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west virginia department of environmental protection

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

Earl Ray Tomblin, Governor  
Randy C. Huffman, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

September 15, 2015

CERTIFIED MAIL  
91 7199 9991 7035 6611 2957

Barry Schatz  
1615 Wynkoop Street  
Denver, CO 80202

RE: Approved Registration G70-A061A  
Antero Resources Corporation  
Eddy Wellpad  
Facility ID No. 085-00030

Dear Mr. Schatz:

The Director has determined that the submitted Registration Application and proposed construction 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](http://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. 1222 or [Roy.F.Kees@wv.gov](mailto:Roy.F.Kees@wv.gov).

Sincerely,

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

Enclosures: Registration G70-A061A

*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 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-A061A**

Issued to:

**Antero Resources Corporation  
Eddy Well Pad  
085-00030**

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

*William F. Durham  
Director*

*Issued: September 15, 2015*

*This General Permit Registration will Supersede and Replace G70-A061.*

Facility Location: Pennsboro, Ritchie County, West Virginia  
Mailing Address: 1615 Wynkoop, Denver, CO 80202  
Facility Description: Natural Gas Production  
NAICS Code: 211111  
SIC Code: 1311  
UTM Coordinates: 506.884 km Easting • 4,353.839 km Northing • Zone 17  
Longitude Coordinates: -80.920125  
Latitude Coordinates: 39.333944  
Directions to Facility: From Clarksburg, head west on US-50 for about 42 miles. Turn right onto Pullman Drive / WV-74 for 0.4 miles. Turn left onto E. Myles Avenue / Old US 50 E for 0.6 miles. Turn sharp left onto E Penn Avenue for 0.1 miles. Take second right onto 1st Street for 446 feet. Turn slight right onto WV-74 N / Mountain Drive for about 5 miles. The Eddy Pad will be on your right.  
Registration Type: Construction  
Description of Change: Increase in condensate production, addition of eleven line heaters and three enclosed combustors.

Subject to 40CFR60, Subpart OOOO? Yes

Subject to 40CFR60, Subpart JJJJ? Yes, Certified

Subject to 40CFR63, Subpart ZZZZ? Subpart JJJJ Req's Only

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.*

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*The source is not subject to 45CSR30.*

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

\* 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	--	2013	1.5	mmBtu/hr	7
H002	EP-H002	Heater Treater	--	2013	1.5	mmBtu/hr	7
H003	EP-H003	Heater Treater	--	2014	1.5	mmBtu/hr	7
H004	EP-H004	Heater Treater	--	2014	1.5	mmBtu/hr	7
H005	EP-H005	Heater Treater	--	2014	1.5	mmBtu/hr	7
H006	EP-H006	Heater Treater	--	2014	1.5	mmBtu/hr	7
H007	EP-H007	Heater Treater	--	2014	1.5	mmBtu/hr	7
H008	EP-H008	Heater Treater	--	2014	1.5	mmBtu/hr	7
H009	EP-H009	Heater Treater	--	2014	1.5	mmBtu/hr	7
H010	EP-H010	Heater Treater	--	2014	1.5	mmBtu/hr	7
H011	EP-H011	Heater Treater	--	2016	1.5	mmBtu/hr	7
LH001	EP-LH001	Line Heater	--	2015	2.0	mmBtu/hr	7
LH002	EP-LH002	Line Heater	--	2015	2.0	mmBtu/hr	7
LH003	EP-LH003	Line Heater	--	2015	2.0	mmBtu/hr	7
LH004	EP-LH004	Line Heater	--	2015	2.0	mmBtu/hr	7
LH005	EP-LH005	Line Heater	--	2015	2.0	mmBtu/hr	7
LH006	EP-LH006	Line Heater	--	2015	2.0	mmBtu/hr	7
LH007	EP-LH007	Line Heater	--	2015	2.0	mmBtu/hr	7
LH008	EP-LH008	Line Heater	--	2015	2.0	mmBtu/hr	7
LH009	EP-LH009	Line Heater	--	2015	2.0	mmBtu/hr	7
LH010	EP-LH010	Line Heater	--	2015	2.0	mmBtu/hr	7
LH011	EP-LH011	Line Heater	--	2015	2.0	mmBtu/hr	7
TANKCOND001	EC-001	Cond. Tank	EC-001	2013	400	Bbl	6 & 14
TANKCOND002	EC-001	Cond. Tank	EC-001	2013	400	Bbl	6 & 14
TANKCOND003	EC-001	Cond. Tank	EC-001	2013	400	Bbl	6 & 14
TANKCOND004	EC-001	Cond. Tank	EC-001	2013	400	Bbl	6 & 14
TANKCOND005	EC-001	Cond. Tank	EC-001	2013	400	Bbl	6 & 14
TANKCOND006	EC-001	Cond. Tank	EC-001	2013	400	Bbl	6 & 14
TANKCOND007	EC-001	Cond. Tank	EC-001	2013	400	Bbl	6 & 14
TANKCOND008	EC-001	Cond. Tank	EC-001	2013	400	Bbl	6 & 14
TANKCOND009	EC-001	Cond. Tank	EC-001	2013	400	Bbl	6 & 14
TANKCOND010	EC-001	Cond. Tank	EC-001	2014	400	Bbl	6 & 14
TANKCOND011	EC-001	Cond. Tank	EC-001	2016	400	Bbl	6 & 14
TANKPW001	EC-001	P. Water Tank	EC-001	2013	400	Bbl	6 & 14
TANKPW002	EC-001	P. Water Tank	EC-001	2013	400	Bbl	6 & 14

E001	E001	Kubota DG972-E2 Engine	--	2013	23.6	Hp	10, 13, 15
L001	EP-L001	Cond. Loading	N/A	2013	33,726,000	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	
EC001	98	Cimmaron Model 48" HV ECD Flare	2013	90	Scfm	14	
EC002	98	Cimmaron Model 48" HV ECD Flare	2015	90	Scfm	14	
EC003	98	Cimmaron Model 48" HV ECD Flare	2015	90	Scfm	14	
EC004	98	Cimmaron Model 48" HV ECD Flare	2015	90	Scfm	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	API number	API number
047-085-09963	047-085-09962	047-085-10106
047-085-10015	047-085-1001500RB	
047-085-10036	047-085-10057	
047-085-10041	047-085-10105	

### 3.0 Emission Limitations

Emission Unit ID	Emission Point ID	Emission Unit Description	Regulated Pollutant	Maximum Potential Emissions	
				Hourly (lb/hr)	Annual (tpy)
H001-H011	EP-H001-H011	(11) 1.5 mmBtu/hr GPU Heaters	Nitrogen Oxides	1.32	5.80
			Carbon Monoxide	1.11	4.87
LH001-LH011	EP-LH001-LH011	(11) 2.0 mmBtu/hr Line Heaters	Nitrogen Oxides	1.76	7.73
			Carbon Monoxide	1.48	6.49
TANKC OND001 1-011	EC001-004	(11) 400 BBL Condensate Tanks & Enclosed Combustors	Volatile Organic Compounds	10.12	44.31
			Total HAPs	0.25	1.11
			Nitrogen Oxides	0.71	3.11
			Carbon Monoxide	0.60	2.62
L001	EP-L001	Condensate Truck Loading	Volatile Organic Compounds	5.32	8.90
			Total HAPs	0.01	0.02
			Nitrogen Oxides	0.32	1.38
E001	E001	Kubota DG972-E2 Compressor Engine 23.6 hp	Carbon Monoxide	5.64	24.72
			Volatile Organic Compounds	0.01	0.03
			Formaldehyde	--	0.02

#### 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	33,726,000 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)
E001	2013	Yes	Yes	No