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-A075A

Issued to:
Antero Resources Corporation
Walnut West Wellpad
085-00038

William F. Durham
Director

Issued: August 18, 2015

This general permit registration will supersede and replace G70-A075

Facility Location:	Pennsboro, Ritchie County, West Virginia
Mailing Address:	1615 Wynkoop Street, Denver, CO 80202
Facility Description:	Natural Gas Production
NAICS Code:	211111- Crude Petroleum and Natural Gas Extraction
SIC Code:	1311
UTM Coordinates:	500.159 km Easting • 4,351.524 km Northing • Zone 17
Lat./Long. Coordinates:	39.31311degrees N (Latitude) • - 80.998155 degrees W (Longitude)
Directions to Facility:	0.1 miles North of intersection of Beech Grove Road and Right Fork Bonds Creek Road. The destination will be on the left.
Registration Type:	Modification
Description of Change:	Increase in condensate throughput, addition of five wells, five GPUs, six condensate tanks, and three enclosed combustors.

Subject to 40CFR60, Subpart OOOO? Yes

Subject to 40CFR60, Subpart JJJJ? Yes

Subject to 40CFR63, Subpart ZZZZ? Yes, 40CFR60 Subpart JJJJ Requirements for new engine.

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	H001	Heater Treater	None	2014	1.5	mmBtu/hr	7
H002	H002	Heater Treater	None	2014	1.5	mmBtu/hr	7
H003	H003	Heater Treater	None	2014	1.5	mmBtu/hr	7
H004	H004	Heater Treater	None	2015	1.5	mmBtu/hr	7
H005	H005	Heater Treater	None	2015	1.5	mmBtu/hr	7
H006	H006	Heater Treater	None	2015	1.5	mmBtu/hr	7
H007	H007	Heater Treater	None	2015	1.5	mmBtu/hr	7
H008	H008	Heater Treater	None	2015	1.5	mmBtu/hr	7
TANKCOND001	EC001-004	Condensate Storage Tank	EC001-004	2014	400	bbl	6 & 14
TANKCOND002	EC001-004	Condensate Storage Tank	EC001-004	2014	400	bbl	6 & 14
TANKCOND003	EC001-004	Condensate Storage Tank	EC001-004	2014	400	bbl	6 & 14
TANKCOND004	EC001-004	Condensate Storage Tank	EC001-004	2014	400	bbl	6 & 14
TANKCOND005	EC001-004	Condensate Storage Tank	EC001-004	2015	400	bbl	6 & 14
TANKCOND006	EC001-004	Condensate Storage Tank	EC001-004	2015	400	bbl	6 & 14
TANKCOND007	EC001-004	Condensate Storage Tank	EC001-004	2015	400	bbl	6 & 14
TANKCOND008	EC001-004	Condensate Storage Tank	EC001-004	2015	400	bbl	6 & 14
TANKCOND009	EC001-004	Condensate Storage Tank	EC001-004	2015	400	bbl	6 & 14
TANKCOND010	EC001-004	Condensate Storage Tank	EC001-004	2015	400	bbl	6 & 14
TANKPW001	EC001-004	Produced Water Storage Tank	EC001-004	2014	400	bbl	6 & 14
TANKPW002	EC001-004	Produced Water Storage Tank	EC001-004	2014	400	bbl	6 & 14
ENG001	ENG001	Compressor Engine (Kubota DG972-E2; 4SRB; 24 HP @3600 rpm)	None	2014	24	HP	10, 13 & 15
L001	L001	Condensate Loading	N/A	2015	24,528,000	gal/year	11
L002	L002	Produced Water Loading	N/A	2015	49,056,000	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	Flare (Cimmaron 48", Model No. 700-TI-603-D-31C)	2014	90	Scf/min	14
EC002	98	Flare (Cimmaron 48", Model No. 700-TI-603-D-31C)	2015	90	Scf/min	14
EC003	98	Flare (Cimmaron 48", Model No. 700-TI-603-D-31C)	2015	90	Scf/min	14
EC004	98	Flare (Cimmaron 48", Model No. 700-TI-603-D-31C)	2015	90	Scf/min	14
Emission Reduction Systems					Yes or No	G-70A Applicable Sections
Was a vapor recovery system (VRU) used to determine emission limits?					No	NA
Was a low pressure tower(s) used to determine emission limits?					No	NA

2.0 Oil and Natural Gas Wells Table

API number	API number	API number
47-085-10042-00	47-085-10043-00	(6) Additional Wells Not Permitted

3.0 Emission Limitations

Emission Unit ID	Emission Point ID	Emission Unit Description	Regulated Pollutant	Maximum Potential Emissions	
				Hourly (lb/hr)	Annual (tpy)
H001-H008 (Uncontrolled)	H001-H008	(8) 1.5 mmBtu/hr Heater Treaters	Nitrogen Oxides	0.96	4.22
			Carbon Monoxide	0.81	3.54
			Volatile Organic Compounds	0.05	0.23
			PM(Total)	0.07	0.32
FL001 (TANKCOND001-010, TANKPW001-002) (Controlled)	EC001-004	(10) 400 bbl Condensate Tanks, (2) 400 bbl Produced WaterTanks, & (2) Combustors	Nitrogen Oxides	0.59	2.57
			Carbon Monoxide	0.49	2.15
			Volatile Organic Compounds	9.81	42.95
			Total HAPs	0.38	1.66
ENG001 (Uncontrolled)	ENG001	24 HP Compressor Engine	Nitrogen Oxides	0.32	1.39
			Carbon Monoxide	5.65	24.73
			Volatile Organic Compounds	0.01	0.04
L001, L002 (Uncontrolled)	EP-L001, EP-L002	(2) Condensate and Produced Water Truck Loading	Volatile Organic Compounds	10.14	12.34
			Total HAPs	0.03	0.04

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	L001	Condensate Truck Loading	24,528,000 gal/yr

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

Emission Unit ID	Engine Manufacture 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 (40CFR60 Subpart JJJJ Requirements)	No