

*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 Construct**



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-A094**

Issued to:  
**Chesapeake Appalachia LLC**  
Van Aston Pad  
051-00208

  
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*William F. Durham*  
Director

*Issued: December 3, 2014 • Effective: December 3, 2014*

Facility Location: Near Moundsville, Marshall County, West Virginia  
Mailing Address: P.O. Box 18496  
Oklahoma City, OK 73154-0496  
Facility Description: Natural Gas/Condensate Production Facility  
NAICS Code: 211111  
SIC Code: 1311  
UTM Coordinates: 529.890 km Easting • 4,410.950 km Northing • Zone 17  
Longitude Coordinate: -80.65061  
Latitude Coordinate: 39.84805  
Directions to Facility: From the intersection of US 250 and SR 2 in Moundsville, travel east on US 250 for approximately 14.2 miles to the intersection of US 250 and CR 17 (Fork Ridge Road). Turn right onto CR 17 (Fork Ridge Road) and travel approximately 3.8 miles to CR 17/2 (Brushy Run). Travel approximately 0.7 miles on CR 17/2 and the road to the facility is on the left.  
Description of Change: Installation and operation of three (3) 145-bhp flash gas compressor engines, four (4) 1.0-mmBtu/hr gas production unit (GPU) burners, two (2) 0.5-mmBtu/hr heater treaters, one (1) 30-mmscfd TEG dehydration unit with associated 0.75 mmBtu/hr reboiler, five (5) 400-bbl condensate tanks, five (5) 400-bbl produced water tanks, and a 30 mmBtu/hr vapor combustor with associated three (3) 50 scfd pilots.

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

Subject to 40CFR60, Subpart JJJJ? No

Subject to 40CFR63, Subpart ZZZZ? Yes, all engines are subject to this regulation, but have no requirements.

Subject to 40CFR63, Subpart HH? Yes

*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 checked="" type="checkbox"/>
Section 13	Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (NSPS, Subpart JJJJ)	<input 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 checked="" type="checkbox"/>
Section 17	Dehydration Units With Exemption from NESHAP Standard, Subpart HH § 63.764(d) (40CFR63, Subpart HH)	<input checked="" 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
EU-MC2071	EP-MC2071	Caterpillar G3306 Engine	NSCR	2014	145	bhp	10, 13, 15
EU-MC2536	EP-MC2536	Caterpillar G3306 Engine	NSCR	2014	145	bhp	10, 13, 15
EU-MC2548	EP-MC2548	Caterpillar G3306 Engine	NSCR	2014	145	bhp	10, 13, 15
EU-GPU1	EP-GPU1	Gas Production Unit Burners	N/A	2014	1.0	MMBtu/hr	7
EU-GPU2	EP-GPU2	Gas Production Unit Burners	N/A	2014	1.0	MMBtu/hr	7
EU-GPU3	EP-GPU3	Gas Production Unit Burners	N/A	2014	1.0	MMBtu/hr	7
EU-GPU4	EP-GPU4	Gas Production Unit Burners	N/A	2014	1.0	MMBtu/hr	7
EU-HT1	EP-HT1	Heater Treater	N/A	2014	0.5	MMBtu/hr	7
EU-HT2	EP-HT2	Heater Treater	N/A	2014	0.5	MMBtu/hr	7
EU-PILOTS	EP-PILOTS	Vapor Combustor Pilots	N/A	2014	150 (total)	scf	
EU-DEHY1	EP-DEHY1	TEG Dehydration Unit Still Vent	Condenser/ EU-RB1	2014	30	mmscfd	16, 17
EU-RB1	EP-RB1	TEG Dehydration Reboiler	N/A	2014	0.75	mmBtu/hr	7
EU-TANKS-COND	EP-TANKS-COND	Five (5) Condensate Tanks	APC-COMB-TKLD	2014	400 (each)	BBL	6
EU-TANKS-PW	EP-TANKS-PW	Five (5) Produced Water Tanks	APC-COMB-TKLD	2014	400 (each)	BBL	6
EU-LOAD-COND	EP-LOAD-COND	Condensate Truck Loading	Vapor Balance	2014	12,264,0000	gallon/yr	11, 14
EU-LOAD-PW	EP-LOAD-PW	Produced Water Truck Loading	Vapor Balance	2014	15,330,000	gallon/yr	11, 14
APC-COMB-TKLD	APC-COMB-TKLD	Vapor Combustor	N/A	2014	30	MMBtu/hr	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
NSCR (EU-MC2071, EU-MC2536, EU-MC2548)	NOx, 92.58% CO, 85.15%	Catalysts	2014	-	-	10, 13, 15
APC-COMB-TKLD	98%	MRW Technologies, Inc.	2014	30	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?					Yes	6.0, 12.0
Was a low pressure tower(s) used to determine emission limits?					Yes	6.0

**2.0 Oil and Natural Gas Wells Table**

API number	API number	API number
4705101690	4705101447	4705101447
4705101689		

**3.0 Emission Limitations**

Emission Unit ID	Emission Point ID	Emission Unit Description	Regulated Pollutant	Maximum Potential Emissions	
				Hourly (lb/hr)	Annual (tpy)
EU-MC2071 EU-MC2536 EU-MC2548	EP-MC2071 EP-MC2536 EP-MC2548	Caterpillar G3306 (emissions from each)	Nitrogen Oxides	0.64	2.80
			Carbon Monoxide	0.64	2.80
			Volatile Organic Compounds	0.24	1.05
			Formaldehyde	0.02	0.09
EU-GPU1 Through EU-GPU4	EP-GPU1 Through EP-GPU4	GPU Burner (emissions from each)	Nitrogen Oxides	0.11	0.48
			Carbon Monoxide	0.09	0.39
EU-HT1 and EU-HT2	EP-HT1 and EP-HT2	Heater Treater (emissions from each)	Nitrogen Oxides	0.06	0.26
			Carbon Monoxide	0.05	0.22
EU-DEHY1	EP-DEHY1	TEG Dehydration Unit Still Vent	Volatile Organic Compounds	2.11	9.24
			Benzene	0.11	0.46
			Ethylbenzene	0.01	0.11
			n-Hexane	0.06	0.24
			Toluene	0.12	0.52
			Xylenes	0.06	0.27
EU-RB1	EP-RB1	TEG Dehydration Unit Reboiler	Nitrogen Oxides	0.08	0.35
			Carbon Monoxide	0.07	0.31
EU-TANKS- COND	EP-TANKS- COND	Five (5) Condensate Tanks	Volatile Organic Compounds	6.57	28.77
			Benzene	0.01	0.02
			Ethylbenzene	0.03	0.12
			n-Hexane	0.22	0.97
			Toluene	0.03	0.12
			Xylenes	0.07	0.31
EU-TANKS- PW	EP-TANKS- PW	Five (5) Produced Water Tanks	Volatile Organic Compounds	0.05	0.23
			Benzene	0.01	0.02
			Ethylbenzene	0.01	0.03
			n-Hexane	0.07	0.30
			Toluene	0.01	0.05
			Xylenes	0.02	0.08
EU-LOAD- COND	EP-LOAD- COND	Condensate Truck Loading	Volatile Organic Compounds	3.68	16.12
			Benzene	0.01	0.02
			Ethylbenzene	0.02	0.11
			n-Hexane	0.20	0.88
			Toluene	0.02	0.11
			Xylenes	0.06	0.28
EU-LOAD- PW	EP-LOAD- PW	Produced Water Truck Loading	Volatile Organic Compounds	0.04	0.18
			n-Hexane	0.01	0.01
APC-COMB- TKLD	APC- COMB- TKLD	Vapor Combustor	Nitrogen Oxides	4.14	18.13
			Carbon Monoxide	8.27	36.22
			Volatile Organic Compounds	6.02	26.37

			Total Particulate Matter	0.09	0.39
			Benzene	0.01	0.04
			Ethylbenzene	0.02	0.15
			n-Hexane	0.22	1.27
			Toluene	0.04	0.17
			Xylenes	0.09	0.39
EU-PILOTS	EP-PILOTS	Vapor Combustor Pilots	Nitrogen Oxides	0.02	0.09
			Carbon Monoxide	0.01	0.06

#### 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-LOAD-COND	EP-LOAD-COND	Condensate Truck Loading	12,264,000 gallons/year
EU-LOAD-PW	EP-LOAD-PW	Produced Water Truck Loading	15,330,000 gallons/year
APC-COMB-TKLD	APC-COMB-TKLD	Vapor Combustor	186.5 scfm (Maximum Waste Gas)

#### 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)
EU-MC2071	9/27/2006	No	Yes	Yes
EU-MC2536	4/10/2008	No	Yes	Yes
EU-MC2548	4/14/2008	No	Yes	Yes