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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)

August 26, 2015

CERTIFIED MAIL  
91 7199 9991 7035 6611 2971

RJ Moses  
1000 Noble Energy Drive  
Canonsburg, PA 15317

RE: Approved Registration G70-A155A  
Noble Energy, Inc.  
Pennsboro II  
Facility ID No. 085-00052

Dear Mr. Moses:

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-A155A

*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 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-A155A**

Issued to:  
**Noble Energy, Inc.**  
**Pennsboro II**  
**085-00052**

A blue ink signature of William F. Durham, written in a cursive style, is positioned above a horizontal line.

*William F. Durham  
Director*

*Issued: August 26, 2015*

Facility Location: Pennsboro, Ritchie County, West Virginia  
Mailing Address: 333 Technology Drive, Suite 116, Canonsburg, PA 15317  
Facility Description: Natural Gas Production  
NAICS Code: 211111  
SIC Code: 1311  
UTM Coordinates: 498.940 km Easting • 4,354.140 km Northing • Zone 17  
Longitude Coordinates: -81.01235  
Latitude Coordinates: 39.33664  
Directions to Facility: From I79, take exit 119 and follow Route 50 west for 39.8 miles. Make a right onto WV-74 (N. Pullman Drive) and follow for 0.4 miles. Make a left onto E. Myles Avenue / Old US 50 E and follow for 0.6 miles. Turn right onto Grey Street and then sharp left onto E. Penn Avenue. Take the second right onto 1st Street and continue onto WV-74 N / Mountain Drive for 3 miles. Turn left onto Bonds Creek Road and follow for 3.5 miles then make a right onto Branch Bonds Creek Road then continue onto Stone Road.  
Registration Type: Construction  
Description of Change: Replacement of existing compressor engine with a smaller unit.

Subject to 40CFR60, Subpart OOOO? Yes

Subject to 40CFR60, Subpart JJJJ? No

Subject to 40CFR63, Subpart ZZZZ? Yes

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 checked="" 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 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
1STK 1-10	14E-VRU	(10) Cond. Tanks	14E-VRU	2015	400	bbl	6 & 14
2STK 11-30	14E-VRU	(20) Produced Water Tanks	14E-VRU	2015	400	bbl	6 & 14
3S-ENG1	3E-ENG1	Caterpillar 3406TA Engine	3C - NSCR	2015	276	hp	10,13&15
3S-ENG2	3E-ENG2	Gas Jack GJ230	3C - NSCR	2015	46	hp	10,13&15
4S-GPU 1-12	4E-GPU 1-12	(12) GPU Heaters	--	2015	1.0	mmBtu/hr	7
5S - LP	5E-LP	Low Pressure Separator Heater	--	2015	1.0	mmBtu/hr	7
6S - TL1	8E - COMB1	Cond. Loading	8C-COMB1	2015	3,740,000	gal/yr	11
7S - TL2	8E - COMB1	P.W. Loading	8C-COMB1	2015	45,920,000	gal/yr	11
8S - COMB1	8E - COMB1	Vapor Combustor	--	2015	7000	Scf/hr	14
9S - Pilot1	9E - Pilot1	Vapor Combustor Pilot	--	2015	12.5	Scf/hr	14
10S - TE Gen	10E - TE Gen	Thermoelectric Generator	--	2015	7.4	Gal/day Propane	7
11S - LH	11E - LH	Line Heater	--	2015	1.0	mmBtu/hr	7
12S - Flare	12E - Flare	Emergency Flare	--	2015	16,417	Scf/hr	14
13S - Pilot	13E - Pilot	Emergency Flare Pilot	--	2015	12.5	Scf/hr	14
14S - VRU	14E - VRU	Vapor Recovery Unit	--	2015	46	Hp	10,13&15

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
8S – COMB1	98 (VOC)	Leed LDF1350 Vapor Comb.	2015	168,000	scfd	14
12S – FLARE	98 (VOC)	National Oilwell Varco	2015	394,000	Scfd	14
3C – NSCR	88 (NOx), 78.3 (CO)	Non Selective Catalytic Reduction	2015	--	--	10, 13, 15
Emission Reduction Systems					Yes or No	G-70A Applicable Sections
Was a vapor recovery system (VRU) used to determine emission limits?					Yes	10,13,15
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
047-085-10055	047-085-10070	047-085-10075
047-085-10066	047-085-10071	047-085-10076
047-085-10067	047-085-10072	
047-085-10068	047-085-10073	
047-085-10069	047-085-10074	

### 3.0 Emission Limitations

Emission Unit ID	Emission Point ID	Emission Unit Description	Regulated Pollutant	Maximum Potential Emissions	
				Hourly (lb/hr)	Annual (tpy)
1S-TK1-10	14E-VRU	(10) 400 BBL Condensate Tanks	Volatile Organic Compounds	10.75	47.08
			Total HAPs	0.03	0.14
2S-TK11-30	14E-VRU	(20) 400 BBL Prod. Water Tank	Volatile Organic Compounds	0.36	1.56
			Total HAPs	0.01	0.02
3S-ENG1	3E-ENG1	Caterpillar 3406TA Compressor Engine	Nitrogen Oxides	0.72	3.14
			Carbon Monoxide	1.43	6.28
			Volatile Organic Compounds	0.50	2.20
			Formaldehyde	0.05	0.22
3S-ENG2	3E-ENG2	Gas Jack GJ230 VRU Engine	Nitrogen Oxides	0.20	0.89
			Carbon Monoxide	0.41	1.78
			Volatile Organic Compounds	0.10	0.44
4S-GPU 1-12	4E-GPU 1-12	(12) 1.0 mmBtu/hr GPU Burners	Nitrogen Oxides	0.96	4.32
5S-LP	5E-LP	1.0 mmBtu/hr Low Pressure Separator Heater	Carbon Monoxide	0.84	3.60
			Nitrogen Oxides	0.08	0.36
6S-TL1	8E-COMB1	Condensate Truck Loading	Carbon Monoxide	0.07	0.30
			Volatile Organic Compounds	2.46	10.79
8S-COMB1	8E-COMB1	Vapor Combustor	Total HAPs	0.62	2.72
			Nitrogen Oxides	0.71	3.13
11S-LH	11E-LH	1.0 mmBtu/hr Line Heater	Carbon Monoxide	3.89	17.02
			Nitrogen Oxides	0.08	0.36
12S-FLARE	12E-FLARE	Emergency Flare	Carbon Monoxide	0.07	0.30
			Nitrogen Oxides	1.34	0.59
			Carbon Monoxide	7.29	3.19

#### 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
6E-TL1	8E COMB1	Condensate Truck Loading	3,740,000 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)
3E-ENG1	Before 6/12/06	No	Yes	Yes
3E-ENG2	6/13/2007	Yes	Yes (JJJJ Only)	Yes