Organic Compounds	5.39	23.63
			n-Hexane	0.14	0.63
EU-H001 Through EU-H009	EP-H001 Through EP-H009	GPU Heaters	Nitrogen Oxides	1.09	4.75
			Carbon Monoxide	0.91	3.99
			Volatile Organic Compounds	0.06	0.26
			PM ₁₀	0.09	0.36

4.0 Throughput Limitations

Throughput limits are on a 12-month rolling total basis.

Emission Unit ID	Emission Point ID	Emission Unit Description	Annual Throughput Limit
EU-L001	EP-L001	Condensate Truck Loading	6,898,500 gallons/year
EU-L002	EP-L002	Produced Water Truck Loading	82,782,000 gallons/year

5.0 Reciprocating Internal Combustion Engines (R.I.C.E.) Information

Emission Unit ID	Engine Manufacturing Date	Subject to 40CFR60, Subpart JJJJ?	Subject to 40CFR63, Subpart ZZZZ?	Subject to Sections 10.1.4 / 10.2.1 (Catalytic Reduction Device)
ENG001	2013	Yes	Yes	No