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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

Joe Manchin, III, Governor  
Randy C. Huffman, Cabinet Secretary  
[www.wvdep.org](http://www.wvdep.org)

November 23, 2015

CERTIFIED MAIL  
91 7199 9991 7035 6613 3105

Mr. Paul Geiger  
SWN Production Company, LLC  
10000 Energy Drive  
Spring, TX 77389

RE: Approved Registration G70-A182  
SWN Production Company, LLC  
Bonnette Pad  
051-00155

Dear Mr. Geiger:

The Director has determined that the submitted Registration Application and proposed modification and operation of a natural gas compressor station 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.

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.

Sincerely,

Caraline Griffith  
Permit Engineer

Enclosures: Registration G70-A182  
General Permit G70-A

c: Kristi Evans - Contact  
SWN Production Company

*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-A182**

Issued to:  
**SWN Production Company, LLC**  
Bonnette Pad  
051-00155

A blue ink signature of William F. Durham, written over a horizontal line.

*William F. Durham  
Director*

*Issued: November 23, 2015*

This Class II General Permit Registration will supersede and replace R13-3017A.

Facility Location: Proctor, Marshall County, West Virginia  
Mailing Address: 10000 Energy Drive  
Spring, TX 77389  
Facility Description: Natural Gas Well Pad  
NAICS Code: 211111  
SIC Code: 1311  
UTM Coordinates: 524.68 km Easting • 4,396.88 km Northing • Zone 17T  
Longitude Coordinates: -80.71203  
Latitude Coordinates: 39.72144

Directions to Facility: Merge onto Interstate 79N toward US-19. Take Exit 137 toward West Virginia 310N/Co Road 3/1/E Grafton Road. Turn left at West Virginia 310 N/Co Road/3/1/E Grafton Road and continue to follow West Virginia 310 N/E Grafton Road for 0.4 miles. Turn left at E. Park Avenue and after 1 mile take slight left at Merchant Street. Take third right onto Jefferson Street and after 0.4 miles turn right at US-19 S/US-250 N. Continue on US 250 N for 37.4 miles. Turn left at Amos Hollow Road/Co Route 89 and go 3.3 miles. Turn left to stay on Amos Hollow Road/Co Route 89. Continue on Co Road 89 for 9.1 miles. Turn right to stay on Co Road 89 for 62 feet, then turn right to stay on Co Road 89 and go 3.1 miles. Make sharp right to stay on Co Road 4/St. Joseph Baker Hill and continue 2.2 miles. Turn left to stay on Co Road 4/St. Joseph Baker Hill and go 2 miles. Take slight right to stay on Co Road 4/St. Joseph Baker Hill for 0.2 miles. Continue onto Co Route 21/Emr Route 2. Well pad access will be on the left after 144 feet.

Registration Type: Modification  
Description of Change: Removal of all previously permitted equipment. Installation of: Two compressor engines, eight gas production units, two heaters, one low pressure tower, three condensate tanks, three produced water tanks, one VRU with engine, and a vapor combustor will be added to the site. Fugitive emissions, condensate loading, produced water loading, and haul road emissions will also occur.

Subject to 40CFR60, Subpart OOOO?

Subject to 40CFR60, Subpart JJJJ? Yes. The two Caterpillar engines and the GM Bucks engine are not certified.

Subject to 40CFR63, Subpart ZZZZ? Yes, these engines demonstrate compliance with Subpart ZZZZ by complying with Subpart JJJJ.

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 checked="" 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
EU-ENG1	EP-ENG1	Caterpillar G3306 NA Engine	NCSR	2015	145	hp	10, 13, 15
EU-ENG2	EP-ENG2	Caterpillar G3306 NA Engine	NCSR	2015	145	hp	10, 13, 15
EU-ENG3	EP-ENG3	Bucks GM Vortec 5.7L	NCSR	2015	146.2	kW	10, 13, 15
EU-GPU1	EP-GPU1	GPU Burner	None	2015	1.0	mmBTU/hr	7
EU-GPU2	EP-GPU2	GPU Burner	None	2015	1.0	mmBTU/hr	7
EU-GPU3	EP-GPU3	GPU Burner	None	2015	1.0	mmBTU/hr	7
EU-GPU4	EP-GPU4	GPU Burner	None	2015	1.0	mmBTU/hr	7
EU-GPU5	EP-GPU5	GPU Burner	None	2015	1.0	mmBTU/hr	7
EU-GPU6	EP-GPU6	GPU Burner	None	2015	1.0	mmBTU/hr	7
EU-GPU7	EP-GPU7	GPU Burner	None	2015	1.0	mmBTU/hr	7
EU-GPU8	EP-GPU8	GPU Burner	None	2015	1.0	mmBTU/hr	7
EU-HT1	EP-HT1	Heater Treater	None	2015	0.5	mmBTU/hr	7
EU-HT2	EP-HT2	Heater Treater	None	2015	0.5	mmBTU/hr	7
EU-TANKS-COND	APC-COMB-TKLD	Three (3) Condensate Tanks	APC-COMB-TKLD	2015	400	bbl each	6, 12
EU-TANKS-PW	APC-COMB-TKLD	Three (3) Produced Water Tanks	APC-COMB-TKLD	2015	400	bbl each	6, 12
EU-LOAD-COND	EP-LOAD-COND	Condensate Truck Loading	Vapor Return and APC-COMB-TKLD	NA	19,929,000	gal/yr	11
EU-LOAD-PW	EP-LOAD-PW	Produced Water Truck Loading	Vapor Return and APC-COMB-TKLD	NA	15,330,000	gal/yr	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	
APC-COMB-TKLD	98%	Vapor Combustor	2015	15.0	mmBTU/hr	14	

EU-PILOT	98%	Vapor Combustor Pilot	2015	50	SCFH	14
Emission Reduction Systems					Yes or No	G-70A Applicable Sections
Was a vapor recovery system (VRU) used to determine emission limits?					Yes	14
Was a low pressure tower(s) used to determine emission limits?					Yes	14

### 2.0 Oil and Natural Gas Wells Table

API number	API number	API number
47-5101308	47-5101830	
47-5101827	47-5101831	
47-5101326	47-5101832	
47-5101828		
47-5101829		

### 3.0 Emission Limitations

Emission ID	Emission Unit	Pollutant	Maximum PTE	
			lb/hr	TPY
EU-ENG1	Caterpillar G3306 NA	NOx	0.32	1.40
		CO	0.64	2.80
		VOC	0.24	1.05
EU-ENG2	Caterpillar G3306 NA	NOx	0.32	1.40
		CO	0.64	2.80
		VOC	0.24	1.05
EU-ENG3	Bucks GM Vortec 5.7L	NOx	0.43	1.88
		CO	0.86	3.77
		VOC	0.30	1.31
EU-GPU1 to EU-GPU8	Eight (8) 1.0 mmBTU/hr GPU Burners Each	NOx	0.11	0.48
		CO	0.09	0.39
		VOC	0.01	0.03
EU-HT1 and EU-HT2	Two (2) 0.5 mmBTU/hr Heater Treaters	NOx	0.06	0.26
		CO	0.05	0.22
EU-LOAD-COND	Condensate Truck Loading with Vapor Return Routed to Combustor	VOC	3.97	17.37
EU-LOAD-PW	Produced Water Truck Loading with Vapor Return Routed to Combustor	VOC	0.04	0.16
APC-COMB-TKLD	15.0 mmBTU/hr Vapor Combustor – Tank/Loading System	NOx	2.07	9.07
		CO	4.13	18.09
		VOC	5.15	22.56
EU-PILOT	Vapor Combustor Pilot	NOx	0.01	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
EU-TANKS-COND	EP-TANKS-COND	Three (3) 400 bbl Condensate Tanks	19,929,000 gal/year
EU-TANKS-PW	EP-TANKS-PW	Three (3) Produced Water Tanks	15,330,000 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)
EU-ENG1	After 07/01/08	Yes	Yes	Yes
EU-ENG2	After 07/01/08	Yes	Yes	Yes
EU-ENG3	After 07/01/08	Yes	Yes	Yes