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

September 2, 2015

CERTIFIED MAIL
91 7199 9991 7035 6611 2933

Barry Schatz
1615 Wynkoop Street
Denver, CO 80202

RE: Approved Registration G70-A069B
Antero Resources Corporation
Pennington South Wellpad
Facility ID No. 017-00113

Dear Mr. Schatz:

The Director has determined that the submitted Registration Application and proposed modification 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 Taylor 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. 1222 or Roy.F.Kees@wv.gov.

Sincerely,

Roy F. Kees, P.E.
Engineer - NSR Permitting

Enclosures: Registration G70-A069B

West Virginia Department of Environmental Protection
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Class II General Permit
G70-A Registration to Modify

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-A069B

Issued to:
Antero Resources Corporation
Pennington South Well Pad
017-00113

William F. Durham
Director

Issued: September 2, 2015

This General Permit Registration will Supersede and Replace G70-A069A.

Facility Location:	West Union, Doddridge County, West Virginia
Mailing Address:	1625 17th Street, Denver, CO 80202
Facility Description:	Natural Gas Production
NAICS Code:	211111
SIC Code:	1311
UTM Coordinates:	522.377 km Easting • 4,339.281 km Northing • Zone 17
Longitude Coordinates:	-80.740833
Lattitude Coordinatees:	39.202500
Directions to Facility:	From the intersection of Porto Rico Road and Maxwell Ridge Road, go west on Maxwell Ridge Road for 1.6 miles to find the site on the right.
Registration Type:	Construction
Description of Change:	Application to modify a natural gas well pad by reducing condensate production, replacing GPUs with smaller units, removing enclosed combustor and flash gas compressor.

Subject to 40CFR60, Subpart OOOO? Yes

Subject to 40CFR60, Subpart JJJJ? No

Subject to 40CFR63, Subpart ZZZZ? No

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.

Permit Section Applicability for the Registrant

All registered facilities under General Permit G70-A are subject to Sections 1.0, 2.0, 3.0, and 4.0 of General Permit G70-A.

The following additional sections of General Permit G70-A apply to the registrant:

Section 5	Natural Gas Well Affected Facility	☒
Section 6	Storage Vessels*	☒
Section 7	Gas Production Units, In-Line Heaters, Heater Treaters, and Glycol Dehydration Reboilers	☒
Section 8	Pneumatic Controllers Affected Facility (NSPS, Subpart OOOO)	☐
Section 9	*Reserved*	☐
Section 10	Natural Gas-Fired Compressor Engine (s) (RICE)**	☐
Section 11	Tank Truck Loading Facility***	☒
Section 12	Standards of Performance for Storage Vessel Affected Facilities (NSPS, Subpart OOOO)	☐
Section 13	Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (NSPS, Subpart JJJJ)	☐
Section 14	Control Devices not subject to NSPS, Subpart OOOO	☐
Section 15	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (40CFR63, Subpart ZZZZ)	☐
Section 16	Glycol Dehydration Units	☐
Section 17	Dehydration Units With Exemption from NESHAP Standard, Subpart HH § 63.764(d) (40CFR63, Subpart HH)	☐
Section 18	Dehydration Units Subject to NESHAP Standard, Subpart HH and Not Located Within an UA/UC (40CFR63, Subpart HH)	☐
Section 19	Dehydration Units Subject to NESHAP Standard, Subpart HH and Located Within an UA/UC (40CFR63, Subpart HH)	☐

* The registrant may also be subject to the applicable control device requirements of Section 12 if the registrant is subject to the NSPS, Subpart OOOO control requirements or may be subject to the control device requirements of Section 14.

** The registrant may also be subject to the applicable RICE requirements of Section 13 and/or Section 15.

*** The registrant may also be subject to the applicable control device requirements of Section 14.

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
H001	EP-H001	Heater Treater	--	2015	1.0	mmBtu/hr	7
H002	EP-H002	Heater Treater	--	2015	1.0	mmBtu/hr	7
H003	EP-H003	Heater Treater	--	2015	1.0	mmBtu/hr	7
H004	EP-H004	Heater Treater	--	2015	1.0	mmBtu/hr	7
H005	EP-H005	Heater Treater	--	2015	1.0	mmBtu/hr	7
H006	EP-H006	Heater Treater	--	2015	1.0	mmBtu/hr	7
TANKCOND001-006	TANKCOND001-006	Cond. Tank	--	2014	400	Bbl	6
TANKPW001-002	TANKPW001-002	P.W. Tank	--	2014	400	Bbl	6
L001	EP-L001	Cond. Loading	N/A	2015	91,980	Gal/year	11

Control Devices (If applicable)

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
N/A	N/A	N/A	N/A	N/A	N/A	N/A

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	API number	API number
047-017-06404-00		
047-017-06405-00		
047-017-06403-00		

3.0 Emission Limitations

Emission Unit ID	Emission Point ID	Emission Unit Description	Regulated Pollutant	Maximum Potential Emissions	
				Hourly (lb/hr)	Annual (tpy)
H001-H006	EP-H001-H006	(6) 1.0mmBtu/hr GPU Heaters	Nitrogen Oxides	0.50	2.17
			Carbon Monoxide	0.42	1.83
TANKCOND001-006	TANKCOND001-006	(6) 400 BBL Condensate Tanks	Volatile Organic Compounds	3.13	13.70
			Total HAPs	0.04	0.17
L001	EP-L001	Condensate Truck Loading	Volatile Organic Compounds	30.43	0.14
			Total HAPs	0.09	<0.01

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
L001	EP-L001	Condensate Truck Loading	91,980 gal/yr

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)
N/A	N/A	N/A	N/A	N/A