

west virginia department of environmental protection

Division of Air Quality 601 57th Street SE Charleston, WV 25304 Phone 304/926-0475 Joe Manchin, III, Governor Randy C. Huffman, Cabinet Secretary www.wvdep.org

October 14, 2015

CERTIFIED MAIL 91 7199 9991 7035 6613 3044

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

RE:

Approved Registration G70-A174

SWN Production Company, LLC

Betty Schafer Pad

051-00221

Dear Mr. Geiger:

The Director has determined that the submitted Registration Application and proposed construction 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-A174

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 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-A174

Issued to:

SWN Production Company, LLC Betty Schafer Pad

051-00221

William F. Durham

Director

Issued: October 14, 2015

Facility Location:

Wheeling, 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:

530.82362 km Easting • 4,427.012 km Northing • Zone 17S

Longitude Coordinates: Latitude Coordinates: 39.992724

-80.638936

Directions to Facility:

From Exit 2 on I-470, travel south on CR 91/1, W. Bethlehem Blvd. for 0.45 miles. Turn right on WV-88, Ridgecrest Rd., go 8.2 miles. Turn left on US-250, go 1.5 miles. Turn left on McCreary's Ridge Rd. CR 44, go 0.3 miles. Stay left on McCreary's Ridge Rd CR 7, go 3.7 miles. Turn left on Big Wheeling Creek Rd. CR 5, go 1.6 miles. Turn right to

stay on Big Wheeling Creek RD CR 5, go 2.0 miles. Entrance is on the right.

Registration Type:

Construction

Description of Change:

SWN Production Company, LLC is constructing a new Natural Gas Well Pad at this

Location.

Subject to 40CFR60, Subpart OOOO? Yes

Subject to 40CFR60, Subpart JJJJ? Yes. The Zenith engine is certified, but the two Caterpillar engines and the GM Vortec Engine are not certified.

Subject to 40CFR63, Subpart ZZZZ? Yes, compliance is demonstrated by complying with all relevant parts in NSPS 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.

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*	\boxtimes
Section 7	Gas Production Units, In-Line Heaters, Heater Treaters, and Glycol Dehydration Reboilers	\boxtimes
Section 8	Pneumatic Controllers Affected Facility (NSPS, Subpart OOOO)	
Section 9	Reserved	
Section 10	Natural Gas-Fired Compressor Engine (s) (RICE)**	\boxtimes
Section 11	Tank Truck Loading Facility***	\boxtimes
Section 12	Standards of Performance for Storage Vessel Affected Facilities (NSPS, Subpart OOOO)	\boxtimes
Section 13	Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (NSPS, Subpart JJJJ)	\boxtimes
Section 14	Control Devices not subject to NSPS, Subpart OOOO	\boxtimes
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 con	ntrol

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	Emission	Emission Unit	Control	Year	Max.	Ďasia	070 4
Unit ID	Point ID			Design	Design	G70-A	
		(Mfg., Model, Serial No.,	Device ID	Modified	Capacity	Capacity Unit of	Applicable Sections
	1	Engine type 2SLB,		Wiodifica	Capacity	Measure	Sections
		4SLB, 4SRB, etc.)				Tyleasute	•
EU-	EP-			145	hp	10, 13, 15	
ENG1	ENG1	Engine					10, 13, 13
EU-	EP-	Caterpillar 3306 NA				hp	10, 13, 15
ENG2	ENG2	Engine					
EU-	EP-	Zenith XPP-644 4.4L 6	NCSR	2015	77.0	kw	10, 13, 15
ENG3	ENG3	Cylinder Engine					
EU-	EP-	Bucks GM Vortec 5.7L	NCSR	2015	146.2	kw	10, 13, 15
ENG4	ENG4	Engine			-		6
EU-	EP-	GPU Burner	NA	2015	1.0	mmBTU/hr	7
GPU1 EU-	GPU1 EP-	CDILD	37.4	2017		<u> </u>	
GPU2	GPU2	GPU Burner	NA	2015	1.0	mmBTU/hr	7
EU-HT1	EP-HT1	Heater Treater	NA	2015	0.5	D.TT.I	
					0.5	mmBTU/hr	7
EU-HT2	EP-HT2	Heater Treater	NA	2015	0.5	mmBTU/hr	7
EU-	EP-	Four (4) Condensate	NA	2015	400	bbl Each	6, 12
Tanks-	Tanks-	Tanks			1		
Cond	Cond	T (A) B 1 1771					
EU- Tanks-	EP- Tanks-	Two (2) Produced Water	NA	2015	400	bbl Each	6, 12
PW	PW	Tanks	-]	
EU-	EP-	Condensate Truck	Vonos	NA	15 220 000	- C 1/	
Load-	Load-	Loading	Vapor Return and	INA.	15,330,000	Gal/yr	11
Cond	Cond	Loaumg	APC-	•	ĺ	}	
_ • 			COMB-				•
			TKLD				
EU-	EP-	Produced Water Truck	Vapor	NA	12,264,000	Gal/yr	11
Load-	Load-	Loading	Return and		,).	••
PW	PW]		APC-				
	1		COMB-				
			TKLD				
EU-Pilot	EP-Pilot	Vapor Combustor Pilot	NA	2015	100	SCFH	14
		Con	trol Devices (I	f applicable)			
Control	Control	Control Device Desc		Year	Max.	Design	G-70A
Device	Efficiency	(Mfg, Model)		Installed /	Design	Capacity	Applicable
ID	%			Modified	Capacity	Unit of	Sections
						Measure	
			J	·			
APC-	APC-	Vapor Combust	or	2015	20.0	mmBTU/hr	14
COMB-	COMB-						- '
TKLD	TKLD						
		<u>. </u>			-	-	G-70A
		Emission Reduction	Systems			Yes or No	Applicable
,					1 03 01 110	Sections	
Was a vapo	r recovery sy	stem (VRU) used to determ	ine emission li	mits?	-	Yes	14
Was a low pressure tower(s) used to determine emission limits?						No	
The a tow pressure tower(s) asca to determine emission mints:					INU	-	

2.0 Oil and Natural Gas Wells Table

API number	API number	API number
051-01776		

3.0 Emission Limitations

Emission Unit ID	Emission Point ID	Emission Unit Description	Regulated Pollutant	Maximum Potential Emissions	
			1 VII WILLIA	lb/hr	TPY
EU-ENG1	EP-ENG1	145-hp Caterpillar G3306 NA Engine w/Catalytic Converter	NOx	0.32	1.40
			CO	0.64	2.80
			VOC	0.24	1.05
EU-ENG2	EP-ENG2	145-hp Caterpillar G3306 NA	NOx	0.32	1.40
		Engine w/Catalytic Converter	CO	0.64	2.80
			VOC	0.24	1.05
EU-ENG3	EP-ENG3	77-kw Zenith ZPP-644 4, 4L 6	NOx	0.46	2.01
		Cylinder Engine	CO	0.75	3.29
			VOC	0.46	2.01
EU-ENG4	EP-ENG4	146.2-kw Bucks GM Vortec	NOx	0.43	1.68
		5.7L Engine	CO	0.86	3.77
			VOC	0.34	1.48
EU-GPU1	EP-GPU1	Two (2) 1.0-mmBTU/hr GPU	NOx	0.22	0.96
and EU-	and EP-	Burners	CO	0.10	0.44
GPU2	GPU2		VOC	0.01	0.06
EU-HT1 and	EP-HT1 and	Two (2) 0.5-mmBTU/hr Heater	NOx	0.12	0.52
EU-HT2	EP-HT2	Treaters	CO	0.10	0.44
·			VOC	0.01	0.02
EU-TANKS- COND	EP-TANKS- COND	Four (4) 400-bbl Condensate Tanks Routed to Vapor Combustor	VOC	10.29	45.07
EU-TANKS- PW	EP-TANKS- PW	Two (2) 400-bbl Produced Water Tanks routed to Vapor Combustor	VOC	0.03	0.12
EU-LOAD- COND	EP-LOAD- COND	Condensate Truck Loading w/ Vapor Return routed to Combustor	VOC	2.92	12.81
EU-LOAD- PW	EP-LOAD- PW	Produced Water Truck Loading w/ Vapor Return routed to Combustor	VOC	0.03	0.11
APC-COMB-	APC-	One (1) 20.0 mm/BTU/hr	NOx	2.76	12.09
TKLD	COMB-	Vapor Combustor – Loading	CO	5.51	24.13
•	TKLD	Stream	VOC	0.14	0.61
EU-PILOT	EP-PILOT	Vapor Combustor Pilot	NOx	0.01	0.04
			СО	0.01	0.04

4.0 Throughput Limitations

Throughput limits are on a 12-month rolling total basis.

Emission	Emission	Emission Unit Description	Annual Throughput
Unit ID	Point ID		Limit
EU-TANKS	EP-TANKS-	Four (4) 400 bbl Condensate	15,330,000 gal/yr
COND	COND	Tanks	
EU-	EP-TANKS-	Two (2) 400 bbl Produced Water	12,264,000 gal/yr
TANKS-PW	PW	Tanks	
EU-LOAD- COND	EP-LOAD- COND	Condensate Truck Loading	15,330,000 gal/yr
EU-LOAD- PW	EP-LOAD-PW	Produced Water Truck Loading	12,264,000 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 6/6/2006	Yes	Yes	Yes
EU-ENG2	After 6/6/2006	Yes	Yes	Yes
EU-ENG3	After 6/6/2006	Yes	Yes	Yes
EU-ENG4	After 6/6/2006	Yes	Yes	Yes