



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

November 18, 2015

CERTIFIED MAIL
91 7199 9991 7035 6613 3099

Mr. RJ Moses
Noble Energy, Inc.
1000 Noble Energy Drive
Canonsburg, PA 15317

RE: Approved Registration G70-A038B
Noble Energy, Inc.
SHR1
Permit Application G70-A038B
Plant ID No. 095-00036

Dear Mr. Moses:

The Director has determined that the submitted Class I Administrative Update Application and proposed Administrative Updates 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/dag/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. 1258 or Caraline.F.Griffith@wv.gov.

Sincerely,

Caraline Griffith
Permit Engineer

Enclosures: Registration G70-A111B
c: Clayton Murrall
Environmental Contact

*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 for Class I
Administrative 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-A038B

Issued to:
Noble Energy, Inc.
Shirley1 (SHR1) Production Facility
095-00036

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

*William F. Durham
Director*

Issued: November 18, 2015

This permit registration replaces and supersedes G70-A038A.

Facility Location: Centerville, Tyler County, West Virginia
Mailing Address: 333 Technology Drive, Suite 110, Canonsburg, PA 15317
Facility Description: Natural Gas Production Facility
NAICS Code: 211111
SIC Code: 1311
UTM Coordinates: 513.255 km Easting • 4362.828 km Northing • Zone 17
Longitude Coordinates: 39.41487
Latitude Coordinates: -80.84602
Directions to Facility: From Charleston: I-77 North for approximately 75 miles to exit 176. East on US-50 for approximately 32 miles. North on WV 74 for approximately 11 miles. North on WV 18 for approximately 3 miles. Entrance is on left.
Registration Type: Class I Administrative Update
Description of Change: Removing one (1) Gas Jack GJ230; updating to reflect five produced water tanks and five condensate tanks.

Subject to 40CFR60, Subpart OOOO? Yes. The gas wells that exist at the SHR1 Production Facility were drilled principally for the production of natural gas and were done so after August 23, 2011.

Subject to 40CFR60, Subpart JJJJ? No, engine (3S-ENG1) is not subject due to the manufacture date of pre 6/12/2006.

Subject to 40CFR63, Subpart ZZZZ? Yes, must comply with requirements in Table 2b and 2d in Subpart ZZZZ. Must also comply with any and all applicable rules regarding monitoring, recordkeeping, and reporting.

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	<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	Control Device ID	Year Installed / Modified	Max. Design Capacity	Design Capacity Unit of Measure	G70-A Applicable Sections
1S-TK1-5	8E-COMB	5 (5) Condensate Storage Tanks	8C-COMB	2014	400	bbl	6.0, 14.0
2S-TK6-10	8E-COMB	5 (5) Produced Water Storage Tanks	8C-COMB	2014	400	bbl	6.0, 14.0
3S-ENG1	3E-ENG1	Caterpillar G342TA 4SRB Engine	NSCR with interlock	2015	265	hp	10.0, 13.0, 15.0
4S-GPU1-6	4E-GPU1-6	Six (6) Gas Processing Units	None	2014	1.0	MMBtu/hr	7.0
5S-LP	5E-LP	LP Separator Heater	None	2014	0.75	MMBtu/hr	7.0
6S-TL1	6E-TL1	Condensate Truck Loading	None	2014	30,660,000	gal/yr	11.0
7S-TL2	7E-TL2	Produced Water Truck Loading	None	2014	38,325,000	gal/yr	11.0
8S-COMB1-2	8E-COMB1-2	Vapor Combustor Units	8C-COMB	2014	5,833	scfh	14.0
9S-PILOT	9E-PILOT	Vapor Combustor Pilots	NA	2014	40	scfh	14.0
10S-COMB	10E-COMB	Flare	NA	2014	3	mmscfd	14.0
11S-PILOT	11E-PILOT	Flare Pilot	NA	2014	60	scfh	14.0
12S-TE GEN	12E-TE GEN	Thermoelectric Generator	None	2014	Demin	NA	NA
Control Devices							
Control Device ID	Control Efficiency %	Control Device Description	Year Installed / Modified	Max. Design Capacity	Design Capacity Unit of Measure	G-70A Applicable Sections	
8C	98% - VOC 98% - HAP	Vapor Combustor Units	2014	5,833	scfh	14.0	
10C	98% - VOC 98% - HAP	Backup Flare	2014	3	mmscfd	14.0	
NSCR with Interlock	84.49% - NOx 71.59% - CO	NSCR (Non-selective catalytic reduction for rich burn engines)	2015	NA	NA	10.0, 13.0, 15.0	
3C - NSCR	88.0 % - NOx	NSCR (Non-selective catalytic reduction for rich burn engines)	2013	NA	NA	10.0, 13.0, 15.0	

	78.3 % - CO				
Emission Reduction Systems				Yes or No	G-70A Applicable Sections
Was a vapor recovery system (VRU) used to determine emission limits?				Yes	6.0, 14.0
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
047-95-02111	047-95-02109	047-95-02110
047-95-02112	047-95-02113	047-95-02114

3.0 Emission Limitations

Emission Unit ID	Emission Point ID	Emission Unit Description	Regulated Pollutant	Maximum Potential Emissions	
				Hourly (lb/hr)	Annual (tpy)
3S-ENG1	3E-ENG1	265 hp Caterpillar G342TA Engine	Nitrogen Oxides	0.89	3.89
			Carbon Monoxide	1.78	7.78
			Volatile Organic Compounds	0.62	2.71
8S-COMB 1-2	8E-COMB 1-2	Storage Tanks / Condensate Truck Loading /Produced Water Truck Loading/ Vapor Combustor Units	Volatile Organic Compounds	17.55	7.79
10S-COMB	10E-COMB	Backup Flare	Volatile Organic Compounds	81.54	36.20

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
1S-TK1-10	8E-COMB 1-2	Five (5) - 400 bbl Condensate Storage Tanks	30,660,000 gal/yr (all tanks combined)
2S-TK11-21	8E-COM1-2	Five (5) 400 bbl Produced Water Storage Tanks	38,325,000 gal/yr (all tanks combined)
3S-ENG1	3E-ENG1	Caterpillar G342TA 4SRB Engine	14.11 MMscf/yr
6S-TL1	8E-COMB 1-2	Condensate Truck Loading	30,660,000 gal/yr
7S-TL2	8E-COMB 1-2	Produced Water Truck Loading	38,325,000 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)
3S-ENG1	Pre 6/12/2006	No	Yes	Yes